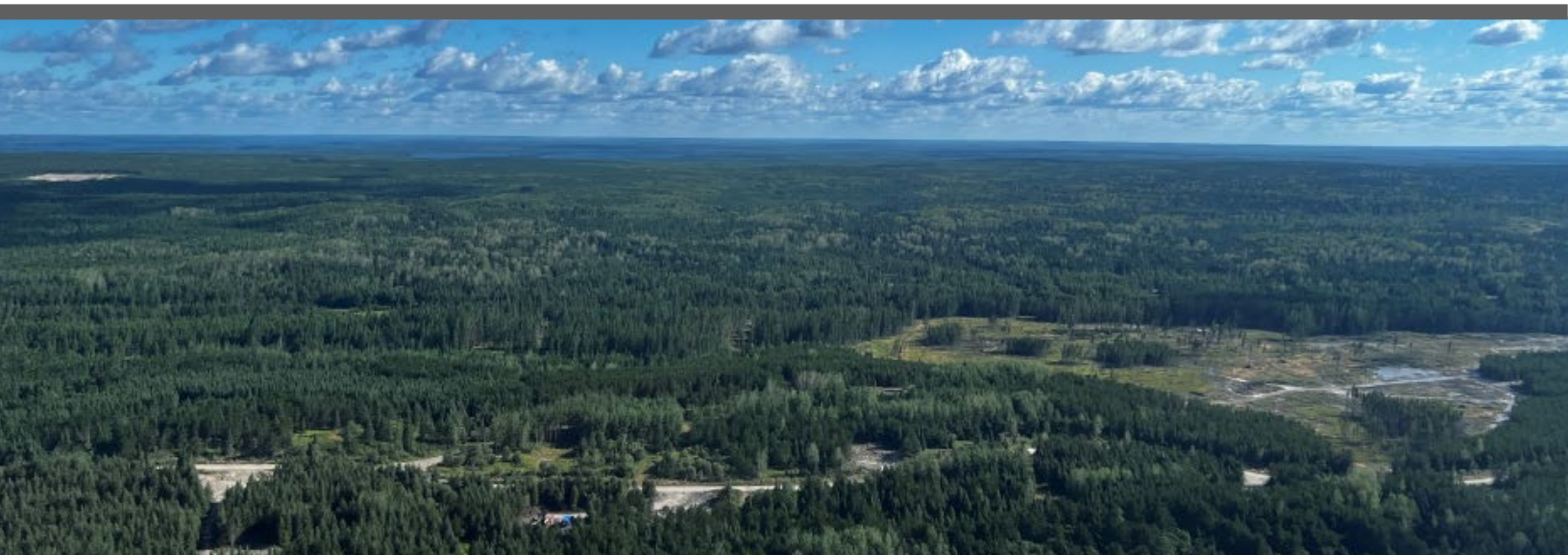
KINROSS Great Bear

Great Bear Gold Project
Impact Statement

Appendix K-1:

Water Quality Baseline Report



GREAT BEAR RESOURCES

GREAT BEAR PROJECT
WATER QUALITY BASELINE REPORT

JUNE 2025

GREAT BEAR PROJECT

WATER QUALITY BASELINE REPORT

GREAT BEAR RESOURCES

PROJECT NO.: OMEMA2303
June 2025

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ABBREVIATIONS

AEX	Advanced Exploration Program
BC WQG	British Columbia Water Quality Guidelines
°C	Degrees Celsius
CCME	Canadian Council of Ministers of the Environment
CWQG	Canadian Water Quality Guidelines
CVAAS	Cold Vapor Atomic Absorption Spectroscopy
CVAFS	Cold Vapor Atomic Florescence Spectroscopy
DDH	Diamond Drillholes
DO	Dissolved Oxygen
FEQG	Federal Environmental Quality Guideline
Great Bear Resources	Great Bear Resources Ltd.
km^2	Square kilometres
iPWQO	Interim Provincial Water Quality Objectives
km	Kilometres
LL-Mercury	Low Level Mercury
m	Metres
MDL	Method Detection Limit
µm	Micrometre
MECP	Ministry of the Environment Conservation and Parks
mg/L	Milligrams per Litre
ng/L	Nanograms per Litre
Property	The Great Bear Property
Project	The Great Bear Project
PWQO	Provincial Water Quality Objective
iPWQO	Interim Provincial Water Quality Objective
QA / QC	Quality Assurance / Quality Control
WQG PAL	Water Quality Guidelines for the Protection of Aquatic Life
WSP	WSP Canada Inc.

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

Great Bear Resources Ltd. (Great Bear Resources), a wholly owned subsidiary of Kinross Gold Corporation, proposes to develop a gold mine at the Great Bear Property (the Property). The Property is in the Red Lake mining district of northwestern Ontario, about 25 kilometres (km) southeast of the Municipality of Red Lake (Figure 1-1).

This document describes baseline water quality conditions in the area around the planned development and is one of a series of baseline reports prepared by WSP Canada Inc. (WSP) on behalf of Great Bear Resources.

This report documents water quality data collected from January 2020 through December 2024. It provides an update to the interim Water Quality Baseline Report (WSP 2025).

1.2 OBJECTIVES

The quality of water is an important indicator of ecosystem health, including for fish and fish habitat, wildlife and wildlife habitat and human health. Baseline water quality information provided herein will contribute to the body of knowledge in support of the impact assessment process and environmental approvals for the Great Bear Project (the Project).

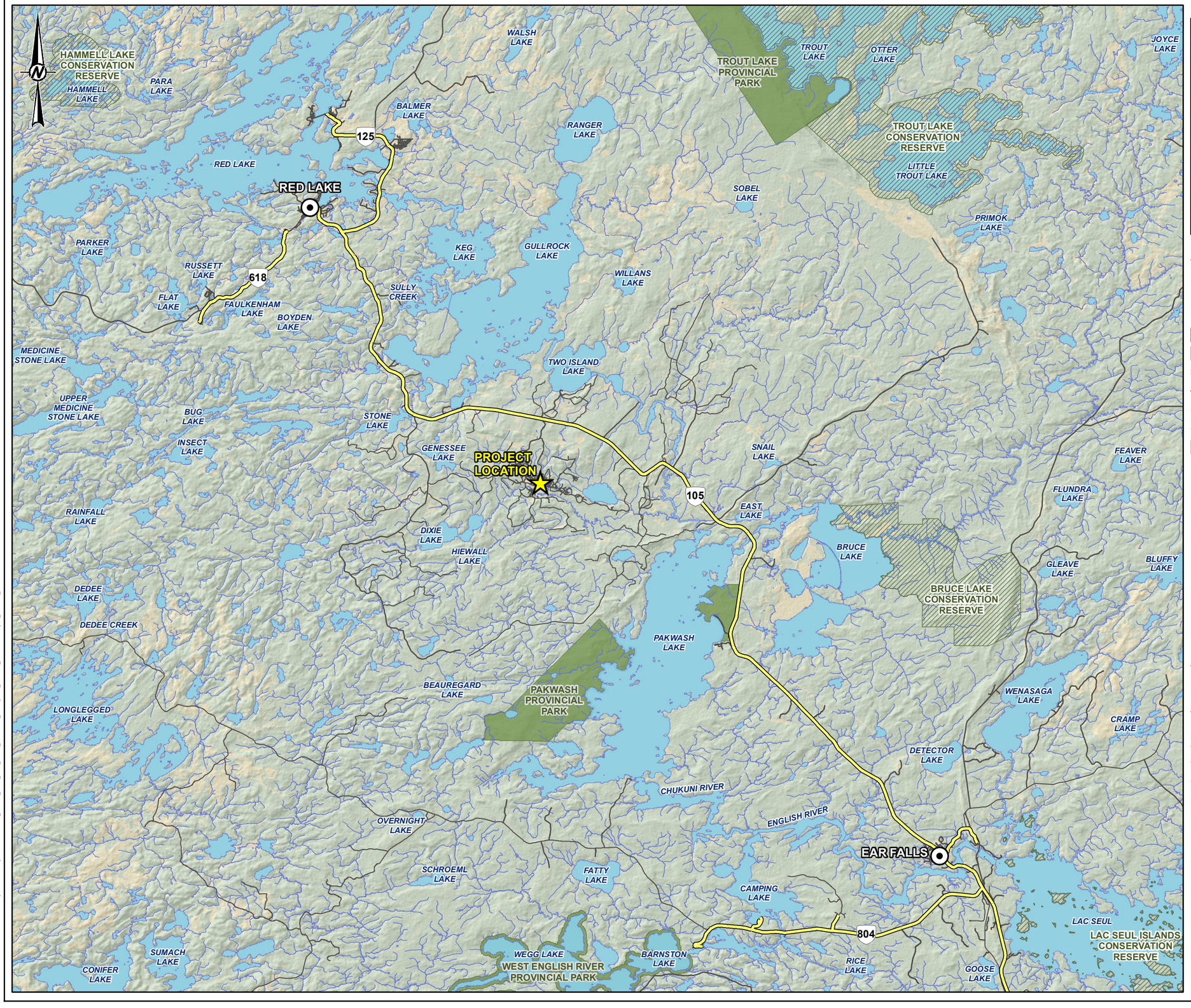
The objective of this Water Quality Baseline Report is to characterize baseline water quality conditions of surface waters (lakes, rivers and streams) and groundwater (water beneath the ground surface, e.g., stored within overburden and bedrock) in the area around the planned development. Baseline conditions refer to pre-Project, existing environmental conditions, consistent with industry-standard effects assessment methodologies and the Tailored Impact Statement Guidelines for the Project. This baseline study has been designed to be extensive and appropriate to inform the effects assessment. It encompasses a comprehensive network of monitoring stations strategically selected to capture and characterize spatial and temporal variations of existing water quality conditions.

1.3 DATA SOURCES

This report summarizes water quality data collected during the 2020 through December 2024 field programs, sourced as follows:

- Surface water quality field programs conducted by Blue Heron Environmental during 2020 and 2021 and by Great Bear Resources during 2022, 2023 and 2024. The surface water quality monitoring network is shown in Figure 1-2.
- Groundwater field programs conducted by Great Bear Resources in 2022, 2023, and 2024, with the monitoring network for 2022 and 2023 years shown in Figure 1-3. Prior to 2022, groundwater quality monitoring was completed on an ad hoc basis by previous property owners. Groundwater quality monitoring has continued through 2024, with the ongoing monitoring network shown in Figure 1-4.

Baseline hydrological monitoring (including water flow and water level monitoring) has occurred for key watercourses and waterbodies around the planned development (Figure 1-5). Baseline hydrological monitoring results are presented in a separate report; hydrological information most relevant to interpreting water quality results is summarized herein. The baseline groundwater investigation has included monitoring of groundwater flow, hydraulic gradient, hydraulic conductivity and water quality. Groundwater quality data results are presented in this report; reporting of other baseline hydrogeologic conditions is presented in a separate report.



KEY MAP

SCALE 1:30,000,000

LEGEND

- PROJECT LOCATION
- TOWN
- CONSERVATION RESERVE
- PROVINCIAL PARK
- HIGHWAY
- LOCAL ROAD
- RESOURCE/ RECREATION ROAD
- WATERCOURSE
- WATERBODY

0 2.5 5 10

1:250,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERCOURSES AND WATERBODY ACQUIRED FROM LAND INFORMATION ONTARIO (MNRF) AND MODIFIED TO MATCH AERIAL IMAGERY AND LIDAR.
3. ROADS INFORMATION PROVIDED BY KINROSS, AUGUST 2022.
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
PROJECT LOCATION

CONSULTANT
wsp

YYYY-MM-DD	2024-11-25
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031272	0001	A	1-1

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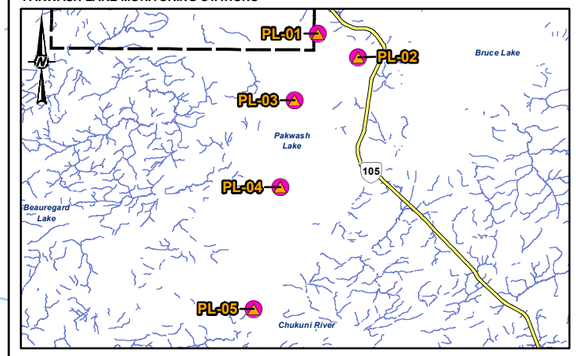
GRL-03
GULLROCK LAKE
TWO ISLAND LAKE
GRL-02
GRL-01
UNNAMED WATERCOURSE 10
MOOSE CREEK
SW-GL01
SW-18
SW-GL02
UNNAMED WATERCOURSE 12
STONE LAKE
SW-17
UNNAMED WATERCOURSE 8
105
CR-REF
UNNAMED WATERBODY 3
TUZYK'S ROAD
SW-16
UNNAMED WATERBODY 7
UNNAMED WATERBODY 4
SW-TR
UNNAMED WATERCOURSE 6B
SW-GL
SW-12
SW-05
SW-13
GENESSEE LAKE
CARIBOU CREEK
UNNAMED WATERBODY 1
UNNAMED WATERCOURSE 11
SW-01
UNNAMED WATERCOURSE 3
UNNAMED WATERBODY 2
SW-07
SW-06
SW-11
UNNAMED WATERCOURSE 6C
SW-12b
SW-04
SW-08a
UNNAMED WATERCOURSE 1
CR-FDP
SW-03
SW-02
SW-14
UNNAMED WATERCOURSE 6D
SW-08
UNNAMED WATERBODY 6
CHUKUNI RIVER
UNNAMED WATERCOURSE 5
SW-09
UNNAMED WATERCOURSE 6
DIXIE CREEK
GL-Trib
SW-15
DC-US
SW-10
CR-DS
DIXIE LAKE ROAD
PL-01
DIXIE LAKE
UNNAMED WATERCOURSE 7
DL-Ref
HIEWALL LAKE
TOTE ROAD LAKE
PAKWASH LAKE

PAKWASH LAKE MONITORING STATIONS



SCALE 1:350,000

LEGEND

- SURFACE WATER QUALITY MONITORING STATION
- METHLYMERCURY AND SUPPLEMENTAL ULTRALOW MERCURY MONITORING STATION
- PROPERTY BOUNDARY
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY
- FLOW DIRECTION

0 1 2 4
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NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
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2. AERIAL IMAGERY PROVIDED BY KINROSS (SCENE DATE: SEPTEMBER 2022).
3. PROPERTY BOUNDARY PROVIDED BY KINROSS, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY KINROSS, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
SURFACE WATER QUALITY MONITORING STATIONS (BASELINE)

CONSULTANT
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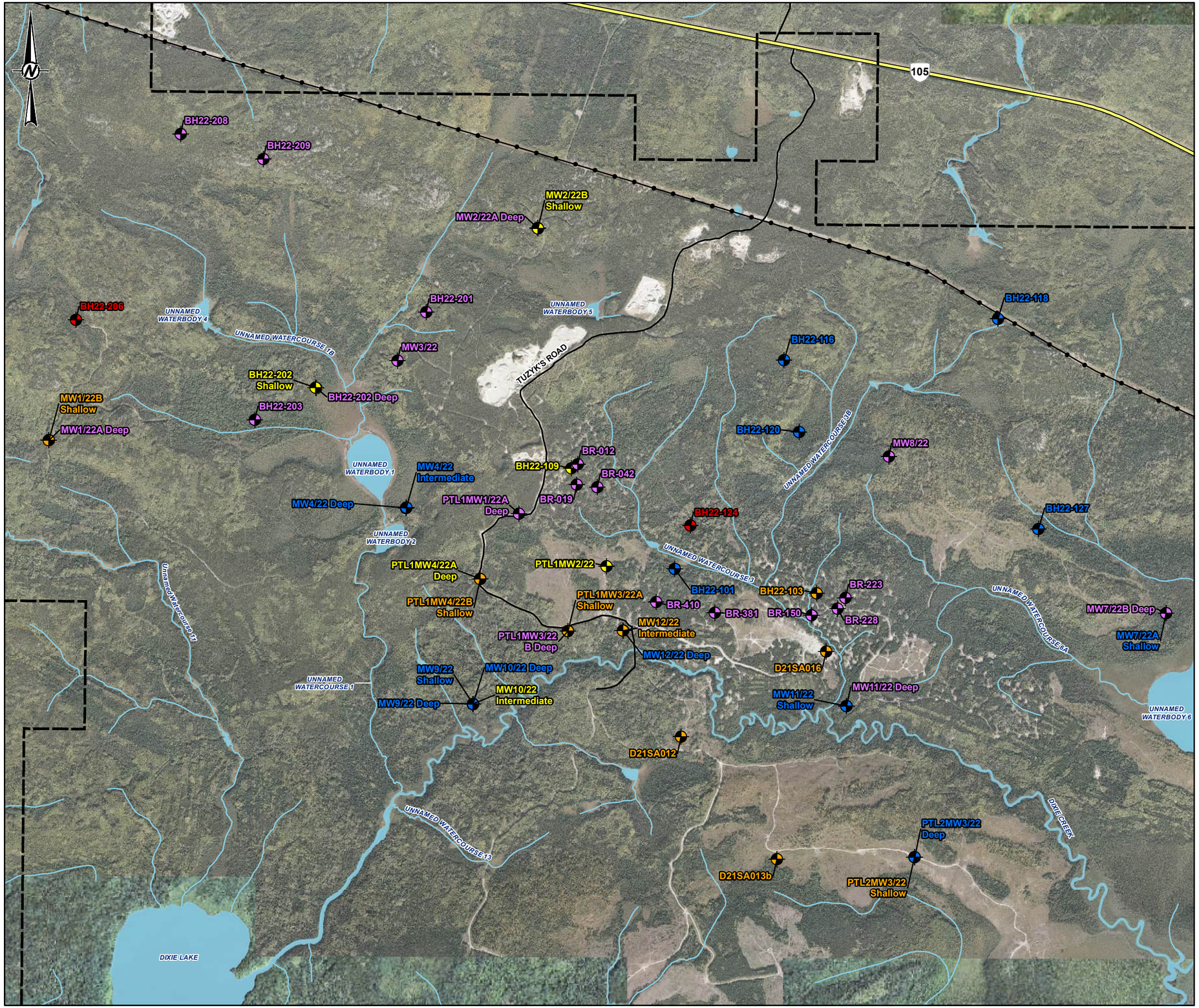

LEGEND

- PROPERTY BOUNDARY
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY

GROUNDWATER QUALITY MONIITORING STATION

STRATIGRAPHIC UNIT

- BEDROCK
- CLAY
- GLACIAL
- SAND
- SILT

0 0.25 0.5 1

1:28,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. AERIAL IMAGERY PROVIDED BY KINROSS (SCENE DATE: SEPTEMBER 2022).
3. PROPERTY BOUNDARY PROVIDED BY KINROSS, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY KINROSS, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
GROUNDWATER QUALITY MONITORING STATIONS, 2022-2023

CONSULTANT

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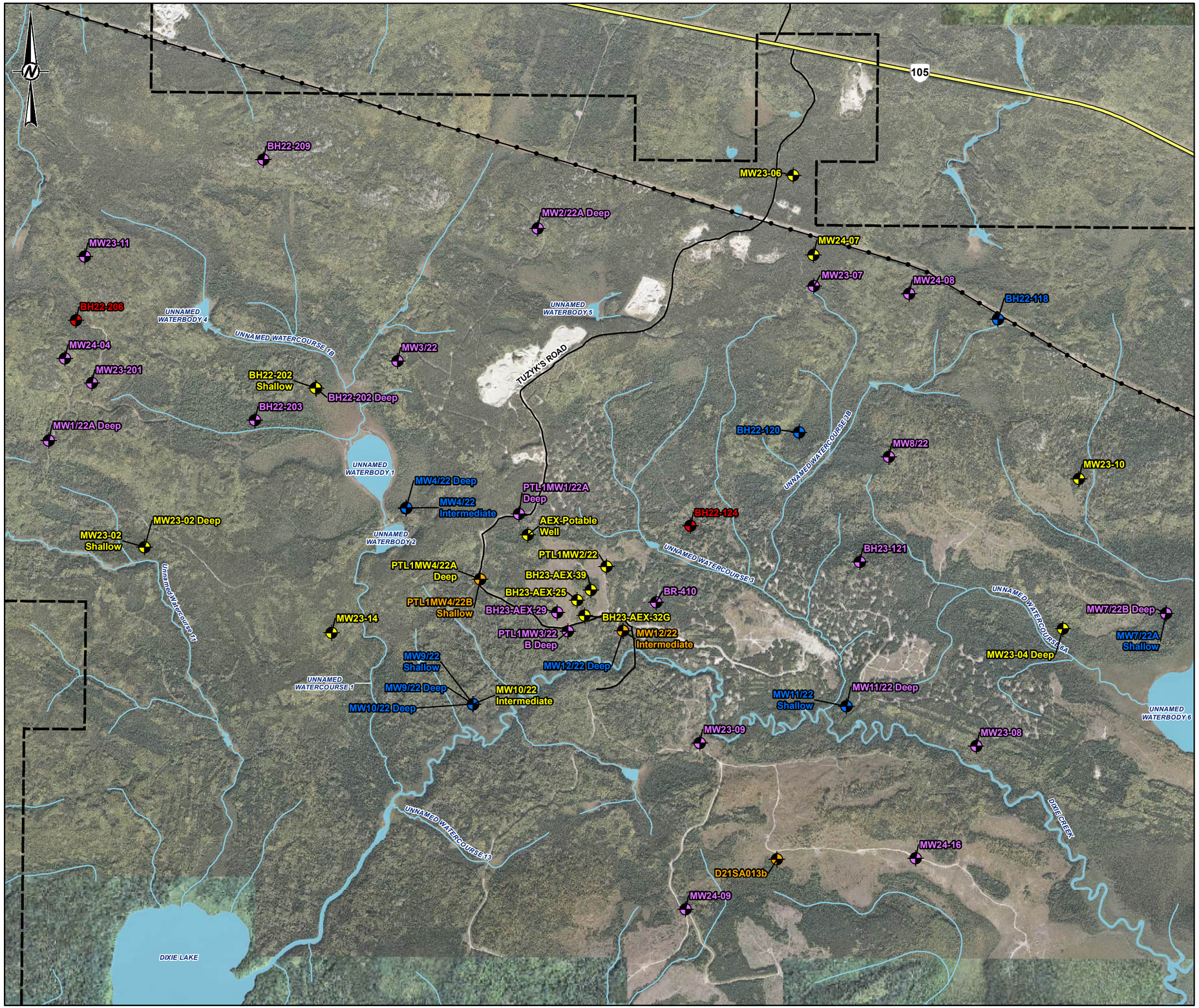

LEGEND

- PROPERTY BOUNDARY
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY

GROUNDWATER QUALITY MONIITORING STATION

STRATIGRAPHIC UNIT

- BEDROCK
- CLAY
- GLACIAL
- SAND
- SILT

0 0.25 0.5 1

1:28,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. AERIAL IMAGERY PROVIDED BY KINROSS (SCENE DATE: SEPTEMBER 2022).
3. PROPERTY BOUNDARY PROVIDED BY KINROSS, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY KINROSS, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
GROUNDWATER QUALITY MONITORING STATIONS, 2024

CONSULTANT

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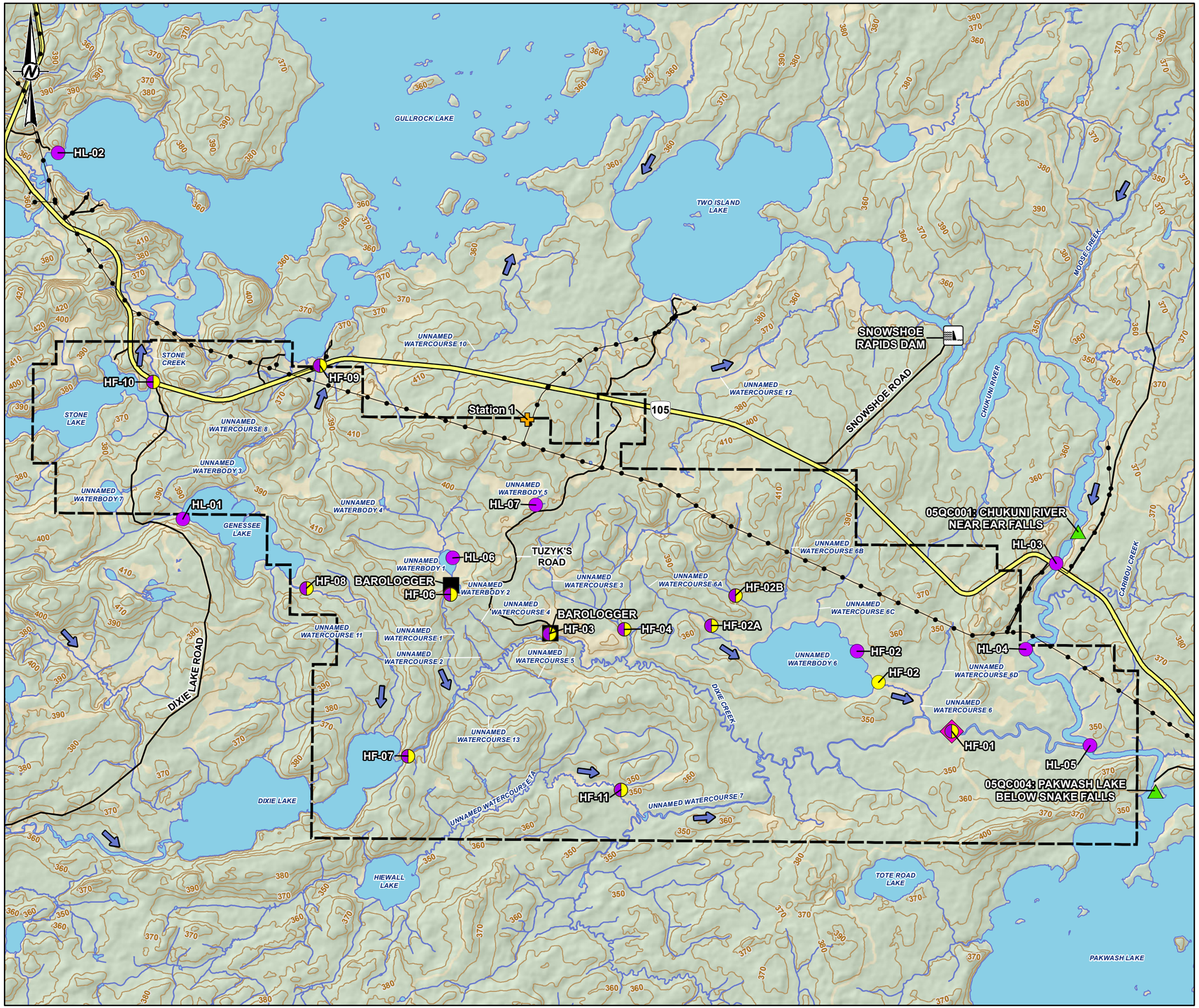

LEGEND

- PROPERTY BOUNDARY
- HIGHWAY
- LOCAL ROAD
- POWER LINE
- WATERCOURSE
- WATERBODY
- WATER SURVEY OF CANADA STATION
- METEOROLOGICAL STATION
- SNOWSHOE RAPIDS DAM
- FLOW DIRECTION

HYDROMETRIC STATION
(BY INSTRUMENTATION)

- BAROLOGGER
- LEVEL
- FLOW
- LEVEL AND FLOW
- SONTEK IQ

0 1 2 4
1:72,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. PROPERTY BOUNDARY PROVIDED BY KINROSS, AUGUST 2024.
3. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
METEOROLOGICAL AND HYDROMETRIC MONITORING STATIONS

CONSULTANT

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2 ENVIRONMENTAL SETTING

2.1 SURFACE WATER SETTING

Regional and local watershed areas and boundaries are presented in Figure 2-1 and Figure 2-2, respectively. Baseline hydrological monitoring (including water flow and water level monitoring) has occurred for key watercourses and waterbodies around the planned development (Figure 1-5).

The Property is located primarily within the drainage area of Dixie Creek and its tributaries (Figure 2-2). There are occasional beaver ponds located within the uppermost reaches of Dixie Creek, resulting in intermittent low flow periods in portions of its reach. A photographic log of key surface water features, taken during the June 2023 and September 2023 hydrology site visits, are provided in Appendix A. These photographs highlight the influence of beaver dams on surface water levels and show the ephemeral nature of several of the head water features of the smaller unnamed watercourses. Photographs also illustrate the general size and scale key surface water features that are present at the site.

Dixie Creek itself crosses the southern portion of the Property and flows into the Chukuni River to the east. The Chukuni River then flows into Pakwash Lake, which also receives inflows from the Troutlake River, Lac Seul and Cedar River (Figure 2-1).

There are several small watercourses within the Property boundary (Figure 2-2); the following represent the main tributaries to Dixie Creek in the area around the planned development:

- Unnamed Watercourse 1
- Unnamed Watercourse 2
- Unnamed Watercourse 3
- Unnamed Watercourse 4
- Unnamed Watercourse 6.

These are minor watercourses: the largest, Unnamed Watercourse 3, has an estimated catchment area of about 9.4 km², representing less than 5% of the Dixie Creek watershed.

Baseline water quality monitoring is also completed for four waterbodies within the Property boundary:

- Dixie Lake
- Genessee Lake
- Unnamed Waterbody 1
- Unnamed Waterbody 6.

Dixie Lake is a large, shallow lake that that is comprised of two distinct basins separated by narrows and is about 4.5 km long. The lake drains into Dixie Creek and has a watershed area of about 180 km^2, representing roughly 50% of the total Dixie Creek watershed. The Dixie Lake watershed includes several unnamed watercourses and Genessee Lake.

Genessee Lake has a surface area of approximately 1.81 km^2 and a surface water catchment area of 11.1 km^2 at the lake outlet. Genessee Lake has multiple basins and embayments. Its maximum depth is approximately 11 metres (m), with an average depth of 4 m. The eastern basin of Genessee Lake is approximately 10 m deep and bordered primarily by exposed bedrock and boulder shorelines with a mix of coniferous and deciduous forests. The western basin features more gradual, sloping shorelines with emergent grasses and shrubs, transitioning into a mixed forest of deciduous and coniferous trees.

Unnamed Waterbody 1 is a shallow system with extensive riparian habitat dominated by shrubs, grasses and sedges. Lake profile data collected during the fisheries resources baseline program recorded a maximum depth of 0.5 m.

Unnamed Waterbody 6 is a shallow waterbody that has wide riparian habitat comprised of grasses, sedges and shrubs along the northwest margin. The maximum recorded water depth was 1.78 m, with an average water depth of about 1.3 m throughout the waterbody. Unnamed Waterbody 6 ultimately outlets to Dixie Creek. The waterbody is characterized by a shallow water littoral zone in the east and west and a large uniform middle basin.

The Chukuni River is the proposed receiving environment for the Project. It is a large, regulated system with flow controlled by the Snowshoe Rapids Dam, constructed in 1927 to raise upstream water levels for transporting equipment and goods to support gold mining operations in the Red Lake area before the construction of Highway 105. Today, the Snowshoe Rapids Dam is operated with multiple objectives in mind, including flood protection, navigation, water supply and environmental considerations. Water levels and flows are managed according to a rule curve designed to balance these goals. The local catchment area of the Chukuni River, upstream of its confluence with Dixie Creek, covers approximately 4,400 km^2. The associated monthly average flows range from 51,900 m^3/hr to 197,120 m^3/hr at the proposed discharge location upstream of the Dixie Creek confluence, with March being the lowest flow month.

Baseline water quality monitoring is also completed for waterbodies outside of the Property boundary:

- Pakwash Lake
- Gullrock Lake
- Two Island Lake.

The confluence of the Chukuni River into Pakwash Lake is about 6 km downstream by river of the of the proposed discharge location on the Chukuni River. Pakwash Lake is a large lake, greater than 98 km^2, with a maximum measured depth of 17.4 m and average depth of about 6.8 m. Pakwash Lake has a watershed area of approximately 8,020 km^2 and receives flow from the Chukuni River, Trout Lake River, Lac Seul and Cedar River. The Chukuni River enters the shallow north basin of Pakwash Lake (less than 4 m deep), which transitions into a larger, deeper central basin. The south basin remains consistently deep (greater than 10 m) and discharges to the English River system via the Chukuni River. The outlet of Pakwash Lake is located approximately 26 km downstream of the proposed discharge point on the Chukuni River.

Gullrock Lake is north of the proposed Project footprint. Gullrock Lake has a surface area of approximately 62.8 km^2 with a watershed area of approximately 4,050 km^2 at the lake outlet. Its maximum depth is approximately 17.7 m and average depth of 7.8 m. Gullrock Lake drains to the Chukuni River via Two Island Lake, and water levels are controlled by Snowshoe Rapids Dam on the Chukuni River.

2.2 GROUNDWATER SETTING

The Project site is located in an unorganized township and is a part of the Kenora district in northwestern Ontario. The only nearby industrial developments to the Project Site are the active and inactive aggregate (sand and gravel) operations along Tuzyk's Road.

A search of available water well records from the MECP online Water Well Information System indicates that there are 12 monitoring or test wells, 7 existing or former water supply wells, and 3 wells of unknown use located within the 3 km buffer of the Property boundary. Additional information on groundwater users is provided in the hydrogeology baseline report.

The interaction between groundwater and surface water on the Property is largely dominated by the presence and distribution of glaciolacustrine materials, across which larger vertical gradients can form. The local area subsurface conditions can be simplified into four basic units:

- Sand deposits, which are expected to act as a conduit to groundwater flow (aquifer) and can be a notable recharge zone where it is exposed at surface.

- Glaciolacustrine clay and silt, which are typically present to the south of the site and consist primarily of silts and clays. The Dixie Creek and the middle to lower reaches of Unnamed Watercourse 3 is mapped as underlain by glaciolacustrine sediments, which is expected to act as an aquitard in the shallow subsurface flow system.
- Glacial till, consisting of mostly sand and gravel with some silt / clay and occasional cobble / boulders overlies the bedrock at site.
- Bedrock consists primarily of mafic to felsic volcanic rock intercalated with sedimentary (siltstone and, argillite) and various intrusive rocks.

Greater groundwater surface water interaction is expected in areas where creeks flow over sands, however, these are likely to be seasonal, with periods of higher discharge following cool, wet seasons, and limited flow during the summer. Limited groundwater surface water interaction is expected where surface water features, including wetlands, are underlain by glaciolacustrine silts and clays. This is supported by the locations of most area wetlands, which are in flat areas underlain by clay, reflecting wet, nutrient poor conditions resulting from poor drainage, not saturation due to groundwater inflows.

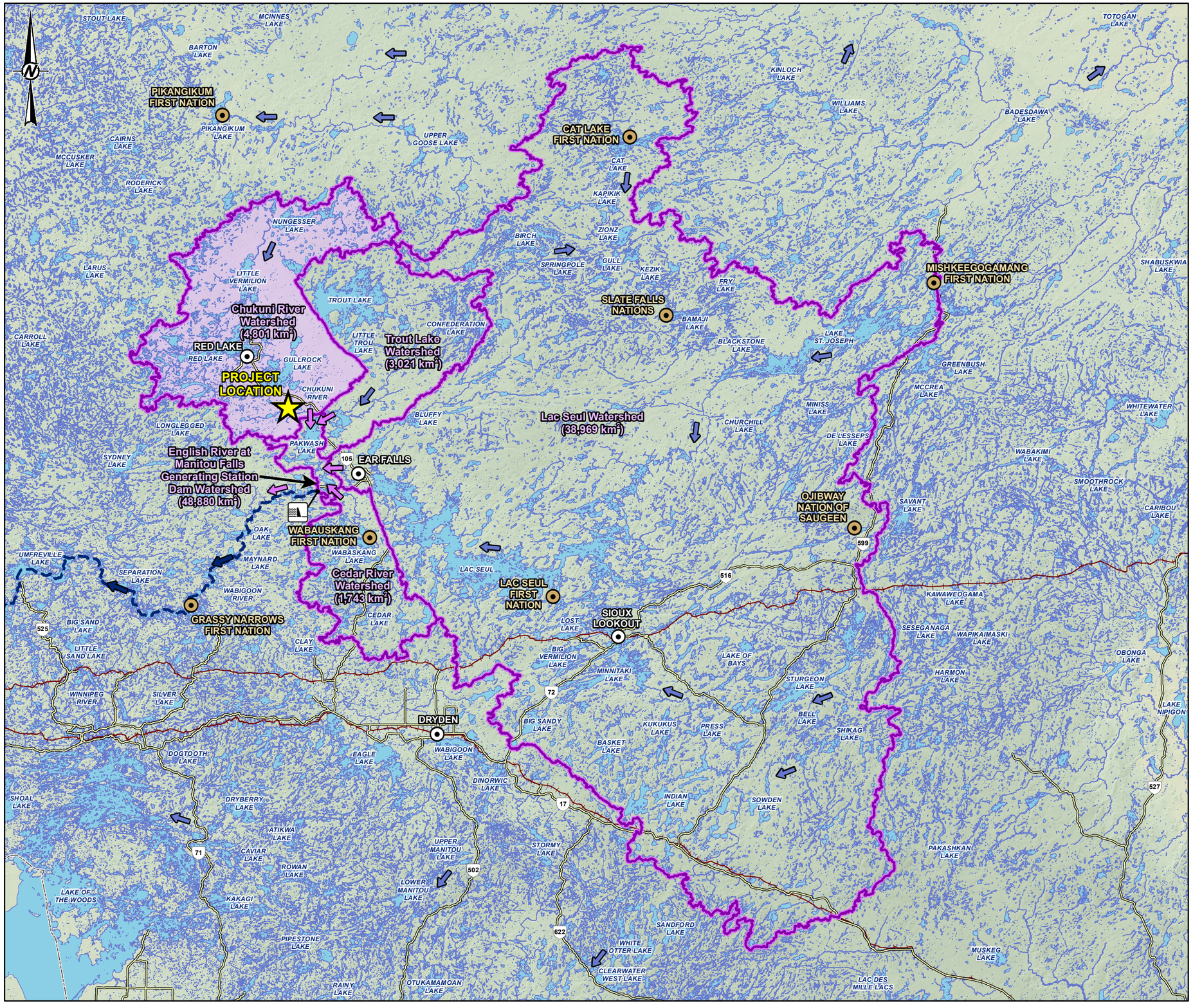
The presence of the low permeability surficial glaciolacustrine overburden sequence under Dixie Creek and several waterbodies (Unnamed Waterbody 6, Dixie Lake, and partially Genessee Lake) suggests that the bedrock groundwater system is most likely separated from surface water where the clays are present and therefore, that groundwater contributions from the bedrock to surface water features are likely minimal in these areas. This lack of interaction between the main aquifer and surface water would apply to all local minor creeks in low lying areas, such as Dixie Creek and Unnamed Waterbody 6, but does not include the portions of those tributaries further upstream underlain by sand or till units. This arrangement would suggest that many of the smaller tributaries originate from contact between the upper sands and clays. According to the measured water level data, the shallow groundwater flows from topographic high areas at the north of the site toward the downstream reaches of Dixie Creek.

2.3 EXISTING SITE CONDITIONS

The Property consists of mining lands (leases and claims) located in the unorganized townships of Faulkenham Lake, South of Byshe, Dixie Lake and Bruce Lake. At the time of preparation of this report, the Property is early exploration facilities and equipment present on the Property.

Historically, the first exploration work completed on the Property dates to 1944. A search of the Abandoned Mines Information System did not identify any mining hazards within the Property. At the time of preparation of this report, Great Bear Resources is currently preparing and has environmental applications in progress with provincial (Ontario) ministries to support an advance exploration program at the Property.

There have been no prior mining operations completed on the Property and no historical facilities or buildings within the Property. Some of the land within the Property boundary is occupied by historical and active gravel pits held by others. At a regional scale, the Property is within the Red Lake mining district in northwestern Ontario, which has a long history of gold exploration and mining production. There are historical and currently operating mines in the region and within the Chukuni River watershed, including the Red Lake Mine.



LEGEND

- PROJECT LOCATION
- FIRST NATION RESERVE
- TOWN
- MANITOU FALLS GENERATING STATION
- CHUKUNI RIVER WATERSHED
- OTHER WATERSHED
- APPROXIMATE FLOW DIRECTION OF THE ENGLISH RIVER SYSTEM
- HIGHWAY
- RAILWAY
- NATIONAL BOUNDARY
- WATERSHED OUTLET
- FLOW DIRECTION

0 12.5 25 50

1:1,400,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERSHEDS DELINEATED USING ONTARIO WATERSHED INFORMATION TOOL (MNRF).
3. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
REGIONAL WATERSHED AREAS

CONSULTANT
wsp

YYYY-MM-DD	2024-11-25
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031272	0001	A	2-1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 25mm

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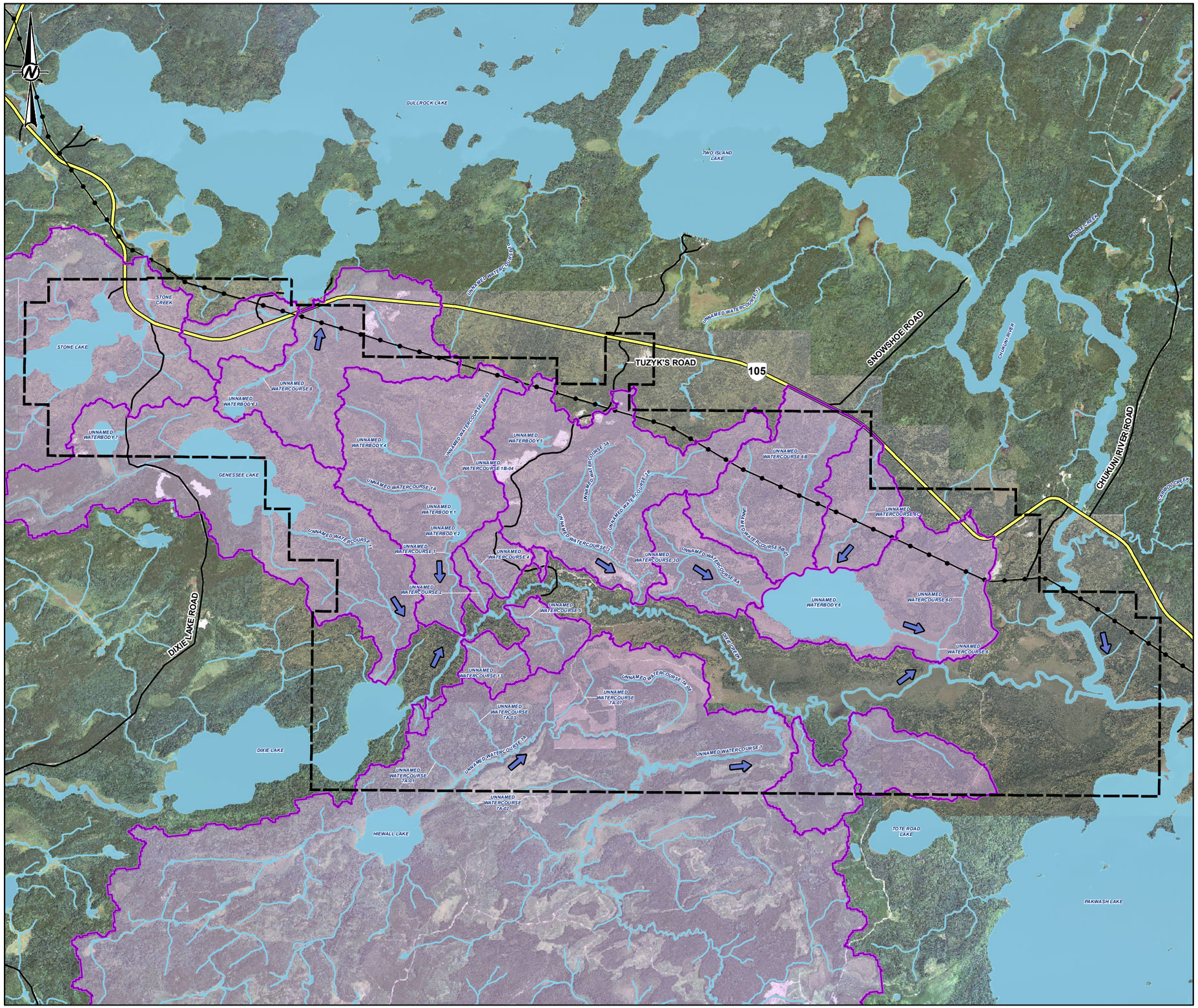
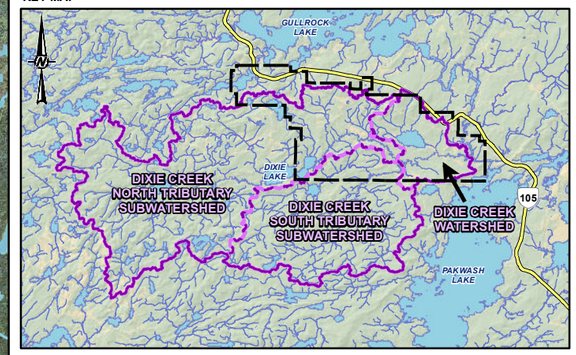


KEY MAP



SCALE 1:485,000

LEGEND

- PROPERTY BOUNDARY
- PROPERTY SUBCATCHMENT
- DIXIE CREEK SUBWATERSHED
- DIXIE CREEK WATERSHED
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY
- FLOW DIRECTION

0 1 2 4

1:70,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. AERIAL IMAGERY PROVIDED BY KINROSS (SCENE DATE: SEPTEMBER 2022).
3. PROPERTY BOUNDARY PROVIDED BY KINROSS, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY KINROSS, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
LOCAL WATERSHED AREAS

CONSULTANT

wsp

YYYY-MM-DD	2024-11-25
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031272	0001	A	2-2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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3 METHODOLOGY

3.1 MONITORING LOCATIONS

3.1.1 SURFACE WATER QUALITY

Figure 1-2 presents the baseline surface water quality monitoring network; a list of monitoring stations and rationale for the sampling is presented in Table 3-1. Baseline monitoring locations were selected to:

- Characterize waterbodies and watercourses potentially affected by future Project development. Early baseline programs targeted a broad geographic scope to address any uncertainty regarding the final mine plan and anticipated information requirements of future approvals; additional stations were added with finalization of the mine plan to support the effects assessment (Table 3-1).
- Characterize near and far-field waters of the proposed receiving environment (the Chukuni River)
- Characterize peripheral surface waters otherwise potentially affected by Project development
- Appropriately define reference sites
- Target supplemental ultra-low-level mercury and methylmercury monitoring at key reference and receiving environment locations.

Field photos of monitoring locations are provided in Appendix A.

As appropriate, surface water quality monitoring locations also coincide with sample locations of hydrology and fisheries resources baseline programs. This alignment provides for a comprehensive understanding of baseline surface water conditions of lakes, rivers and streams in the area around the planned development.

Since 2022, most surface water quality sampling has been conducted monthly during periods of flow and when sites were safely accessible, resulting in approximately 10 to 12 sampling events per station each year. Some unnamed watercourses were sampled only seasonally or quarterly due to limited site access and periods when flow was absent, or the channel was frozen to the bottom. The period of record (number of samples collected per year) for surface water quality monitoring is presented in Table 3-2.

3.1.2 GROUNDWATER QUALITY

Regular groundwater quality sampling was completed as part of hydrogeological field programs conducted by Great Bear Resources during 2022 and 2023 field programs and is ongoing at the time of this report preparation. Groundwater quality sampling in 2021 was conducted by previous owners of the property on an ad hoc basis. This sampling included the collection of groundwater from narrow diameter monitoring wells installed in 2021 by TBT Engineering in addition to existing exploration diamond drillholes. A summary of 2021 groundwater monitoring wells is presented in Table 3-3.

Groundwater sampling since 2022 has been conducted by Great Bear Resources. Figure 1-3 and Figure 1-4 present the baseline hydrogeological monitoring network from 2022 to 2023 and in 2024, respectively. The baseline groundwater quality period of record is presented in Table 3-4. Multi-level monitoring wells have been installed to assess overburden units and the shallow bedrock, as well as conditions in the deeper bedrock units.

In 2023, pumping and observation wells were installed at the Property during pumping tests. Well details are provided in Table 3-5 for the following wells:

- The Advanced Exploration Program (AEX) Pumping Well was drilled by Maple Leaf Drilling on December 14, 2023, and the well was installed on December 15, 2023.

- The AEX Observation Well was drilled on December 15, 2023, by Maple Leaf Drilling, and the well was installed on December 16, 2023.

The observation well was located 7.76 m from the pumping well (Figure 1-4).

3.2 MONITORED PARAMETERS

Monitored parameters were selected based on recent experience with regulatory requirements for other mine sites in Ontario and are presented in Table 3-6. Monitored parameters include:

- Parameters with Provincial Water Quality Objectives (PWQO) and interim PWQO (iPWQO) for the protection of aquatic life (e.g., metals, anions, and nutrients)
- Parameters prescribed by the Ontario Mine Closure Regulation 35/24)
- Important co-factors for water quality guideline calculations (e.g., dissolved organic carbon, hardness and alkalinity)
- Parameters required by hydro-geochemical or effects modelling to support the effects assessment for the Project (e.g., major cations and anions)
- Supplemental parameters likely seen as required by regulators and other stakeholders (methylmercury and ultra-low detection mercury).

For surface water quality sampling, analyses were done for both total and dissolved concentrations for applicable parameters, as is standard practice. For groundwater, analyses were completed for dissolved concentrations for applicable parameters, as is standard practice.

The laboratory analyses for monitored parameters have been conducted using industry-approved methods at accredited laboratories (Canadian Association for Laboratory Accreditation). Typical method detection limits for monitored parameters are provided in Table 3-6. For mercury analyses, it is important to clarify that while inductively coupled plasma mass spectrometry has been used for total metal scans, it has not been employed for mercury quantification since 2021, such that detection limits of ongoing analyses are appropriately sensitive for mercury. Starting in 2022, surface water mercury monitoring has included the following analyses:

- Methylmercury by Distillation, Aqueous Ethylation, Purge and Trap, and Cold Vapor Atomic Florescence Spectroscopy (CVAFS(at specialized laboratories with typical reported detection limits of approximately 0.0035 nanograms per litre (ng/L)
- Ultra-low mercury by Oxidation, Purge, and Trap, and CVAFS at specialized laboratories with typical reported detection limits of approximately 0.04 ng/L
- Standard mercury by Cold Vapor Atomic Absorption Spectroscopy (CVAAS) with typical reported detection limits of approximately 5 ng/L.

The analytical methods used, and the reported method detection limits are sufficiently sensitive to characterize the existing water quality conditions as part of this baseline study.

3.3 SAMPLING METHODOLOGY

3.3.1 SURFACE WATER

Surface water quality sampling was completed in accordance with industry standards and applicable provincial guidelines / standards. Shipment of water samples to accredited laboratories occurred under a Chain of Custody protocol.

Sampling and field quality assurance / quality control (QA / QC) were completed in accordance with industry standards and applicable standards and procedures as outlined in the Ministry of the Environment Conservation and Parks (MECP) manual, Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario (MECP 1996). Water quality sampling included the use of travel blanks, field blanks and duplicate analyses, as appropriate.

At each sampling location, field measurements were collected for water temperature, pH, conductivity, dissolved oxygen, turbidity and oxygen reduction potential. These measurements were taken using a Horiba U-22 or YSI multi-meter (or similar) prior to water sampling. Lake profile plots used temperature in degrees Celsius (°C) and dissolved oxygen concentration (mg/L) measurements against depth collected within the spring, summer and fall sampling investigations, as applicable. Before the measurement was taken, the instrument was rinsed with lake water to avoid potential cross contamination between sampling locations.

During sampling, bottles not requiring preservative were triple rinsed with lake water. Bottles requiring preservative were supplied pre-preserved by the laboratory. Samples requiring field filtering for dissolved metals were passed through a 0.45 micrometre (µm) inline filter into the appropriate bottle. The sample bottles were labelled with date, sample name, Project name and requested analysis. All samples were immediately stored in a cooler with ice packs to maintain a temperature of about 4°C and shipped to accredited laboratory facilities. Accredited laboratories follow internal QA / QC procedures to verify and validate analytical results, including analysis of internal laboratory duplicates, reference standards, matrix spikes and blanks.

Supplemental baseline sampling and for ultra-low-level mercury and methylmercury commenced in 2022. For ultra-low-level and methylmercury analyses, samples were packed into a cooler and shipped to Flett Research in Winnipeg, Manitoba for specialized laboratory analysis.

These sampling for metals as well as ultra-low-level mercury analyses occurred via the EPA Method 1631e *and* EPA Method 1669: Clean Hands / Dirty Hands Sampling Protocol, 1996, 2002 to reduce the potential for contamination.

As is industry standard practice, for each monthly sampling event, one blind field duplicate, one trip blank and one field blank were used as QA / QC checks. Similarly, as part of the QA / QC protocol used, a laboratory supplied field blank and travel blank were included for each surface water sampling event. As is standard best practice, these blanks were used to monitor the potential contamination of samples due to field practices, laboratory equipment, analytical methodology, and / or sample containers, etc. Field and travel blanks were provided by the accredited laboratory in sample bottles for each sampling event. Field and travel blanks consist of deionized water that were tested by the laboratory for purity and transferred into laboratory supplied containers. Laboratory datasheets and results of QA / QA analyses are provided in Appendix B.

For deep-basin lake monitoring stations, water quality samples are collected seasonally at surface and at depth. This includes Dixie Lake, Genessee Lake, Unnamed Waterbody 6, Gullrock Lake and Pakwash Lake.

3.3.2 GROUNDWATER

Baseline groundwater sampling was compliant with industry standards and in accordance with protocols established by the MECP (1996). Main components of the groundwater sampling methods were:

- Total depth and depth to water level was measured using a calibrated water level meter at each monitoring location.
- During well purging, measurements of field parameters (pH, temperature, conductivity and alkalinity) were made, and purging continued until the field parameters stabilized to within ±10% of the last measurement. If the monitoring well went dry prior to sampling, the well was allowed to recover and then purged a second time with samples collected following the second recovery.
- Collections of groundwater sample were performed following the purging of each well. Field measurements of the final samples included temperature, pH, conductivity and alkalinity.
- All samples for groundwater quality analyses were collected directly into the laboratory supplied containers; only samples for metals analysis were field filtered.

Shipment of groundwater samples to accredited laboratories occurred under a Chain of Custody protocol.

Sampling and field QA / QC were completed in accordance with industry standards and applicable standards and procedures as outlined in Soil, ground water and sediment standards for use under Part XV.1 of the *Environmental Protection Act.* Water quality sampling included the use of travel blanks, field blanks, and duplicate analyses, as appropriate. Laboratory datasheets and results of QA / QA analyses are provided in Appendix B.

Groundwater sampling was conducted during 2021 by previous owners of the property on an ad hoc basis. This sampling included the collection of groundwater from narrow diameter monitoring wells installed in 2021 by TBT Engineering as well as existing exploration diamond drillholes.

3.4 DATA ANALYSIS

Data analyses for surface and groundwater quality results included basic descriptive and summary statistics; replicate samples (duplicates) were averaged before inclusion in descriptive statistics.

Analytical results below the reported the method detection limit were retained in the water quality database and included in the statistical summaries presented in this report. This approach is consistent with established guidance on environmental data handling (Environment and Climate Change Canada Metal Mining Technical Guidance 2014; EPA 1990; EPA 1991), reflects industry standards and regulator expectations, and is appropriate to support baseline database creation. Adhering to standard data handling practices herein supports comparisons to regulatory standards and facilitates consistency in data interpretation and reporting across different studies, different points in the Project life cycle, and between the provincial and federal regulatory approvals processes relevant to the Project. Following a standardized approach to handling non-detect values enhances the transparency and reproducibility of analyses presented. A summary of typical method detection limits for this baseline program is provided in Table 3-6; corresponding laboratory datasheets showing detection limits throughout program are provided in Appendix B. Note, in 2022, a sulphate detection limit of 20 mg/L was observed for some samples, which is higher than the subsequent detection limits in the 2023 and 2024 baseline sampling programs. Monitoring data from 2023 and 2024 show that sulphate concentrations in the Chukuni River are consistently well below 10 mg/L (i.e., less than 50% of the 2022 detection limit). As a result, the 35 sulphate data points from 2022 were not included in the summary statistics presented in this report, to maintain consistency with the more recent and representative dataset.

Analytical results were compared to Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL; Table 3-7). WQG PAL are numerical criteria that have been developed by the provincial and federal government to establish a measurable level of water quality that is protective of all aquatic life, for all life cycle stages, for periods of indefinite exposure. The WQG PAL identified for use as benchmarks in Table 3-7 represent best-available PWQO, iPWQO, Canadian Water Quality Guidelines (CWQG) or Federal Environmental Quality Guidelines (FEQG) for the protection of aquatic life. That is, identified WQG PAL represent the most up-to-date and / or scientifically defensible guideline within the Ontario or federal jurisdiction, in WSP's most recent experience, and as per recent guidance from the MECP on similar Projects.

Both surface water and groundwater quality results are compared to WQG PAL in this report. Groundwater exists in the subsurface, however, where environmental conditions differ noteably from those of surface water, resulting in distinct water quality profiles. Natural, undisturbed groundwater often exhibits concentrations greater than surface waters and WQG PAL. WQG PAL are not applicable to groundwater and are used here to support conservative comparisons relative to surface water quality results. For example, drinking water quality guidelines that may be seen as applicable to groundwater quality wells are generally less stringent than WQG PAL.

Table 3-1: Baseline Surface Water Quality Program

Waterbody	Station	Rationale	Frequency [1]	Parameters [2]	NAD 1983 UTM Zone 15N	
					Easting	Northing
Chukuni River	CR-REF	Upstream reference site for proposed Project discharge, downstream of the Snowshoe Dam, upstream of station CR-FDP, upstream of Highway 105.	Monthly	Standard suite LL-mercury	466335	5637620
	CR-FDP	Approximate planned discharge location, downstream of Highway 105.	Monthly	Standard suite LL-mercury	465232	5633877
	CR-DS	Downstream of all Project influences, about 4 km downstream of proposed discharge location.	Monthly	Standard suite LL-mercury	466761	5631703
Dixie Lake and Dixie Creek	DL-Ref	On Dixie Lake, upstream of potential Project effects. During stratified conditions, samples collected at 0.5 m from surface and 0.5 m from bottom.	Quarterly	Standard suite LL-mercury	449100	5630192
	DC-US	At outlet of Dixie Lake to Dixie Creek.	Monthly	Standard suite	453394	5361681
	SW-03	Downgradient of the proposed Project footprint, represents near-field monitoring on Dixie Creek.	Monthly	Standard suite LL-mercury	455187	5633666
	SW-04	Downgradient of the proposed Project footprint, represents near-field monitoring on Dixie Creek.	Monthly	Standard suite LL-mercury	455994	5633961
	SW-08	Downgradient of the proposed Project footprint, represents near-field monitoring on Dixie Creek.	Monthly	Standard suite LL-Mercury	457437	5633358
	SW-09	Mid-field station, downstream of Project influences on Dixie Creek, upstream of outflows from Unnamed Waterbody 6.	Monthly	Standard suite LL-mercury	458991	5632674
	SW-15	Far-field, downstream of outflow from Unnamed Waterbody 6, upstream of confluence with the Chukuni River.	Monthly	Standard suite	463490	5632118
Unnamed Waterbody 6	SW-14	East of Project footprint, upstream of Dixie Creek. During stratified conditions, samples collected at 0.5 m from surface and 0.5 m from bottom.	Quarterly	Standard suite LL-Mercury Lake profile [3]	460885	5633461
Genessee Lake	SW-GL	Largely outside of the Property boundary, southwest of the of the Project footprint. During stratified conditions, samples are collected at 0.5 m from surface and 0.5 m from bottom. Increased frequency in 2023 relative to other lake sites due to current lack of baseline data.	Monthly	Standard suite LL-Mercury Lake profile [3]	450067	5636010
Gullrock Lake	SW-GL02	Unnamed watercourse, flowing north into Gullrock Lake, upstream of Highway 105. It is understood that station accessibility has been an issue the location of this station may be further refined/ field fit to support regular monitoring.	Monthly	Standard suite LL-mercury	451625	5638688
	GRL-01	New sites established in late 2024 in response to feedback received during consultation. These sites are downstream of potential effects of historical mining activities at Red Lake and upstream of proposed discharge to the Chukuni River. These stations are outside of the Property boundary, beyond the Dixie Creek watershed boundary.	Quarterly	Standard suite LL-mercury	457299	5641178
	GRL-02		Quarterly	Standard suite LL-mercury	453072	5641149
	GRL-03		Quarterly	Standard suite LL-mercury	451206	5645803
Waterbody 1	SW-01	Very shallow waterbody within the footprint of the Project.	Monthly	Standard suite LL-mercury	454186	5634868
Tuzyk's Road station	SW-TR	Station near Tuzyk's Road, potentially affected by gravel pit operations, owned by others.	Monthly	Standard suite LL-mercury	455738	5636414
Unnamed watercourses, including tributaries to Dixie Creek, Unnamed Waterbody 6, and north flowing tributaries	SW-08a	Tributary of Dixie Creek, downstream of proposed Project footprint. .	Monthly	Standard suite LL-mercury	457386	5633494
	SW-10	Unnamed watercourse 7, upstream of the confluence with Dixie Creek.	Quarterly	Standard suite LL-mercury	459865	5631568
	SW-11	Potential effects from Project development.	Monthly	Standard suite	458465	5634259
	SW-12b	Potential effects from Project development.	Quarterly	Standard suite	460166	5634244
	SW-17	North flowing tributary ultimate draining to Chukuni River, upstream of CR-REF.	Quarterly	Standard suite LL-mercury	458915	5637971
	SW-18	North flowing tributary, proximate to the tailings storage facility. Note, sampling to date has indicated that this tributary routinely has little to no flow; ongoing sampling will include photo records to document flow conditions in the event water quality sampling cannot be completed.	Quarterly	Standard suite LL-mercury	454375	5638874
Pakwash Lake	PL-01	Regional monitoring station established in 2023. PL-01 is in Pakwash Lake at the inlet of the Chukuni River and is about 6 km downstream of Project discharge. During stratified conditions, samples are collected at 0.5 m from surface and 0.5 m from bottom.	Quarterly	Standard suite LL-mercury Lake profile [3]	467223	5630967
	PL-02	Regional monitoring station established in 2023. During stratified conditions, samples are collected at 0.5 m from surface and 0.5 m from bottom.	Quarterly	Standard suite LL-mercury Lake profile [3]	469581	5629568
	PL-03	Regional monitoring station established in 2023. During stratified conditions, samples to be collected at 0.5 m from surface and 0.5 m from bottom.	Quarterly	Standard suite LL-mercury Lake profile [3]	465860	5627069
	PL-04	Regional monitoring station established in 2023. During stratified conditions, samples to be collected at 0.5 m from surface and 0.5 m from bottom.	Quarterly	Standard suite LL-mercury Lake profile [3]	465035	5621967
	PL-05	Regional monitoring station established in 2023. During stratified conditions, samples to be collected at 0.5 m from surface and 0.5 m from bottom.	Quarterly	Standard suite LL-mercury Lake profile [3]	463465	5614820

Notes:
1 Targeted sampling frequency. Actual sampling occurs when flow is present, and locations can be safely accessed. Unnamed watercourses are frequently observed to freeze to bottom and/or are inaccessible in winter months such that less samples may be collected. Reported frequency here also represents ongoing sampling efforts in 2025.
2 Supplemental low-level mercury analyses (LL Mercury) include methylmercury analyses and occurs at a subset of key monitoring locations.
3 Where appropriate, lake profile sampling completed quarterly at roughly 1 m intervals (YSI)

Table 3-2: Baseline Surface Water Quality, Period of Record

Waterbody	Station	Number of Samples Per Year					Station Total	Waterbody Total
		2020	2021	2022	2023	2024		
Chukuni River	CR-REF	-	6	10	12	13	41	99
	CR-FDP	-	-	7	12	10	29	
	CR-DS	-	4	6	12	7	29	
Dixie Creek	SW-03	2	-	7	8	10	27	149
	SW-04	3	3	7	12	11	36	
	SW-08	2	1	8	11	13	35	
	SW-09	2	1	5	6	8	22	
	SW-15	3	5	8	9	4	29	
Dixie Creek Tributaries	SW-02	2	-	7	1	-	10	59
	SW-05	2	-	-	-	-	2	
	SW-06	2	-	-	-	1	3	
	SW-07	2	-	-	-	1	3	
	SW-08a	-	3	7	8	8	26	
	SW-10	2	1	5	4	3	15	
Unnamed North-flowing Watercourses	SW-GL02	-	-	6	5	9	20	66
	SW-17	-	1	3	1	7	12	
	SW-18	-	-	-	1	2	3	
	SW-TR	-	-	6	12	13	31	
Unnamed Waterbody 6 and Genessee Lake Tributaries	SW-11	2	-	7	9	8	26	54
	SW-12	2	1	2	-	-	5	
	SW-12b	-	-	-	3	5	8	
	SW-13	2	1	2	-	-	5	
	SW-16	-	1	2	1	-	4	
	GL-Trib	-	-	-	3	3	6	
Project Area Waterbodies	DL-Ref	-	-	-	3	4	7	138
	DC-US	-	5	8	5	4	22	
	SW-GL	-	-	5	10	15	30	
	SW-GL-B	-	-	-	6	10	16	
	SW-01	2	2	9	10	12	35	
	SW-14	2	3	7	6	4	21	
	SW-14-B	-	-	-	3	4	7	
Gullrock Lake	GRL-01	-	-	-	-	1	1	6
	GRL-01-B	-	-	-	-	1	1	
	GRL-02	-	-	-	-	1	1	
	GRL-02-B	-	-	-	-	1	1	
	GRL-03	-	-	-	-	1	1	
	GRL-03-B	-	-	-	-	1	1	
Pakwash Lake	PL-01	-	-	-	3	5	8	51
	PL-01-B	-	-	-	-	3	3	
	PL-02	-	-	-	3	5	8	
	PL-02-B	-	-	-	-	3	3	
	PL-03	-	-	-	3	5	8	
	PL-03-B	-	-	-	-	3	3	
	PL-04	-	-	-	3	4	7	
	PL-04-B	-	-	-	-	2	2	
	PL-05	-	-	-	3	4	7	
	PL-05-B	-	-	-	-	2	2	

Table 3-3: 2021 Groundwater Sampling Locations

Well or D ID	Easting	Northing	Depth or length of well / (m)	Dates of sampling events	Type
D21SA006	457669	5633169	2.65	Not sampled	Overburden Monitoring Well (1)
D21SA012	456375	5633308	5.33	30-Nov-2021	
D21SA013b	457070	5632420	2.62	30-Nov-2021	
D21SA016	457428	5633929	1.66	30-Nov-2021	
BR-012	455625	5635288	411	21-Aug-2021, 29-Nov-2021	Exploration Diamond Drillhole
BR-019	455617	5635138	306	21-Aug-2021, 29-Nov-2021	
BR-042	455768	5635122	224.8	20-Dec-2021	
BR-150	457323	5634192	208.9	27-Nov-2021	
BR-223	457569	5634319	205.44	27-Nov-2021	
BR-228	457511	5634240	206.44	27-Nov-2021	
BR-381	456620	5634209	213.48	29-Nov-2021	
BR-410	456193	5634288	34.5	29-Nov-2021	

Notes:

1 Reported to be constructed by placing narrow (0.75”) diameter pvc pipe with prepack five feet screen intervals inside 2” diameter (either steel pipe D21SA006 and D21SA012 or pvc for D21SA013b and D21SA016), with additional sand then bentonite seals placed above the screen intervals, prior to removal of 2” pipe.

Table 3-4: Baseline Groundwater Quality, Period of Record

Well ID	Easting[(1)]	Northing[(1)]	Completion Unit	Number of Samples per Year				Total
				2021	2022	2023	2024	
BH22-101	456328	5634528	Sand and Gravel Till	-	-	2	-	2
BH22-103	457361	5634352	Silty Clay	-	-	2	-	2
BH22-109	455578	5635257	Silty Sand	-	-	3	-	3
BH22-116	457122	5636042	Sand and Gravel Till	-	-	3	-	3
BH22-118	458677	5636343	Sand Till	-	-	3	3	6
BH22-120	457232	5635521	Clayey Silt / Sand and Gravel Till	-	-	3	3	6
BH22-124	456443	5634842	Clayey Silt	-	-	3	2	5
BH22-127	458971	5634818	Sand and Gravel Till	-	-	2	-	2
BH22-201	454524	5636391	Bedrock			1	-	1
BH22-202 Deep	453726	5635841	Bedrock	-	-	2	1	3
BH22-202 Shallow	453720	5635843	Silty Sand	-	-	3	1	4
BH22-203	453281	5635612	Bedrock	-	-	3	1	4
BH22-206	451982	5636337	Silt	-	-	2	3	5
BH22-208	452741	5637685	Bedrock	-	-	2	-	2
BH22-209	453341	5637503	Bedrock	-	-	2	3	5
BR-012	455625	5635288	Bedrock	2	-	-	-	2
BR-019	455617	5635138	Bedrock	2	-	-	-	2
BR-042	455768	5635122	Bedrock	1	-	-	-	1
BR-150	457323	5634192	Bedrock	1	-	-	-	1
BR-223	457569	5634319	Bedrock	1	-	-	-	1
BR-228	457511	5634240	Bedrock	1	-	-	-	1
BR-381	456620	5634209	Bedrock	1	-	-	-	1
BR-410	456193	5634288	Bedrock	1	-	-	-	1
D21SA012	456375	5633308	Silty Clay	1	-	3	-	4
D21SA013b	457070	563242	Silty Clay	1	-	-	-	1
D21SA016	457428	5633929	Silty Clay	1	-	-	-	1
MW1/22A Deep	451785	5635461	Bedrock	-	-	3	3	6
MW1/22B Shallow	451783	5635462	Silty Clay	-	-	3	-	3
MW10/22 Intermediate	454863	5633549	Silty Sand	-	-	3	2	5
MW10/22 Deep	454864	5633549	Sand and Gravel Till	-	-	3	3	6
MW11/22 Deep	457576	5633532	Bedrock	-	-	3	3	6
MW11/22 Shallow	457575	5633532	Clayey Silt / Sand and Gravel Till	-	-	3	3	6
MW12/22 Deep	455954	5634079	Sand and Gravel Till	-	-	3	3	6
MW12/22 Intermediate	455953	5634079	Silty Clay	-	-	3	3	6
MW2/22A Deep	455333	5637003	Bedrock	-	-	3	3	6
MW2/22B Shallow	455335	5637001	Sand	-	-	3	-	3
MW3/22	454316	5636040	Bedrock	-	-	3	3	6
MW4/22 Deep	454377	5634970	Sand and Gravel Till	-	-	2	3	5
MW4/22 Intermediate	454381	5634973	Sand and Gravel Till	-	-	4	3	7
MW7/22A Shallow	459897	5634208	Sand and Gravel Till	-	-	2	3	5
MW7/22B Deep	459896	5634208	Bedrock	-	-	2	3	5
MW8/22	457883	5635344	Bedrock	-	-	2	3	5
MW9/22 Deep	454864	5633549	Sand and Gravel Till	-	-	3	3	6

Well ID	Easting[1]	Northing[1]	Completion Unit	Number of Samples per Year				Total
				2021	2022	2023	2024	
MW9/22 Shallow	454864	5633549	Sand and Gravel Till	-	-	3	2	5
PTL1MW1/22A Deep	455199	5634930	Bedrock	-	1	3	3	7
PTL1MW2/22	455833	5634548	Silty Sand	-	1	3	3	7
PTL1MW3/22A Shallow	455553	5634077	Silty Clay	-	1	-	-	1
PTL1MW3/22 B Deep	455554	5634076	Bedrock	-	1	3	3	7
PTL1MW4/22A Deep	454916	5634456	Silty Sand	-	-	1	3	4
PTL1MW4/22B Shallow	454916	5634455	Silty Clay / Clayey Silt	-	-	2	-	2
PTL2MW3/22 Deep	458071	5632433	Silty Sand / Sand and Gravel Till	-	-	1	-	1
PTL2MW3/22 Shallow	458069	5632433	Silty Clay / Clayey Silt	-	-	1	-	1
AEX-Potable Well	455262	5634776	Sand	-	-	-	2	2
BH23-121	457672	5634581	Bedrock	-	-	-	2	2
BH23-AEX-25	455621	5634302	Sand	-	-	-	3	3
BH23-AEX-29	455475	5634213	Bedrock	-	-	-	3	3
BH23-AEX-32G	455674	5634191	Sand	-	-	-	3	3
BH23-AEX-39	455720	5634378	Sand	-	-	-	3	3
MW23-02 Deep	452479	5634688	Gravelly Silty Sand	-	-	-	2	2
MW23-02 Shallow	452478	5634688	Silty Sand	-	-	-	2	2
MW23-04 Deep	459148	5634093	Sandy Gravel to Silty Sand	-	-	-	3	3
MW23-06	457190	5637389	Sand to Sand and Gravel	-	-	-	3	3
MW23-07	457339	5636583	Bedrock	-	-	-	3	3
MW23-08	458520	5633245	Bedrock	-	-	-	2	2
MW23-09	456511	5633267	Bedrock	-	-	-	3	3
MW23-10	459263	5635185	Sand and Silt	-	-	-	3	3
MW23-11	452046	5636800	Bedrock	-	-	-	3	3
MW23-14	453838	5634066	Silty Sand	-	-	-	2	2
MW23-201	452096	5635880	Bedrock	-	-	-	1	1
MW24-04	451901	5636060	Bedrock	-	-	-	1	1
MW24-07	457337	5636811	Silty Sand	-	-	-	1	1
MW24-08	458032	5636530	Bedrock	-	-	-	1	1
MW24-09	456408	5632060	Bedrock	-	-	-	1	1
MW24-16	458078	5632430	Bedrock	-	-	-	1	1
			Grand Total	**13**	**4**	**104**	**123**	**244**

Notes:
1 NAD 1983 UTM ZONE 15N.
- indicates no data available.

Table 3-5: Advanced Exploration Program, 2023 Well Details

Well	Location		Hole Depth (m bgs)	Diameter (m)	Screen Depth (m bgs)	Screen Length (m)	Distance from Pumping Well (m)
	Northing	Easting					
AEX-Pumping Well	5634791	455227	20.4	0.15	17.69	6.1 m	-
AEX-Observation Well	5634785	455222	14.328	0.051	14.33	3.05 m	7.76

Note:
- indicates no data available.

Table 3-6: Typical Method Detection Limits

Lab Parameters [2]	Units	MDL [1]	Field Parameters [2]	Units	MDL [1]
General Parameters			Conductivity	µS/cm	1.0
Acidity (as $CaCO_3$)	mg/L	2.0	Field pH	s.u.	0.01
Alkalinity, Total (as $CaCO_3$)	mg/L	1	Temperature	°C	0.1
Hardness (as $CaCO_3$)	mg/L	0.20	Dissolved Oxygen	mg/L	0.1
Total Suspended Solids	mg/L	1.0 to 3.0	Notes:		
Total Dissolved Solids	mg/L	13	1 MDL: method detection limit 2 Groundwater quality analyses was performed for dissolved concentrations, as is standard practice. Field parameters for groundwater include pH and conductivity.		
Nutrients and Anions					
Ammonia, Total (as N)	mg/L	0.010			
Chloride	mg/L	0.10			
Unionized ammonia (as N)	mg/L	0.001			
Nitrate (as N)	mg/L	0.020			
Nitrite (as N)	mg/L	0.010			
Phosphorus, Total	mg/L	0.0020 to 0.0050			
Sulphate (SO_4)	mg/L	0.30 to 1.0			
Dissolved organic carbon	mg/L	0.5			
Total cyanide	mg/L	0.0005			
WAD Cyanide	mg/L	0.0005			
Total and Dissolved Metals					
Aluminum	mg/L	0.0010			
Antimony	mg/L	0.00010			
Arsenic	mg/L	0.0001			
Beryllium	mg/L	0.00010			
Barium	mg/L	0.00010			
Boron	mg/L	0.010			
Cadmium	mg/L	0.0000050			
Calcium	mg/L	0.050			
Chromium	mg/L	0.00010			
Cobalt	mg/L	0.00010			
Copper	mg/L	0.0001 to 0.00020			
Iron	mg/L	0.010			
Lead	mg/L	0.000050			
Magnesium	mg/L	0.0050			
Manganese	mg/L	0.00010			
Mercury, Standard	mg/L	0.000005			
Mercury, Low-Level	ng/L	0.04			
Methylmercury	ng/L	0.0035			
Molybdenum	mg/L	0.000050			
Nickel	mg/L	0.00050			
Potassium	mg/L	0.050			
Selenium	mg/L	0.0005			
Silver	mg/L	0.000010			
Sodium	mg/L	0.050			
Thallium	mg/L	0.000010			
Tungsten	mg/L	0.00010			
Uranium	mg/L	0.000010			
Vanadium	mg/L	0.00050			
Zinc	mg/L	0.0010			
Zirconium	mg/L	0.00020			

Table 3-7: Water Quality Guidelines

Parameter	Unit	Guideline Value	Source [1,2,3,4]
pH	s.u.	6.5 – 8.5	PWQO
Sulphate	mg/L	218	BC WQG
Ammonia (as N)	mg/L	1.8	CCME
Chloride	mg/L	120	CCME
Nitrate (as N)	mg/L	3	CCME
Nitrite (as N)	mg/L	0.06	CCME
Cyanide	mg/L	0.005	PWQO
Aluminum	mg/L	*Calculated*	FEQG
Antimony	mg/L	0.02	iPWQO
Arsenic [5]	mg/L	0.005	iPWQO
Boron	mg/L	1.5	CCME
Beryllium	mg/L	*Calculated*	PWQO
Cadmium	mg/L	*Calculated*	iPWQO
Chromium [6]	mg/L	0.0089	iPWQO
Cobalt	mg/L	*Calculated*	FEQG
Copper	mg/L	0.005	iPWQO
Iron	mg/L	*Calculated*	FEQG
Lead	mg/L	*Calculated*	iPWQO
Mercury	mg/L	0.000026	CCME
Methylmercury	ng/L	4	CCME
Molybdenum	mg/L	0.073	CCME
Nickel	mg/L	0.025	PWQO
Phosphorus	mg/L	0.03 (rivers); 0.02 (lakes)	iPWQO
Selenium	mg/L	0.001	CCME
Strontium	mg/L	2.5	FEQG
Silver	mg/L	0.0001	PWQO
Thallium	mg/L	0.0003	iPWQO
Uranium	mg/L	0.005	iPWQO
Vanadium	mg/L	0.12	FEQG
Tungsten	mg/L	0.03	iPWQO
Zinc	mg/L	0.02	iPWQO
Zirconium	mg/L	0.004	iPWQO

Notes:

1 Provincial Water Quality Objectives (PWQO) and interim PWQO (iPWQO).

2 CCME: Canadian Council of Ministers of the Environment (CCME) water quality guidelines for the protection of aquatic life (long-term exposure).

3 FEQG: Federal Environmental Quality Guidelines; these are issued to support federal environmental quality monitoring and risk assessment for parameters for which CCME guidelines do not yet exist or are not reasonably expected to be updated in the near future.

4 BC WQG: British Columbia long-term exposure guidelines (freshwater) are accessed here in the absence of available suitable Ontario or Federal guidelines (sulphate).

5 Existing arsenic concentrations in the Chukuni River (the receiving environment) are greater than available water quality guidelines; the most appropriate environmental benchmark is the baseline condition (75th percentile arsenic = 0.0096 mg/L.

6 There is no guideline for concentrations of total chromium; it is most common to adopt the PWQO and CCME guidelines for hexavalent (0.001 mg/L) or trivalent (0.0089 mg/L) chromium, dependent on-site conditions and in consultation with regulators.

4 RESULTS – SURFACE WATER

For clarity and ease of discussion, monitored watercourses and waterbodies have been grouped into the following general categories, based on their location, size and potential for Project-related effects:

- Chukuni River
- Dixie Creek
- Unnamed Watercourses
- Unnamed Waterbodies
- Regional Waterbodies (Pakwash Lake, Gullrock Lake).

All reported results are for total concentrations, unless specifically indicated otherwise (e.g., dissolved aluminum, dissolved organic carbon).

4.1 CHUKUNI RIVER

The Chukuni River is the proposed receiving environment for the Project; baseline water quality monitoring has occurred at the following locations (Figure 1-2):

- Chukuni River-REF (CR-REF): downstream of the Snowshoe Dam, upstream of proposed discharge location, upstream of Highway 105
- Chukuni River-FDP (CR-FDP): approximate discharge location
- Chukuni River-DS (CR-DS): downstream of all Project influences, approximately 4 km downstream of planned discharge location, downstream of confluence with Dixie Creek, upstream of Pakwash Lake.

Descriptive summary statistics of baseline water quality of the Chukuni River are presented in Table 4-1. Timeseries graphs for key water quality parameters (pH, total dissolved solids, dissolved organic carbon, sulphate, phosphorus, aluminum, arsenic, cobalt, iron, mercury, methylmercury and zinc) are presented in Appendix C. These parameters were identified for graphing:

- Due to their relevance as indicators of general water quality (e.g. pH, total dissolved solids)
- Are consistently elevated relative to WQG PAL at some stations in the baseline dataset (arsenic, aluminum, cobalt and phosphorus)
- Are anticipated to be seen as important by provincial regulators or third-party stakeholders based on WSP's most recent experiences (mercury, methylmercury and sulphate).

The surface water quality baseline dataset for all monitored parameters is provided in Appendix D.

Overall results indicate surface water quality of the Chukuni River is generally typical of northern Ontario. This includes a circumneutral pH, low concentrations of nutrients (nitrate, nitrite and ammonia), and low concentrations of total dissolved solids and major anions. Sulphate concentrations ranged from approximately 1.0 mg/L to 8.0 mg/L along the Chukuni River, with concentrations relatively similar between all three monitoring stations (Table 4-1, Appendix C).

Total metal and dissolved metal concentrations were generally low on the Chukuni River, and were consistently below identified WQG PAL, with the following exceptions:

- Total arsenic: concentrations were consistently greater than WQG PAL (iPWQO= 0.005 mg/L) at all stations on the Chukuni River, with 75th percentile concentrations ranging from 0.009 mg/L to 0.0096 mg/L. There are no discernable trends along the Chukuni River flow path and arsenic concentrations are similar upstream and downstream of the Dixie Creek confluence. There are no apparent seasonal trends.
- Total phosphorus: approximately 32% of observations for total phosphorus were greater than WQG PAL (iPWQO = 0.03 mg/L) in the Chukuni River. There are no discernable seasonal trends and elevated total

phosphorus concentrations do not relate to total suspended solids levels. The 75th percentile for all stations (0.032 mg/L) classify phosphorus level in the Chukuni River as meso-eutrophic based on the framework provided by the CCME.

- pH: approximately 9% of observations were outside of guideline range (PWQO = pH 6.5 to 8.5). There are no apparent seasonal trends.

In addition, values above the WQG PAL were observed in approximately 5% of total measurements over the monitoring period for the following parameters:

- Total and dissolved aluminum
- Total cadmium
- Total cobalt
- Total copper
- Total lead
- Total mercury (a single observation at station CR-DS in August of 2023)
- Nitrite-N
- Total zinc.

Instances where concentrations were greater than the WQG PAL for these parameters were infrequent, and overall levels in the Chukuni River remained low. The 75th percentile concentrations for these parameters are below the applicable WQG PAL. The elevated concentrations of some of these parameters likely reflect natural conditions shaped by local geology and rock weathering processes. In areas with planned or proposed mining activities, naturally elevated concentrations of metals and other parameters in lakes and rivers are common. This occurs because the geological materials in these regions often contain mineral-rich rocks. When these minerals are exposed to oxygen and water through natural weathering processes, they release trace metals and other elements into the surrounding groundwater and surface waters. Over time, this natural exposure results in higher baseline levels of certain metals in lakes and rivers. Additionally, current water quality of the Chukuni River may also reflect influences from upstream development activities, including activities associated with the Snowshoe Rapids Dam as well as other industrial or historical mining activities in the watershed.

4.2 DIXIE CREEK

The Project will be located primarily within the drainage area of Dixie Creek and its tributaries. Dixie Creek itself crosses the southern portion of the Property and flows into the Chukuni River to the east. Water quality monitoring on Dixie Creek occurred at the following locations (Figure 1-2):

- Upstream of the Project: upstream of the proposed Project footprint (stations: DL-Ref and, DC-US).
- Mid-field: at the southern portion of the proposed Project footprint (stations: SW-03, SW-04, SW-08 and SW-09).
- Far-field: stations downstream of direct Project influences on Dixie Creek, downstream of Unnamed Waterbody 06, upstream of the confluence with the Chukuni River (station SW-15).

Descriptive summary statistics of baseline water quality of Dixie Creek are presented in Table 4-2. Timeseries graphs for select water quality parameters (pH, total dissolved solids, sulphate, dissolved organic carbon, phosphorus, aluminum, arsenic, cobalt, iron, mercury, methylmercury and zinc) are presented in Appendix C. The baseline water quality dataset for all monitored parameters is provided in Appendix D.

Overall results indicate that the surface water quality of Dixie Creek is typical of northern Ontario. This includes a circumneutral pH, low concentrations of most nutrients (nitrate, nitrite and, ammonia) and low concentrations of total dissolved solids. Sulphate concentrations were consistently low in Dixie Creek (0.35 mg/L to 7.0 mg/L). Concentrations of dissolved organic carbon were moderately high in Dixie Creek and average concentrations ranged from 2.0 mg/L to 64.0 mg/L; this likely reflects influences of wetlands in the vicinity.

Total metal and dissolved metal concentrations were low in Dixie Creek, and were consistently below identified WQG PAL, with the following exceptions:

- Total and dissolved aluminum: approximately 11% of observations for total aluminum across the period of record were greater than WQG PAL (FEQG = 0.8 mg/L), with 75th percentile concentrations ranging from 0.38 mg/L to 0.81 mg/L. Similarly, approximately 26% of observations for dissolved aluminum were greater than WQG PAL (iPWQO = 0.075), with 75th percentile concentrations ranging from 0.080 mg/L to 0.098 mg/L. Concentrations of aluminum were higher in 2023 relative to 2022, which corresponds to very dry and low flow conditions on Dixie Creek in 2023 relative to previous years.
- Total phosphorus: approximately 61% of observations for total phosphorus were greater than WQG PAL (iPWQO = 0.03 mg/L) across all monitoring stations on Dixie Creek; corresponding 75th percentile for all stations (0.043 mg/L) classify phosphorus levels in Dixie Creek as eutrophic based on the framework provided by the CCME.
- Total iron: approximately 42% of total iron measurements across all monitoring stations on Dixie Creek were greater than WQG PAL (FEQG = 0.8 mg/L).

In addition, values above the WQG PAL were observed in approximately 5% of total measurements over the monitoring period for the following parameters:

- Total arsenic
- Total cadmium
- Total cobalt
- Total lead
- Total mercury (two observations at station SW-04)
- Total zinc
- pH.

Instances where concentrations were greater than the WQG PAL for these parameters were infrequent, and overall levels in the Chukuni River remained low. The 75th percentile concentrations for these parameters are below the applicable WQG PAL. These stations are proximate to the identified mineralized zones in the area, and elevated concentrations are most likely related to area geology and rock weathering. That is, in areas with planned or proposed mining activities, naturally elevated concentrations of metals and other parameters in lakes and rivers are common. This occurs because the geological materials in these regions often contain mineral-rich rocks. When these minerals are exposed to oxygen and water through natural weathering processes, they release trace metals and other elements into the surrounding groundwater and surface waters. Over time, this natural exposure results in higher baseline levels of certain metals in lakes and rivers.

4.3 UNNAMED WATERCOURSES

Three groups of unnamed watercourses in the Project area were monitored as part of the baseline program:

- Unnamed watercourses draining to Dixie Creek, corresponding to monitoring stations SW-02, SW-08a, SW-07, SW-06, SW-05, SW-10.
- Unnamed watercourses flowing north and proximate to Highway 105, corresponding to monitoring stations SW-GL-02, SW-GL-01, SW-17, SW-18.
- Unnamed watercourses draining to Waterbody 6, corresponding to monitoring stations SW-16, SW-12, SW-12, SW-11.

Unnamed watercourses within the Property boundary are characterized by very low flow, largely ephemeral conditions and disconnected pools. These watercourses have been observed to typically freeze to the bottom during late fall and winter sampling events. Water quality samples are collected only when flow is present, and the stations can be safely accessed. As a result, less water quality data is available for these stations compared to other waterbodies and watercourses included in the water quality baseline program.

Baseline water quality results are presented in Table 4-3, Table 4-4 and Table 4-5 and are discussed in the following sections. Timeseries graphs for select water quality parameters (pH, total dissolved solids, sulphate, dissolved organic carbon, phosphorus, aluminum, arsenic, iron, mercury, zinc and cobalt) are presented in Appendix C. The baseline water quality dataset for all monitored parameters is provided in Appendix D.

4.3.1 UNNAMED WATERCOURSES TO DIXIE CREEK

There are several small watercourses that contribute flow to Dixie Creek within the Property boundary, either on a year-round or seasonal basis (Figure 1-2); these include:

- Unnamed Watercourse 1
- Unnamed Watercourse 2
- Unnamed Watercourse 3
- Unnamed Watercourse 4.

Overall results indicate that surface water quality of the unnamed watercourses is highly seasonally variable as would be expected for shallow, ephemeral, wetland-influenced waters typical to this area of northern Ontario. Unnamed watercourses draining to Dixie Creek were of circumneutral pH with high hardness and dissolved organic carbon concentrations (Table 4-3). Concentrations of nutrients and anions were elevated relative to the main stem Dixie Creek, including observations for chloride, sulphate and total phosphorus. Sulphate concentrations ranged from 0.15 mg/L to 25.0 mg/L, with the highest concentrations observed at monitoring station SW-08a.

Overall, total metal and dissolved metal concentrations are elevated in these unnamed watercourses relative to main stem Dixie Creek. Parameters with concentrations greater than WQG PAL include:

- Total and dissolved aluminum: approximately 22% of observations for total aluminum and 69% of observations for dissolved aluminum were greater than WQG PAL (FEQG = 0.71 mg/L and iPWQO = 0.075 mg/L, respectively). The highest total aluminum concentrations were observed at station SW-08a. Dissolved aluminum concentrations for all unnamed watercourses were similarly elevated across all monitored stations.
- Total arsenic: approximately 16% of observations for total arsenic were greater than WQG PAL (iPWQO = 0.005 mg/L), with the similarly elevated concentrations observed at stations SW-02, SW-05 and SW-08a.
- Total cobalt: approximately 17% of observations for total cobalt were greater than WQG PAL (FEQG = 0.00078 mg/L).
- Total iron: concentrations of total iron were seasonally elevated; concentrations greater than WQG PAL (FEQG = 0.8 mg/L) occurred in approximately 50% of samples and were highest at stations SW-08a, SW-02, and SW-05.
- Total phosphorus: approximately 66% of observations for total phosphorus were greater than WQG PAL (iPWQO = 0.03 mg/L); the corresponding 75th percentile for all stations (0.052 mg/L) classify these unnamed watercourse as eutrophic based on the framework provided by the CCME.

In addition to the above, low frequency instances of values above the WQG PAL were noted for arsenic, cadmium, copper and zinc (Appendix C). pH values below 6.5 were also intermittently observed at all stations. Overall concentrations for these parameters are, however, generally low in unnamed watercourses, and 75th percentile concentrations for these parameters are below the identified WQG PAL. The two exceptions to this are arsenic at SW-02 (75th percentile at 0.005 mg/L) and zinc at SW-07 (75th percentile at 0.031 mg/L for three samples).These stations are proximate to the identified mineralized zones in the area and are heavily influenced by seasonal low flows and seasonally elevated levels of total suspended solids.

4.3.2 UNNAMED WATERCOURSES TO HIGHWAY 105

Unnamed watercourse draining towards Highway 105 as well as to Gullrock Lake are highly ephemeral and were very frequently observed to have no flowing water during field campaigns. Based on available data collected when flow was present, these unnamed watercourses were of circumneutral to slightly acidic pH with high hardness and moderate dissolved organic carbon concentrations (Table 4-4). Sulphate concentrations ranged from approximately 0.15 mg/L to 5.0 mg/L, with the highest concentration observed at SW-17.

Water quality results of these watercourses appear to influence Highway 105, including elevated chloride concentrations relative to other tributaries sampled as part of the baseline program. Except for station SW-TR (near Tuzyk's Road and quarry operations), total metal and dissolved metal concentrations are low in north flowing tributaries, and were consistently below identified WQG PAL, with the following exceptions:

- Total and dissolved aluminum: approximately 74% of observations for total aluminum and 81% of observations for dissolved aluminum were greater than WQG PAL (FEQG= 0.15 mg/L and iPWQO = 0.075 mg/L, respectively).
- Total arsenic: approximately 50% of observations were above WQG PAL (iPWQO = 0.005 mg/L), mainly at SW-TR. Low frequency instances in which values were above WQG PAL were observed for SW-17 and SW-GL02.
- Total cobalt: approximately 13% of observations for cobalt were greater than WQG PAL (FEQG = 0.00078 mg/L), mainly at SW-TR. Low frequency instances in which values were above WQG PAL were observed for SW-18 and SW-GL02.
- Total iron: approximately 87% of observations for total iron were greater than WQG PAL (FEQG = 0.69 mg/L), with 75th percentile ranging from approximately 1.3 mg/L to 3.5 mg/L. Elevated values are most often associated with seasonally high total suspended solids levels.
- Total phosphorus: approximately 56% of observations for total phosphorus were greater than WQG PAL (iPWQO = 0.03 mg/L); corresponding 75th percentile for all stations (0.061 mg/L) classify these watercourses as eutrophic based on the framework provided by the CCME.
- pH: approximately 73% of observations were outside of guideline range (PWQO = pH 6.5 to 8.5). There are no apparent seasonal trends.

In addition to the above, low frequency instances in which values were above WQG PAL were observed for cadmium, chromium, copper, lead, and zinc. Note that most observations above identified WQG PAL were from station SW-TR; this watercourse is likely influenced by gravel pit operations not associated with the Project and therefore is not considered representative of the natural condition of Project-area watercourses.

4.3.3 UNNAMED WATERCOURES TO WATERBODY 6

Unnamed watercourse flowing mostly eastward toward Unnamed Waterbody 6 are within mineralized area for the Project; baseline water quality results are presented in Table 4-5. The general chemistry of these watercourses is similar to the Dixie Creek tributaries; waters were of circumneutral to slightly acidic pH with high hardness and high dissolved organic carbon concentrations.

Concentrations of nitrate, sulphate and chloride were elevated in these unnamed watercourses relative to Waterbody 6. Sulphate concentrations ranged between 0.15 mg/L to 9.4 mg/L, with both the lowest and highest concentrations observed at station SW-11.

Total metal and dissolved metal concentrations were consistently below identified WQG PAL for most parameters, with the following exceptions (Table 4-5):

- Total and dissolved aluminum: total aluminum concentrations were consistently elevated at stations SW-11 and SW-12. Most samples collected at these two stations had concentrations greater than WQG PAL (FEQG = 0.34 mg/L). Approximately 71% of observations for dissolved aluminum were greater than WQG PAL (iPWQO = 0.075 mg/L), with the 75th percentile for total aluminum ranging between 0.15 mg/L and 1.81 mg/L and dissolved aluminum ranging between 0.064 mg/L to 0.63 mg/L.

- Total arsenic: approximately 37% of observations for total arsenic were greater than WQG PAL (iPWQO= 0.005 mg/L), particularly in SW-11 and SW-12, with 75th percentile ranging from 0.0061 mg/L to 0.037 mg/L across the two stations. Low frequency instances in which values were above WQG PAL were observed for SW-13 and SW-16.
- Total cobalt: approximately 50% of observations were greater than WQG PAL (FEQG = 0.00078 mg/L), mainly at SW-11 and SW-12, with 75th percentile ranging between 0.0016 mg/L to 0.007 mg/L across the two stations. Low frequency instances in which values were above WQG PAL were observed for SW-12b and SW-13.
- Total iron: approximately 63% of observations were greater than WQG PAL (FEQG = 0.77 mg/L), mainly at SW-11, SW-12 and SW-13, with 75th percentile ranging between 0.78 mg/L and 7.41 mg/L across the three stations. Low frequency instances in which values were above WQG PAL were observed for SW-12b. Elevated concentrations were generally associated with high total suspended solids levels.
- Total phosphorus: approximately 63% of observations for total phosphorus were greater than WQG PAL (iPWQO = 0.03 mg/L); 75th percentile of for all stations (0.071 mg/L) classify tributaries to Waterbody 6 as eutrophic based on the framework provided by the CCME.

In addition to the above, low frequency instances in which values were above WQG PAL were observed for cadmium, copper, selenium and zinc (Appendix C). Additionally, there were 1 instance where monitored concentrations of total mercury were above the WQG PAL (at station SW-12). However, overall concentrations for these parameters are low in unnamed watercourses, and 75th percentile concentrations for these parameters are generally below the identified WQG PAL. The only exception is zinc at SW-16 (75th percentile of 0.03 mg/L for four samples).

4.4 LAKES AND UNNAMED WATERBODIES

There are four waterbodies monitored within the Property boundary (Figure 1-2):

- Unnamed Waterbody 6
- Genessee Lake
- Unnamed Waterbody 1
- Dixie Lake.

Baseline water quality results are presented in Table 4-6 and discussed in the following sections. Timeseries graphs for select water quality parameters (pH, total dissolved solids, sulphate, dissolved organic carbon, phosphorus, aluminum, arsenic, cobalt, iron, mercury, methylmercury and zinc) are presented in Appendix C. The baseline water quality dataset for all monitored parameters is provided in Appendix D.

Physicochemical profiling of the deep basin lakes, Unnamed Waterbody 6 and Genessee Lake, began in October 2023 and has proceeded quarterly for Unnamed Waterbody 6 and monthly for Genessee Lake, in coordination with scheduled water quality sampling. Depth-specific water quality sampling and lake stratification monitoring support the identification of potential seasonal influences on water quality, including the formation of anoxic zones and lake turnover. This approach aligns with recommendations provided by Lac Seul First Nation and Wabauskang First Nation in January 2025 to harmonize methods with their Nation-led regional monitoring program. Temperature and dissolved oxygen profiles are provided in Appendix F.

4.4.1 UNNAMED WATERBODY 6

Unnamed Waterbody 6 is monitored at station SW-14 (Figure 1-2). It is a shallow waterbody that has wide riparian habitat comprised of grasses, sedges and shrubs along the northwest margin. Unnamed Waterbody 6 ultimately outlets to Dixie Creek, upstream of station SW-15.

Bathymetric surveys were completed for Unnamed Waterbody 6 as part of the fisheries resources baseline program. The lake features shallow littoral zones on the eastern and western margins, surrounding a large, relatively uniform central basin. The maximum recorded water depth was approximately 1.8 m, with an average depth of about 1.3 m. During summer monitoring in August 2024, temperature and dissolved oxygen

profiling indicated minor stratification in this waterbody, with a drop in dissolved oxygen concentration to 0.54 mg/L at the bottom. Winter conditions under ice also observe declining oxygen concentrations with depth, reaching 1.04 mg/L at bottom.

The surface waters of Unnamed Waterbody 6 are circumneutral to slightly acidic pH with high hardness and moderate dissolved organic carbon concentrations (Table 4-6). Sulphate concentrations were very low, ranging from 0.36 mg/L to 1.0 mg/L. Phosphorus levels are elevated in Waterbody 6, with a 75th percentile value of 0.032 mg/L. This phosphorus level is classified as meso-eutrophic based on the framework provided by the CCME.

The bottom waters of Unnamed Waterbody 6 are circumneutral to slightly alkaline pH with an increase in hardness and dissolved organic carbon concentrations observed through depth (Table 4-6). Sulphate concentrations in bottom waters are very low, ranging from 0.36 mg/L to 0.64 mg/L. Phosphorus level were elevated, with a meso-eutrophic 75th percentile value of 0.031 mg/L.

Total and dissolved metal concentrations in Unnamed Waterbody 6 were consistently low and remained below the identified WQG PAL (Table 4-6). Occasional instances of values above the WQG PAL were observed in the upper waters for arsenic, cadmium, iron, selenium, and zinc (Appendix C). However, overall concentrations for these parameters are low, and 75th percentile concentrations for these parameters are below the identified WQG PAL.

4.4.2 GENESSEE LAKE

Genessee Lake is monitored at station SW-GL. It is a large lake with multiple basins and embankments. The east basin is a deep basin (> 10 m) that consists mostly of exposed bedrock and bouldered shorelines with mixed coniferous and deciduous forest. The west basin is comprised of gradual sloping shorelines with emergent grasses and shrubs merging into a mixed deciduous and coniferous forest.

Lake profiles were taken twice as part of the fisheries resources baseline program. Genessee Lake has an average depth of approximately 4 m, with maximum depth recorded of approximately 11 m. Summer lake stratification is observed between June and September. The epilimnion extends to a depth of 5 m and meets a 2 m metalimnion before reaching the hypolimnion around 7 m. Concurrently, dissolved oxygen concentrations are observed to begin decreasing at 4 m before reaching a low of 0.27 mg/L at 7 m. Winter lake stratification is also observed between January to April and is reflected in decreasing dissolved oxygen concentrations through the water column, reaching a low of 1.93 mg/L near the bottom of the lake. Fall turnover is observed to occur from October to November, and Spring turnover is observed to occur in May whereby the entire water column is fully oxygenated (> 10 mg/L dissolved oxygen).

The upper waters of Genessee Lake are of circumneutral pH, with moderate hardness and dissolved organic carbon concentrations (Table 4-6). Concentrations of nitrogen species and major anions are low. Sulphate concentrations are very low, ranging from 0.54 mg/L to 4.0 mg/L. Concentrations of phosphorus are moderate, with 75th percentile total phosphorus of 0.020 mg/L. This phosphorus level is classified as meso-eutrophic based on the framework provided by the CCME.

The bottom waters of Genessee Lake are circumneutral to slightly acidic pH with continued moderate hardness and DOC concentrations as observed in the upper waters (Table 4-6). Sulphate concentrations in bottom waters are lower than upper waters, ranging from 0.15 mg/L to 0.72 mg/L. Concentrations of phosphorus were also observed to be higher than upper waters, with a eutrophic 75th percentile value of 0.036 mg/L.

Total metal and dissolved metal concentrations are very low in Genessee Lake and were consistently below identified WQG PAL (Table 4-6). Low frequency instances in which values were above WQG PAL were observed for nitrite, cadmium and selenium in upper waters (Appendix C). However, overall concentrations for these parameters are low, and 75th percentile concentrations for these parameters are below the identified WQG PAL. In bottom waters, only a single arsenic measurement was above the identified WQG PAL.

4.4.3 UNNAMED WATERBODY 1

Unnamed Waterbody 1 is very shallow and has wide riparian habitat dominated by shrubs, grasses, and sedges along the margins. Its outlet drainage reports to Unnamed Watercourse 1. Lake profiles were completed as part of the fisheries resources baseline program, with a maximum observed depth of approximately 0.5 m.

Water quality of Unnamed Waterbody 1 is monitored at the outlet, SW-01. The waters of Unnamed Waterbody 1 are circumneutral to slightly acidic pH with moderate hardness and high dissolved organic carbon concentrations (Table 4-6). Sulphate concentrations are variable ranging from 0.15 mg/L to approximately 5.5 mg/L. Phosphorus levels are elevated in Waterbody 1 with 75th percentile values of 0.037 mg/L. This phosphorus level is classified as eutrophic based on the framework provided by the CCME.

Total and dissolved metal concentrations are low in Unnamed Waterbody 1, and were consistently below identified WQG PAL, with the following exceptions:

- Dissolved aluminum: approximately 97% of observations for dissolved aluminum were greater than WQG PAL (iPWQO = 0.075 mg/L).
- Total arsenic: approximately 57% of observations for total arsenic were greater than WQG PAL (iPWQO= 0.005 mg/L).
- Total cobalt: approximately 14% of observations for total cobalt were greater than WQG PAL (FEQG = 0.00078 mg/L)
- Total iron: concentrations were seasonally elevated; concentrations greater than WQG PAL occurred in about 54% of samples (FEQG = 0.8 mg/L) and were generally associated with high total suspended solids levels.
- pH: approximately 74% of observations were slightly acidic and below guideline range (PWQO = pH 6.5 to 8.5). There are no apparent seasonal trends.

In addition to the above, low frequency instances in which values were above WQG PAL were observed for total aluminum and zinc (Appendix C). A single elevated value for mercury was observed at SW-01 in February 2023. However, overall concentrations for these parameters are low, and 75th percentile concentrations for these parameters are below the identified WQG PAL.

4.4.4 DIXIE LAKE

Dixie Lake is a large, shallow, lake west of the Project site within the Dixie River system. It is comprised of two distinct basins, separated by a narrow channel, and measures around 4.5 km long. Maximum depth is approximately 3.5 m, with substrate ranging from coarse sand to finer silt and clay. Submergent vegetation is present throughout the lake, as well as emergent vegetation in nearshore areas.

Water quality monitoring on Dixie Lake occurs at the following stations:

- DL-Ref: at the inlet of Dixie Lake, outside of the Property Boundary.
- DC-US: at outlet Dixie Lake to Dixie Creek.

Water quality results are summarized in Table 4-6; tabulated data by sampling event are provided in Appendix C.

Results indicate that the waters of Dixie Lake are of circumneutral pH, with low concentrations of most nutrients (nitrate, nitrite, ammonia) and major anions (sulphate, chloride). Like other lakes monitored as part of the baseline study, phosphorus concentrations were greater than available guidelines and 75th percentile for phosphorus at both the inlet of Dixie Lake (0.046 mg/L) and the outlet of Dixie Lake (0.038 mg/L) classify Dixie Lake as eutrophic based on the framework provided by the CCME.

Total metal and dissolved metal concentrations are very low within Dixie Lake, with one exception:

- Dissolved aluminum: approximately 27% of observations at the Dixie Lake were above identified WQG PAL (iPWQO = 0.075 mg/L).

In addition to the above, low frequency instances in which values were above WQG PAL (about 5% of total observations) were observed for nitrite and iron (Appendix C). Observations above the WQG PAL for these parameters occurred infrequently, and overall concentrations in Dixie Lake are low. The 75th percentile concentrations for all parameters are below the identified WQG PAL.

4.5 REGIONAL MONITORING

There are two waterbodies monitored as part of farther field, regional monitoring:

- Gullrock Lake.
- Pakwash Lake.

Baseline water quality results for Gullrock Lake and Pakwash Lake are presented in Table 4-7 and Table 4-8, respectively, and discussed in the following sections. Timeseries graphs for select water quality parameters (pH, total dissolved solids, sulphate, dissolved organic carbon, phosphorus, aluminum, arsenic, cobalt, iron, mercury, methylmercury and zinc) are presented in Appendix C. The baseline water quality dataset for all monitored parameters is provided in Appendix D.

Physicochemical profiling at all monitoring stations on Pakwash Lake through depth commenced in October 2023 and has proceeded in conjunction with scheduled quarterly sampling for water quality parameters. Monitoring for lake stratification can allow the Project to identify potential seasonal effects on water quality parameters due to the potential establishment of anoxic zones in the water column and lake turnover, aligning with recommendations proposed by the Lac Seul First Nation and Wabauskang First Nations in January 2025 as well as provide harmonization with the sampling methods in their Nation-led regional monitoring program. Temperature and oxygen profiles for all monitoring stations in Pakwash Lake and preliminary profiles for Gullrock Lake are presented in Appendix F.

4.5.1 GULLROCK LAKE

Water quality monitoring on Gullrock Lake commenced in October 2024 and is ongoing through 2025 (Section 3.1). Water quality sampling was conducted at stations GRL-01, GRL-02 and GRL-03 (Figure 1-2). These sites were established in response to feedback received during consultation and are downstream of potential effects of historical mining activities at Red Lake and upstream of proposed discharge to the Chukuni River.

Baseline water quality results are summarized in Table 4-7. The baseline water quality dataset for all monitored parameters is provided in Appendix D. Temperature and oxygen profiles are presented in Appendix D.

In Gullrock Lake, a single set of physiochemical profiles is available at the time of this reporting and was collected in October 2024. These profiles do not indicate lake stratification and may reflect conditions during seasonal turnover. At stations GRL-02 and GRL-03, dissolved oxygen concentrations generally decrease with depth, ranging from approximately 2.7 mg/L to 11.3 mg/L. Available data indicate that Gullrock Lake is of circumneutral pH with low concentrations of most nutrients (nitrate, nitrite, ammonia) and low concentrations of total dissolved solids. Sulphate concentrations were low, ranging from 5.6 mg/L to 7.0 mg/L with the highest concentrations observed at the bottom of GRL-03. The 75th percentile for phosphorus across all stations (0.031 mg/L) would classify Gullrock Lake in October 2024 as meso-eutrophic based on the framework provided by the CCME.

Available data show that total metals and dissolved metal concentrations were low within Gullrock Lake and were consistently below identified WQG PAL, with the following exception:

- Total arsenic: concentrations were greater than WQG PAL (iPWQO= 0.005 mg/L) at all monitoring stations on October 7, 2024, sampling date. The highest concentration was observed in a GRL-03 bottom sample with 0.0112 mg/L.

4.5.2 PAKWASH LAKE

Pakwash Lake is a large lake outside of the Property boundary. The closest monitoring station to the Project is station PL-01, which is about 6 km downstream of the of CR-FDP monitoring station (proposed discharge location on the Chukuni River). Pakwash Lake has multiple basins and embayments, extending about 17 km southwest from Highway 105 to its outflow into the English River system.

Water quality monitoring on Pakwash Lake commenced in 2023. Samples were collected in May, August and October at the following locations (Figure 1-2):

- PL-01: at the inlet of Chukuni River in Pakwash Lake
- PL-02: near the inlet of Trout Lake River in Pakwash Lake
- PL-03: downstream of PL-01 and PL-02
- PL-04: approximate mid-basin
- PL-05: near the outlet of Pakwash Lake.

Physicochemical profiling indicated that the water column at these locations remains oxygenated throughout the year, with dissolved oxygen concentrations averaging about 6.4 mg/L during the summer season and 14.0 mg/L during the winter season. For PL-03 and PL-05, summer stratification is observed in the August 2024 profiles whereby dissolved oxygen concentrations begin to decrease below 6 m, reaching 0.24 mg/L at the bottom of PL-03 and 0.93 mg/L at the bottom of PL-05.

Baseline water quality results are provided in Table 4-8. Timeseries graphs for select water quality parameters (pH, phosphorus, aluminum, arsenic, copper, cobalt) are presented in Appendix C. The baseline water quality dataset for all monitored parameters is provided in Appendix D. Temperature and oxygen profiles are presented in Appendix F.

Results indicate that Pakwash Lake is of circumneutral pH, with low concentrations of most nutrients (nitrate, nitrite, ammonia) and low concentrations of total dissolved solids. Sulphate concentrations ranged from approximately 1.5 mg/L to 5.9 mg/L, with the highest concentrations observed at station PL-01, directly downstream of inflows from the Chukuni River. Sulphate concentrations are fairly consistent with water column depth, with the average concentration of 3.5 mg/L in the upper waters and a 3.8 mg/L average in the bottom waters. The average sulphate concentration at the outlet of Pakwash Lake was 3.4 mg/L.

Total and dissolved metal concentrations were generally low at all stations within Pakwash Lake, and were consistently below identified WQG PAL, with the following exceptions:

- Total arsenic: approximately 55% of observations within Pakwash Lake were above WQG PAL (iPWQO = 0.005 mg/L) with 75th percentile ranging from approximately 0.003 mg/L to 0.009 mg/L in the upper waters and 0.003 mg/L to 0.008 mg/L in the bottom waters. Arsenic concentrations were similarly elevated all monitoring stations except for the inlet of Troutlake River, corresponding to monitoring station PL-02, which only had one sample above WQG PAL in its upper waters.
- Total phosphorus: approximately 78% of observations within Pakwash Lake were above WQG PAL (iPWQO = 0.02 mg/L), with the greatest concentrations recorded at PL-03. Phosphorus concentrations generally increase with water column depth; 75th percentile for both upper waters (0.028 mg/L) and bottom waters (0.033 mg/L) classified as meso-eutrophic based on the framework provided by the CCME.

In addition to the above, only one bottom sample for PL-02 was observed to have an iron concentration above identified WQG PAL (FEQG = 0.8 mg/L). The 75th percentile concentration for iron is below identified WQG PAL.

4.6 SUPPLEMENTAL MERCURY ANALYSES

Aquatic environments in northern Ontario contain mercury from long-range atmospheric transport and deposition of gaseous elemental mercury from sources like volcanic activity and industrial emissions, particularly from coal-fired power plants coal-fired power plants (e.g., Government of Canada 2023; Thomas

1972). As per the MECP website, approximately 40% of mercury deposited in Ontario originates from air emissions from human activities, including coal-fired power plants. As industrial activity is a relatively recent phenomenon, sediment profiles in many environments typically show higher mercury concentrations in the upper layers.

In natural aquatic environments, most of the total mercury present exists as inorganic mercury, largely in the form of $Hg(OH)_2$ and $HgCl_2$ and less than five percent of total mercury typically occurs as methylmercury (CH_3Hg; CCME 2003). Characterizing the site-specific distribution of different forms of mercury, especially the proportion of methylmercury to inorganic mercury, is important because methylmercury is the form most readily taken up by aquatic organisms and biomagnified through the food chain. This process generally results in the highest body-burden mercury concentrations occurring in top fish predators (e.g., Northern Pike and Walleye) and in fish-eating birds and mammals.

To support the assessment of baseline mercury levels in the aquatic environment, a comprehensive surface water quality monitoring program has been implemented. Concentrations of total and dissolved mercury are monitored at all sampling locations (Figure 1-2). Starting in 2022, surface water mercury monitoring has included standard mercury by CVAAS with typical reported detection limits of approximately 5 ng/L, which is well below the existing CCME guideline of 26 ng/L. Key results for mercury and methylmercury concentrations in surface water are presented in this section. Supplemental discussion of baseline mercury and methylmercury for fish tissue metals, benthos and sediment is provided in the Mercury Study Report (WSP 2025d).

Standard mercury data are supplemented by an ultra-low-level detection mercury monitoring program conducted at key sites within the Chukuni River, Pakwash Lake, and within the Property boundary (Figure 1-2). Supplemental mercury analyses included:

- Total and dissolved ultra-low mercury using (CVAFS with detection limits of approximately 0.04 ng/L (or 0.00000004 mg/L)
- Total and dissolved ultra-low methylmercury using CVAFS with detection limits of approximately 0.0035 ng/L (or 0.0000000035 mg/L).

These supplemental analyses allow for a more in-depth assessment of seasonal variation of very low mercury concentrations and an overall improved understanding of very low mercury levels in the local natural environment.

Results from standard mercury analyses by CVAAS indicate that, overall, mercury concentrations in sampled watercourses and waterbodies are generally very low, at or below the detection limit of 5 ng/L, and well below the WQG PAL of 26 ng/L (Tabled 4-1 through Table 4-8). Measured total mercury concentrations across the study area ranged from < 5.0 ng/L to 150 ng/L. At most monitoring stations (35 out of 37), dissolved mercury comprised the vast majority of total mercury concentrations, accounting for more than 85%.

The highest mercury concentrations were observed within the north-flowing unnamed tributaries in the Dixie Creek watershed (7.8 ng/L average), with the greatest single value observed at monitoring station SW-TR (150 ng/L). As discussed above, this watercourse is likely impacted by historical gravel pit operations not associated with the Project and thus is not considered representative of the conditions of the overall Project-area watershed.

Over the 2020 to 2024 monitoring period, there were nine instances within the baseline study area in which observed mercury concentrations were above WQG PAL (26 ng/L):

- 70 ng/L at SW-04 on July 25, 2022
- 30 ng/L at SW-04 on August 9, 2022
- 50 ng/L at SW-09 on August 23, 2022
- 50 ng/L at CR-DS on August 23, 2022
- 30 ng/L at SW-12 on August 29, 2022
- 56 ng/L at DC-US on October 18, 2022

- 30 ng/L at SW-01 on February 8, 2023
- 150 ng/L at SW-TR on February 13, 2023
- 41.7 ng/L at SW-11 on April 4, 2024.

Supplemental ultra low-level mercury analyses by CVAFS results showed total mercury concentrations ranging from 0.40 ng/L to 18.5 ng/L, with an average concentration of 2.7 ng/L and a median concentration of 1.7 ng/L. In line with results from the standard CVAAS analyses discussed above, the north-flowing unnamed tributaries were observed to have the highest mercury concentrations.

Methylmercury concentrations across all sampled watercourses and waterbodies ranged from 0.014 ng/L to 2.7 ng/L, with an average concentration of 0.19 ng/L and a median concentration of 0.059 ng/L. Methylmercury concentrations for all samples collected remained well below the WQG PAL of 4 ng/L. The highest average methylmercury concentrations were observed in tributaries to Unnamed Waterbody 6 (0.8 ng/L average), and the highest single concentration collected was at the north-flowing unnamed tributary, SW-TR (2.7 ng/L). As mentioned previously, this watercourse is likely impacted by historical gravel pit operations not associated with the Project and is not considered representative of the natural conditions of the area. The lowest average methylmercury concentrations were observed within Gullrock Lake (0.026 ng/L average).

Methylmercury constitutes between 1.0% to 54.3% of the total mercury in sampled watercourses and waterbodies, with an average value of 6.2% and a median value of 4.2% across all samples collected. The highest relative proportion of methylmercury was observed at SW-TR, and the lowest proportion of methylmercury was observed at SW-14.

Methylmercury concentrations within the Dixie Creek watershed and the Chukuni River ranged from 0.014 ng/L to 2.74 ng/L. Methylmercury constitutes approximately 1% to up to 54% of the total mercury across samples collected within the Dixie Creek watershed and the Chukuni River.

Seasonal trends in methylmercury were observed in Dixie Creek, particularly at SW-03 and SW-08 (stations on main-stem Dixie Creek), as well as at SW-08a (tributary to Dixie Creek; meets with main-stem Dixie Creek near SW-08). Specifically, methylmercury concentrations in Dixie Creek were higher in warmer months (May to August), although concentrations remained well below the WQG PAL (4 ng/L). In all other waterbodies and waterways in the Dixie Creek watershed, there were no apparent seasonal trends for methylmercury (Appendix C).

In Pakwash Lake, total and dissolved mercury concentrations in all samples collected at all depths and monitoring stations from 2023 to 2024 were below the detection limit for standard CVAAS mercury (< 0.00005 mg/L). The supplemental ultra-low-level mercury analysis revealed an average total mercury concentration of 1.3 ng/L, with the highest concentration recorded in a bottom sample at PL-02 (approximately 5 ng/L) and the lowest concentration recorded at the outlet, PL-05 (approximately 0.6 ng/L). No apparent seasonal trends were observed (Appendix C).

Methylmercury concentrations in Pakwash Lake ranged from approximately 0.02 ng/L to 0.14 ng/L. The highest methylmercury concentration was recorded in a bottom sample at the inlet of Chukuni River (PL-01), and the lowest methylmercury concentration was recorded downstream at PL-03 and PL-04. No seasonal or spatial trends were identified as methylmercury concentrations remained low across all stations throughout the available period of record (Appendix C).

Table 4-1: Chukuni River, Baseline Water Quality

Parameter	WQG PAL	CR-REF				CR-FDP				CR-DS			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	31	7.16	7.47	7.73	27	6.89	7.26	7.72	23	6.59	7.11	7.57
Lab pH (s.u.)	6.5 - 8.5	40	7.38	7.47	7.59	29	7.38	7.44	7.55	28	7.34	7.47	7.6
Lab Conductivity (µS/cm)	-	40	74	80	89.9	29	74	81.6	90.5	28	76.2	83.2	92.5
Total Alkalinity (as $CaCO_3$)	-	26	28.5	28.5	31.9	22	29.3	32.5	33.8	18	30	32.4	35.9
Total Hardness (as $CaCO_3$)	-	40	35	37.6	40.9	29	35.7	37.7	40.3	28	36.9	40	41.8
Total Dissolved Solids	-	40	56.6	64.4	74.4	29	51	57.1	66	28	56.9	62.8	70.7
Total Suspended Solids	-	39	2.65	10.7	10.5	29	3.5	8.94	6.8	27	4.15	5.88	7.05
Total Ammonia (as N)	1.8	9	0.005	0.0183	0.0273	8	0.005	0.0176	0.0219	7	0.0137	0.0213	0.0209
Nitrate (as N)	3	40	0.00483	0.0522	0.0709	29	0.0063	0.0509	0.0777	28	0.00633	0.0358	0.03
Nitrite (as N)	0.06	40	0.0005	0.00905	0.015	28	0.0005	0.00635	0.015	28	0.0005	0.011	0.015
Phosphorus	0.03	40	0.017	0.027	0.03	29	0.022	0.033	0.032	28	0.020	0.028	0.032
Sulphate	218	38	4.92	5.71	6.59	29	4.77	5.47	6.23	27	4.13	4.76	5.97
Chloride	120	40	2.31	2.9	3	29	2.39	2.9	3	28	2.2	2.81	3
Dissolved Organic Carbon	-	39	10.3	11.8	13	29	11	12.2	13	27	11	12.7	14.3
Total Cyanide	-	33	0.0005	0.0022	0.005	28	0.0005	0.00231	0.005	23	0.0005	0.00246	0.005
Cyanide (WAD)	-	25	0.0005	0.00124	0.0005	20	0.0005	0.00124	0.0005	15	0.0005	0.000947	0.0005
Cyanide (Free)	0.005	27	0.0005	0.000974	0.0009	23	0.0005	0.000959	0.000775	18	0.0005	0.00101	0.00108
Aluminum	1.0	40	0.0668	0.195	0.214	29	0.105	0.177	0.197	28	0.122	0.199	0.237
Aluminum (dissolved)	0.075	34	0.0113	0.0307	0.0315	25	0.01	0.029	0.0243	23	0.014	0.0263	0.0326
Antimony	0.02	40	0.00031	0.000377	0.00045	29	0.0003	0.000375	0.00045	28	0.00028	0.000361	0.00045
Arsenic	0.005	40	0.00606	0.00836	0.00913	29	0.00615	0.0082	0.00951	28	0.00572	0.00805	0.00964
Cadmium	0.0001	40	0.0000025	0.00000976	0.000008	29	0.0000025	0.0000224	0.00000825	28	0.0000025	0.0000228	0.00000845
Chromium	0.0089	40	0.000285	0.000707	0.00067	29	0.00032	0.000635	0.00061	28	0.000355	0.000655	0.00074
Cobalt	0.00078	40	0.0000915	0.000157	0.000176	29	0.0001	0.000143	0.00015	28	0.000112	0.00015	0.000173
Copper	0.005	40	0.00143	0.00175	0.00171	29	0.00139	0.00166	0.0017	28	0.00135	0.00348	0.00163
Iron	0.8	40	0.0969	0.236	0.263	29	0.15	0.286	0.259	28	0.171	0.264	0.328
Lead	0.003	40	0.0000518	0.000146	0.000153	29	0.00007	0.000124	0.00012	28	0.0000905	0.00014	0.000143
Molybdenum	0.073	40	0.000185	0.000223	0.00024	29	0.000192	0.00023	0.00024	28	0.000198	0.000259	0.000292
Nickel	0.025	40	0.00121	0.00148	0.00151	29	0.00122	0.00192	0.00147	28	0.0012	0.00135	0.00143
Selenium	0.001	40	0.0000895	0.000123	0.000127	29	0.000092	0.00028	0.00012	28	0.0000895	0.000415	0.000122
Silver	0.0001	40	0.000005	0.0000145	0.000025	28	0.000005	0.0000147	0.000025	28	0.000005	0.000017	0.000025
Strontium	2.5	40	0.0286	0.0298	0.0308	29	0.0284	0.0297	0.0316	28	0.0277	0.0303	0.0314
Thallium	0.0003	35	0.0000025	0.0000048	0.000005	28	0.0000025	0.00000496	0.000005	24	0.000005	0.00000465	0.000005
Tungsten	0.03	40	0.0000375	0.0000485	0.00005	28	0.00004	0.0000429	0.00005	28	0.00003	0.0000646	0.00005
Uranium	0.005	40	0.000087	0.000119	0.000133	29	0.000092	0.000116	0.000129	28	0.0000915	0.000121	0.000143
Vanadium	0.12	40	0.000414	0.000721	0.000813	29	0.00044	0.0007	0.000815	28	0.000628	0.000807	0.00088
Zinc	0.02	40	0.00138	0.00235	0.00225	28	0.0015	0.0027	0.00225	28	0.00138	0.00254	0.002
Zirconium	0.004	39	0.0001	0.000572	0.001	29	0.0001	0.000502	0.001	28	0.00024	0.00062	0.001
Mercury	0.000026	34	0.0000025	0.00000346	0.000005	28	0.0000025	0.00000295	0.000005	25	0.0000025	0.0000055	0.000005
Methylmercury (ng/L)	4	23	0.029	0.0456	0.057	21	0.035	0.072	0.049	16	0.05	0.0551	0.062
Ultra Low Mercury (ng/L)	26	24	0.748	1.22	1.61	22	0.68	1.49	1.35	17	0.76	1.22	1.81

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-2: Dixie Creek, Baseline Water Quality

Parameter	WQG PAL	SW-03				SW-04				SW-08				SW-09			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	27	6.92	7.26	7.75	34	6.4	6.78	7.2	33	6.62	6.99	7.41	20	6.89	7.15	7.42
Lab pH (s.u.)	6.5 - 8.5	27	7.75	7.89	8.13	37	7.3	7.46	7.6	35	7.39	7.51	7.63	22	7.36	7.51	7.65
Lab Conductivity (µS/cm)	-	27	190	209	253	37	72.6	102	118	35	74.5	105	107	22	71	98	95.4
Total Alkalinity (as $CaCO_3$)	-	18	124	121	136	24	34.5	51.8	55.3	25	34.1	49.8	50.7	14	36.2	50.1	48.2
Total Hardness (as $CaCO_3$)	-	27	105	111	129	36	38.7	53.2	58	35	38.7	55.2	56.9	22	39.7	52.4	49.7
Total Dissolved Solids	-	27	141	155	178	37	69	90.6	97	35	66.8	92.8	100	22	71.5	90.3	96
Total Suspended Solids	-	27	4.6	41.7	27	37	5.3	8.61	10.7	35	6	13.6	12.1	22	7.35	18.6	18.5
Total Ammonia (as N)	1.8	8	0.0056	0.0254	0.0225	10	0.0185	0.029	0.033	9	0.021	0.0332	0.0413	6	0.0123	0.0228	0.0367
Nitrate (as N)	3	27	0.03	0.134	0.155	37	0.03	0.0672	0.0962	35	0.03	0.0846	0.113	22	0.0175	0.0554	0.0794
Nitrite (as N)	0.06	27	0.00085	0.00633	0.015	37	0.0005	0.0117	0.015	35	0.00065	0.00772	0.015	22	0.0005	0.00731	0.015
Phosphorus	0.03	27	0.026	0.050	0.056	37	0.027	0.036	0.041	35	0.027	0.038	0.042	22	0.033	0.045	0.048
Sulphate	218	27	1.11	2.54	3.2	37	0.77	0.881	1	34	0.864	1.36	1.11	22	0.733	1.25	1
Chloride	120	27	0.75	1.27	1.47	37	0.35	0.711	0.99	35	0.38	1.57	1.75	22	0.33	1.02	1.2
Dissolved Organic Carbon	-	27	4.85	15.8	18.2	37	17.1	20.2	22.8	35	16.2	18.9	21.8	22	18	21.1	23.9
Total Cyanide	-	27	0.0005	0.0033	0.005	33	0.0005	0.00247	0.005	33	0.0005	0.00355	0.005	22	0.0005	0.00232	0.005
Cyanide (WAD)	-	19	0.0005	0.00111	0.00125	22	0.0005	0.00109	0.00095	22	0.0005	0.00117	0.00118	14	0.0005	0.000736	0.0005
Cyanide (Free)	0.005	19	0.0005	0.000966	0.0013	25	0.0005	0.00107	0.0018	24	0.0005	0.00109	0.00161	14	0.0005	0.00065	0.0005
Aluminum	0.8	27	0.145	0.648	0.814	37	0.21	0.327	0.375	35	0.205	0.551	0.479	22	0.222	0.851	0.55
Aluminum (dissolved)	0.075	23	0.007	0.099	0.081	34	0.041	0.075	0.084	31	0.042	0.065	0.080	20	0.055	0.067	0.081
Antimony	0.02	27	0.00005	0.0002	0.00045	37	0.00005	0.00024	0.00045	34	0.00005	0.000221	0.00045	22	0.00005	0.0002	0.00045
Arsenic	0.005	27	0.00141	0.0024	0.00292	37	0.0019	0.0025	0.0027	35	0.00194	0.00246	0.00292	22	0.00208	0.00267	0.00337
Cadmium	0.0001	27	0.0000025	0.0000147	0.0000159	37	0.0000025	0.0000095	0.000009	35	5.25E-06	0.00000982	0.0000108	22	0.00000263	0.0000153	0.0000101
Chromium	0.0089	27	0.000405	0.00139	0.00179	37	0.00062	0.000844	0.00096	35	0.000548	0.00116	0.00109	22	0.000688	0.0018	0.00126
Cobalt	0.00078	27	0.000145	0.000449	0.00056	37	0.00016	0.000249	0.00028	35	0.00016	0.000292	0.000275	22	0.000213	0.000416	0.000315
Copper	0.005	27	0.000635	0.00212	0.00344	37	0.00101	0.00132	0.00139	35	0.00101	0.00147	0.00155	22	0.00113	0.00181	0.00151
Iron	0.8	27	0.29	0.90	1.16	37	0.60	0.79	0.91	35	0.55	0.94	0.95	22	0.62	1.19	0.95
Lead	0.003	27	0.000064	0.00026	0.000306	37	0.000146	0.000224	0.000266	35	0.000152	0.000288	0.000283	22	0.000198	0.000391	0.000313
Molybdenum	0.073	27	0.000659	0.000691	0.000776	37	0.000206	0.00028	0.00028	35	0.000216	0.000344	0.000375	22	0.000207	0.00264	0.000326
Nickel	0.025	27	0.000655	0.00175	0.0024	37	0.0008	0.00098	0.00106	35	0.00084	0.00172	0.00127	22	0.000968	0.00158	0.00129
Selenium	0.001	27	0.000098	0.000141	0.000169	37	0.00009	0.000183	0.000139	35	0.0000948	0.000153	0.000133	22	0.000109	0.000214	0.00014
Silver	0.0001	27	0.000005	0.0000399	0.000025	37	0.000005	0.0000399	0.000025	34	0.000005	0.0000168	0.000025	22	0.000005	0.0000138	0.000025
Strontium	2.5	27	0.049	0.0519	0.0564	37	0.0243	0.0333	0.037	35	0.026	0.0346	0.0356	22	0.0254	0.0334	0.0349
Thallium	0.0003	27	0.000005	0.00143	0.000006	34	0.000005	0.00000576	5.75E-06	33	0.000005	0.000451	0.000009	21	0.000005	0.0000138	0.000011
Tungsten	0.03	27	0.00005	0.000587	0.000125	37	0.00003	0.00033	0.00005	34	0.00005	0.000231	0.000245	22	0.00005	0.000125	0.000105
Uranium	0.005	27	0.00105	0.00116	0.00139	37	0.000194	0.000269	0.000288	35	0.000208	0.000369	0.000378	22	0.000218	0.000325	0.000373
Vanadium	0.12	27	0.00115	0.00231	0.00292	37	0.00107	0.00132	0.00138	35	0.00101	0.00168	0.00149	22	0.00137	0.00249	0.00177
Zinc	0.02	27	0.0015	0.00418	0.0043	37	0.0015	0.00219	0.003	34	0.0015	0.00357	0.0036	22	0.0015	0.00301	0.002
Zirconium	0.004	27	0.000265	0.000856	0.001	36	0.000348	0.000643	0.001	35	0.000405	0.000755	0.001	22	0.000485	0.000972	0.001
Mercury	0.000026	27	0.0000025	0.00000529	0.000005	34	0.0000025	0.00000632	0.000005	34	0.0000025	0.00000374	0.000005	22	0.0000025	0.0000056	0.000005
Methylmercury (ng/L)	4	20	0.066	0.147	0.198	4	0.0478	0.0695	0.0848	23	0.071	0.167	0.176	5	0.06	0.0759	0.086
Ultra Low Mercury (ng/L)	26	21	1.04	4.2	5.61	4	1.71	1.87	1.9	24	1.86	2.86	3.55	6	1.49	2.01	1.93

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-2: Dixie Creek, Baseline Water Quality (*Continued*)

Parameter	WQG PAL	SW-15			
		Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	21	6.64	6.87	7.14
Lab pH (s.u.)	6.5 - 8.5	28	7.25	7.45	7.66
Lab Conductivity (µS/cm)	-	28	83	116	147
Total Alkalinity (as $CaCO_3$)	-	14	39.1	53	63.1
Total Hardness (as $CaCO_3$)	-	28	45.6	63.2	80.3
Total Dissolved Solids	-	28	80	104	130
Total Suspended Solids	-	28	5	7.53	10.3
Total Ammonia (as N)	1.8	4	0.00408	0.0134	0.0215
Nitrate (as N)	3	28	0.0291	0.0748	0.105
Nitrite (as N)	0.06	28	0.00318	0.0187	0.015
Phosphorus	0.03	28	0.017	0.033	0.033
Sulphate	218	26	1	1.05	1
Chloride	120	28	0.5	1.3	2
Dissolved Organic Carbon	-	28	17.9	22	24.8
Total Cyanide	-	20	0.00258	0.00388	0.005
Cyanide (WAD)	-	9	0.0005	0.00137	0.0013
Cyanide (Free)	0.005	13	0.0005	0.00145	0.0025
Aluminum	0.8	28	0.215	0.363	0.454
Aluminum (dissolved)	0.075	22	0.042	0.077	0.098
Antimony	0.02	28	0.000095	0.000338	0.00045
Arsenic	0.005	28	0.00215	0.00261	0.00301
Cadmium	0.0001	28	0.00000371	0.0000073	0.0000085
Chromium	0.0089	28	0.000685	0.000989	0.00129
Cobalt	0.00078	28	0.000168	0.000248	0.000299
Copper	0.005	28	0.000983	0.00123	0.00146
Iron	0.8	28	0.50	0.75	0.98
Lead	0.003	28	0.000139	0.000219	0.000273
Molybdenum	0.073	28	0.000298	0.000515	0.000601
Nickel	0.025	28	0.0009	0.00105	0.0012
Selenium	0.001	28	0.00008	0.000102	0.000131
Silver	0.0001	28	0.000014	0.0000199	0.000025
Strontium	2.5	28	0.0283	0.0373	0.046
Thallium	0.0003	24	0.0000025	0.00000571	0.00000763
Tungsten	0.03	28	0.00003	0.0000454	0.00005
Uranium	0.005	28	0.00017	0.000239	0.000285
Vanadium	0.12	28	0.000968	0.00127	0.0014
Zinc	0.02	28	0.0015	0.00351	0.00313
Zirconium	0.004	27	0.00092	0.000958	0.001
Mercury	0.000026	22	0.00000313	0.00000507	0.000005
Methylmercury (ng/L)	4	5	0.301	0.345	0.309
Ultra Low Mercury (ng/L)	26	5	2.69	3.84	3.35

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-3: Unnamed Watercourses Flowing to Dixie Creek, Baseline Water Quality

Parameter	WQG PAL	SW-02				SW-05				SW-06				SW-07			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	10	5.85	6.14	6.68	2	-	5.68	-	3	6.22	6.41	6.57	3	6.28	6.39	6.57
Lab pH (s.u.)	6.5 - 8.5	11	7.14	7.22	7.32	2	-	6.79	-	3	6.87	7.13	7.46	3	7.04	7.28	7.41
Lab Conductivity (µS/cm)	-	11	61.8	71.6	80	2	-	73	-	3	63.8	103	129	3	89.1	111	129
Total Alkalinity (as $CaCO_3$)	-	4	24.1	29.7	34.1	0	-	-	-	1	-	13.1	-	1	-	34.5	-
Total Hardness (as $CaCO_3$)	-	11	40.2	46.5	52.9	2	-	45.1	-	3	42.5	60.6	74.1	3	52.3	63.6	73.9
Total Dissolved Solids	-	11	106	126	156	2	-	135	-	3	126	142	157	3	135	137	139
Total Suspended Solids	-	11	5.1	11.2	16.7	2	-	10	-	3	3.5	22.9	32.9	3	4	4.7	5.55
Total Ammonia (as N)	1.8	2	-	0.0174	-	0	-	-	-	0	-	-	-	0	-	-	-
Nitrate (as N)	3	11	0.03	0.307	0.0511	2	-	0.03	-	3	0.0345	0.0447	0.052	3	0.0224	0.0582	0.08
Nitrite (as N)	0.06	11	0.015	0.0125	0.015	2	-	0.015	-	3	0.00775	0.0102	0.015	3	0.00775	0.0102	0.015
Phosphorus	0.03	11	0.0283	0.0401	0.0385	2	-	0.054	-	3	0.023	0.0417	0.0555	3	0.0178	0.0285	0.037
Sulphate	218	5	1	1.53	1	2	-	1	-	2	1.04	1.08	1.11	3	0.72	0.813	1
Chloride	120	11	2	2.2	2.49	2	-	3	-	3	2.12	2.41	3	3	1.19	1.79	2.5
Dissolved Organic Carbon	-	11	35.3	40.9	49	2	-	45.5	-	3	34	41	47.5	3	29.3	35.5	43.3
Total Cyanide	-	11	0.005	0.00427	0.005	2	-	0.005	-	3	0.0031	0.00373	0.005	3	0.00275	0.0035	0.005
Cyanide (WAD)	-	3	0.001	0.00233	0.00325	0	-	-	-	1	-	0.0014	-	1	-	0.0011	-
Cyanide (Free)	0.005	3	0.0008	0.00137	0.0018	0	-	-	-	1	-	0.0014	-	1	-	0.001	-
Aluminum	0.71	11	0.31	0.684	0.512	2	-	0.359	-	3	0.253	0.446	0.611	3	0.197	0.274	0.332
Aluminum (dissolved)	0.075	9	0.082	0.12	0.168	2	-	0.261	-	3	0.195	0.326	0.45	3	0.081	0.157	0.226
Antimony	0.02	11	0.00045	0.000402	0.00045	2	-	0.00045	-	3	0.000315	0.00036	0.00045	3	0.00025	0.000317	0.00045
Arsenic	0.005	11	0.00383	0.00511	0.0055	2	-	0.00755	-	3	0.0037	0.00396	0.00434	3	0.0022	0.003	0.0034
Cadmium	0.0001	11	0.00000775	0.0000116	0.0000135	2	-	0.0000175	-	3	0.0000105	0.000013	0.0000166	3	0.0000138	0.0000272	0.000038
Chromium	0.0089	11	0.000705	0.00142	0.00123	2	-	0.00137	-	3	0.00102	0.00129	0.00152	3	0.000625	0.000873	0.00107
Cobalt	0.00078	11	0.000239	0.000644	0.000459	2	-	0.00107	-	3	0.000195	0.000387	0.000514	3	0.000185	0.000323	0.000435
Copper	0.005	11	0.00105	0.00171	0.00188	2	-	0.0012	-	3	0.00145	0.00191	0.00251	3	0.0013	0.0015	0.0018
Iron	0.8	11	0.61	1.07	0.948	2	-	2.87	-	3	0.927	1.05	1.23	3	0.343	0.655	0.876
Lead	0.003	11	0.000195	0.000326	0.000308	2	-	0.00016	-	3	0.000065	0.000171	0.000227	3	0.0000425	0.000155	0.00022
Molybdenum	0.073	11	0.0000745	0.00011	0.00011	2	-	0.000415	-	3	0.000302	0.000464	0.00062	3	0.000199	0.000232	0.00027
Nickel	0.025	11	0.00125	0.00178	0.00182	2	-	0.00165	-	3	0.00175	0.00186	0.00205	3	0.00107	0.00171	0.00215
Selenium	0.001	11	0.0001	0.000111	0.000123	2	-	0.000165	-	3	0.000108	0.000132	0.000155	3	0.000065	0.000127	0.00016
Silver	0.0001	11	0.000025	0.0000214	0.000025	2	-	0.000025	-	3	0.000015	0.0000183	0.000025	3	0.000015	0.0000183	0.000025
Strontium	2.5	11	0.0274	0.0313	0.0334	2	-	0.0357	-	3	0.0324	0.0426	0.0491	3	0.0282	0.0353	0.0413
Thallium	0.0003	11	0.00000375	0.00000886	0.000006	2	-	0.00001	-	3	0.000007	0.00000867	0.0000095	3	0.000005	0.000006	0.0000065
Tungsten	0.03	11	0.00001	0.0000386	0.00005	2	-	0.00001	-	3	0.00001	0.0000233	0.00003	3	0.0000375	0.0000483	0.00006
Uranium	0.005	11	0.0000403	0.000064	0.00008	2	-	0.000135	-	3	0.000272	0.000371	0.000435	3	0.00007	0.0000883	0.000105
Vanadium	0.12	11	0.00114	0.002	0.00181	2	-	0.00176	-	3	0.00106	0.00157	0.00207	3	0.000695	0.00087	0.000975
Zinc	0.02	11	0.0015	0.00559	0.0075	2	-	0.0065	-	3	0.00305	0.00537	0.00705	3	0.0103	0.0208	0.0305
Zirconium	0.004	11	0.001	0.000994	0.001	2	-	0.001	-	3	0.001	0.00103	0.00105	3	0.000695	0.000797	0.001
Mercury	0.000026	11	0.000005	0.00000455	0.000005	2	-	0.0000075	-	3	0.0000075	0.00000853	0.0000103	3	0.0000055	0.000007	0.000008
Methylmercury (ng/L)	4	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Ultra Low Mercury (ng/L)	26	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-3: Unnamed Watercourses Flowing to Dixie Creek, Baseline Water Quality (*Continued*)

Parameter	WQG PAL	SW-08a				SW-10			
		Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	20	6.56	7.01	7.3	13	6.74	6.92	7.21
Lab pH (s.u.)	6.5 - 8.5	24	7.46	7.58	7.73	15	7.23	7.41	7.64
Lab Conductivity (µS/cm)	-	24	82.7	157	220	15	99.8	122	134
Total Alkalinity (as $CaCO_3$)	-	15	41.2	70.7	106	8	56.2	62.1	68.1
Total Hardness (as $CaCO_3$)	-	23	50.1	81.7	111	15	55.9	68.6	73.2
Total Dissolved Solids	-	24	80.3	150	191	15	90.2	115	137
Total Suspended Solids	-	24	6.38	19.2	28.6	15	3.38	9.79	9.5
Total Ammonia (as N)	1.8	8	0.0288	0.0367	0.037	4	0.0164	0.0217	0.0258
Nitrate (as N)	3	24	0.0209	0.079	0.0945	15	0.00893	0.0275	0.03
Nitrite (as N)	0.06	24	0.0005	0.00781	0.015	15	0.0005	0.00987	0.015
Phosphorus	0.03	24	0.0328	0.0524	0.0639	15	0.0216	0.0359	0.0391
Sulphate	218	23	1	5.69	7.63	11	0.67	0.815	1
Chloride	120	24	0.703	4.64	5.41	15	0.295	0.946	1.5
Dissolved Organic Carbon	-	24	19	27.3	33.6	15	21.9	27.6	33.5
Total Cyanide	-	21	0.0005	0.00209	0.005	14	0.001	0.003	0.005
Cyanide (WAD)	-	16	0.0005	0.00116	0.00138	8	0.0005	0.0013	0.00133
Cyanide (Free)	0.005	16	0.0005	0.000963	0.0016	8	0.0005	0.00104	0.00126
Aluminum	0.48	24	0.245	1.27	0.925	15	0.182	0.338	0.297
Aluminum (dissolved)	0.075	21	0.0455	0.197	0.201	13	0.063	0.09	0.109
Antimony	0.02	24	0.00005	0.00023	0.00045	15	0.00005	0.000285	0.00045
Arsenic	0.005	24	0.00304	0.00348	0.0043	15	0.00235	0.00286	0.0035
Cadmium	0.0001	24	0.00000795	0.0000277	0.0000169	15	0.0000025	0.00000898	0.0000089
Chromium	0.0089	24	0.000763	0.00267	0.00257	15	0.000585	0.00176	0.00123
Cobalt	0.00078	24	0.000238	0.000606	0.000568	15	0.000184	0.000289	0.000353
Copper	0.005	24	0.0011	0.00234	0.00224	15	0.000725	0.00105	0.00122
Iron	0.8	24	0.766	1.7	1.49	15	0.524	0.735	0.846
Lead	0.003	24	0.00012	0.000492	0.000464	15	0.00012	0.000188	0.00018
Molybdenum	0.073	24	0.000366	0.0014	0.000864	15	0.000433	0.000668	0.000658
Nickel	0.025	24	0.00129	0.00315	0.00308	15	0.00095	0.00153	0.00148
Selenium	0.001	24	0.000109	0.000271	0.000177	15	0.000103	0.000158	0.000171
Silver	0.0001	24	0.0000095	0.0000197	0.000025	15	0.000005	0.0000167	0.000025
Strontium	2.5	24	0.0301	0.0538	0.068	15	0.0323	0.0416	0.0457
Thallium	0.0003	21	0.000005	0.000753	0.000017	14	0.00000313	0.00000675	0.00000575
Tungsten	0.03	24	0.000135	0.000505	0.000618	15	0.00001	0.000053	0.00005
Uranium	0.005	24	0.000265	0.00116	0.000835	15	0.000127	0.000174	0.000192
Vanadium	0.12	24	0.00112	0.00312	0.00255	15	0.000763	0.00114	0.0012
Zinc	0.02	24	0.0015	0.00695	0.00813	15	0.0015	0.00299	0.004
Zirconium	0.004	24	0.000473	0.00131	0.001	15	0.000565	0.000805	0.001
Mercury	0.000026	21	0.0000025	0.00000532	0.000005	14	0.00000313	0.00000474	0.000005
Methylmercury (ng/L)	4	16	0.178	0.335	0.537	1	-	0.302	-
Ultra Low Mercury (ng/L)	26	17	2.94	5.83	7.15	1	-	3.31	-

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-4: Unnamed North Flowing Watercourses, Baseline Water Quality

Parameter	WQG PAL	SW-GL02				SW-17				SW-18				SW-TR			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	19	6.34	6.66	7.02	10	5.16	5.69	6.04	10	5.16	5.69	6.04	27	4.32	4.69	5.09
Lab pH (s.u.)	6.5 - 8.5	20	7	7.25	7.47	11	5.99	6.25	6.39	11	5.99	6.25	6.39	28	4.53	4.73	4.86
Lab Conductivity (µS/cm)	-	20	94	159	194	11	25.1	52.1	42.6	11	25.1	52.1	42.6	28	26.9	35.5	38.4
Total Alkalinity (as $CaCO_3$)	-	14	26.5	38.4	54.6	8	5.15	6.61	6.9	8	5.15	6.61	6.9	22	0.5	4.2	0.875
Total Hardness (as $CaCO_3$)	-	20	37.4	50.6	60.9	11	11.4	16.3	14	11	11.4	16.3	14	28	8.88	14.6	16.2
Total Dissolved Solids	-	20	100	127	141	11	56.7	78.1	88.5	11	56.7	78.1	88.5	28	75.5	106	135
Total Suspended Solids	-	20	1.08	4.48	5	11	1.85	6.43	7.45	11	1.85	6.43	7.45	28	1.85	81.7	66.2
Total Ammonia (as N)	1.8	2	0.0065	0.008	0.0095	1	0.005	0.005	0.005	1	0.005	0.005	0.005	10	0.0221	0.105	0.0768
Nitrate (as N)	3	20	0.0309	0.1	0.141	11	0.0025	0.0506	0.03	11	0.0025	0.0506	0.03	28	0.0025	0.0362	0.03
Nitrite (as N)	0.06	20	0.0005	0.00747	0.015	11	0.0005	0.00585	0.015	11	0.0005	0.00585	0.015	28	0.0005	0.00568	0.015
Phosphorus	0.03	20	0.009	0.025	0.034	11	0.042	0.056	0.068	11	0.042	0.056	0.068	27	0.018	0.085	0.096
Sulphate	218	18	1	1.87	2.3	11	0.15	0.986	1.28	11	0.15	0.986	1.28	27	0.15	0.642	1
Chloride	120	20	0.503	24.3	39	11	0.315	7.36	3.71	11	0.315	7.36	3.71	28	0.118	1.97	3
Dissolved Organic Carbon	-	20	6.88	19.6	29	11	28.7	31.2	36.6	11	28.7	31.2	36.6	28	44	57.9	67.3
Total Cyanide	-	19	0.0005	0.00278	0.005	10	0.000625	0.00209	0.00408	10	0.000625	0.00209	0.00408	28	0.0005	0.0029	0.005
Cyanide (WAD)	-	12	0.0005	0.00117	0.0014	7	0.0005	0.0008	0.00115	7	0.0005	0.0008	0.00115	20	0.0005	0.00129	0.0012
Cyanide (Free)	0.005	15	0.0005	0.00134	0.0022	8	0.0005	0.000913	0.00108	8	0.0005	0.000913	0.00108	23	0.0005	0.00132	0.00175
Aluminum	0.15	20	0.0329	0.137	0.205	11	0.376	0.493	0.633	11	0.376	0.493	0.633	28	0.52	1.29	1.12
Aluminum (dissolved)	0.075	18	0.0331	0.118	0.156	9	0.337	0.495	0.66	9	0.337	0.495	0.66	23	0.513	0.785	1.04
Antimony	0.02	20	0.00005	0.000245	0.00045	11	0.000115	0.000252	0.00045	11	0.000115	0.000252	0.00045	28	0.000185	0.000306	0.00045
Arsenic	0.005	20	0.00142	0.0025	0.00313	11	0.00338	0.00431	0.0056	11	0.00338	0.00431	0.0056	28	0.00622	0.00883	0.00926
Cadmium	0.0001	20	0.0000025	0.00000595	0.000007	11	0.00000755	0.0000111	0.0000125	11	0.00000755	0.0000111	0.0000125	28	0.0000161	0.0000329	0.0000368
Chromium	0.0089	20	0.000245	0.000665	0.000893	11	0.00137	0.00152	0.00164	11	0.00137	0.00152	0.00164	28	0.000838	0.00203	0.00184
Cobalt	0.00078	20	0.000193	0.000324	0.00047	11	0.00026	0.000521	0.000601	11	0.00026	0.000521	0.000601	28	0.000388	0.000653	0.000662
Copper	0.005	20	0.0003	0.000756	0.000955	11	0.00051	0.00079	0.00095	11	0.00051	0.00079	0.00095	28	0.000618	0.00215	0.00182
Iron	0.69	20	0.936	1.28	1.56	11	1.36	2.66	4.08	11	1.36	2.66	4.08	28	0.929	1.79	2.03
Lead	0.003	20	0.000025	0.0000677	0.000085	11	0.000078	0.000123	0.00015	11	0.000078	0.000123	0.00015	28	0.000403	0.00118	0.00104
Molybdenum	0.073	20	0.000222	0.000377	0.000483	11	0.0000595	0.000114	0.000108	11	0.0000595	0.000114	0.000108	28	0.0000638	0.000182	0.000183
Nickel	0.025	20	0.000288	0.000682	0.000813	11	0.00091	0.00108	0.0011	11	0.00091	0.00108	0.0011	28	0.000815	0.00169	0.0016
Selenium	0.001	20	0.0000503	0.0000778	0.0000963	11	0.00007	0.000102	0.000136	11	0.00007	0.000102	0.000136	28	0.000133	0.000238	0.000251
Silver	0.0001	20	0.000005	0.000014	0.000025	11	0.000005	0.0000123	0.000025	11	0.000005	0.0000123	0.000025	28	0.000005	0.0000134	0.000025
Strontium	2.5	20	0.0333	0.0428	0.0524	11	0.0152	0.0203	0.0192	11	0.0152	0.0203	0.0192	28	0.0126	0.0196	0.0211
Thallium	0.0003	20	0.0000025	0.0000044	0.000005	10	0.000005	0.00000585	0.000005	10	0.000005	0.00000585	0.000005	28	0.000005	0.0000149	0.0000145
Tungsten	0.03	20	0.0000375	0.000063	0.00005	11	0.00002	0.0000373	0.00005	11	0.00002	0.0000373	0.00005	28	0.0000475	0.0000461	0.00005
Uranium	0.005	20	0.000138	0.00017	0.000171	11	0.000047	0.0000751	0.000091	11	0.000047	0.0000751	0.000091	28	0.0000768	0.000213	0.00018
Vanadium	0.12	20	0.00025	0.000729	0.001	11	0.0019	0.00257	0.0031	11	0.0019	0.00257	0.0031	28	0.000745	0.00178	0.00165
Zinc	0.02	20	0.00138	0.00267	0.002	11	0.00225	0.00338	0.0046	11	0.00225	0.00338	0.0046	28	0.00498	0.00965	0.0107
Zirconium	0.004	19	0.000253	0.000608	0.001	10	0.00036	0.000595	0.00088	10	0.00036	0.000595	0.00088	28	0.00034	0.00063	0.001
Mercury	0.000026	20	0.0000025	0.00000502	0.000005	10	0.0000025	0.00000412	0.000005	10	0.0000025	0.00000412	0.000005	28	0.0000025	0.0000107	0.0000075
Methylmercury (ng/L)	4	4	0.144	0.16	0.174	4	0.3	0.329	0.356	4	0.3	0.329	0.356	20	0.197	0.879	1.24
Ultra Low Mercury (ng/L)	26	4	2.01	2.65	2.72	4	3.67	3.89	4.13	4	3.67	3.89	4.13	21	5.04	6.57	7.37

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-5: Waterbody 6 and Genessee Lake Tributaries, Baseline Water Quality (*Continued*)

Parameter	WQG PAL	SW-11				SW-12				SW-12b				SW-13			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	23	6.24	6.52	6.79	4	4.46	4.67	5.49	8	6.35	6.65	6.96	4	4.83	4.97	6.06
Lab pH (s.u.)	6.5 - 8.5	24	7.07	7.29	7.55	5	6.56	6.62	6.63	8	6.67	6.94	7.23	5	7.04	7.23	7.42
Lab Conductivity (µS/cm)	-	24	106	167	206	5	36	37.2	42	8	83	103	118	5	161	167	176
Total Alkalinity (as $CaCO_3$)	-	16	48	74	101	0	-	-	-	8	32.1	42.8	48.1	0	-	-	-
Total Hardness (as $CaCO_3$)	-	24	56.6	91.9	125	5	18.1	21	22.1	8	49.1	53.1	59.1	5	48.6	51	52.6
Total Dissolved Solids	-	24	165	185	211	5	60	77.4	103	8	83.4	119	142	5	134	134	143
Total Suspended Solids	-	24	4.95	39.2	21.7	5	9	12.2	11	8	2	14.8	18.7	5	1	16.6	3
Total Ammonia (as N)	1.8	7	0.0486	0.162	0.266	0	-	-	-	5	0.0214	0.751	1.85	0	-	-	-
Nitrate (as N)	3	24	0.0116	0.0806	0.03	5	0.03	1.7	0.08	8	0.0025	0.00648	0.00928	5	0.03	0.05	0.03
Nitrite (as N)	0.06	24	0.0005	0.00671	0.015	5	0.015	0.015	0.015	8	0.0005	0.00278	0.00278	5	0.015	0.015	0.015
Phosphorus	0.03	24	0.049	0.083	0.086	5	0.021	0.042	0.051	8	0.019	0.153	0.164	5	0.017	0.033	0.026
Sulphate	218	21	1	2.55	3.76	3	1	1	1	8	0.3	0.965	0.943	3	1	1	1
Chloride	120	24	2.76	6.74	8.79	5	0.5	1	1	8	0.285	2.15	3.39	5	33	34.8	36
Dissolved Organic Carbon	-	24	37.8	41.7	48.8	5	22	26.6	33	8	33.1	39.8	48.1	5	26	28.2	28
Total Cyanide	-	24	0.00145	0.00296	0.005	4	0.005	0.005	0.005	5	0.0015	0.00146	0.0017	4	0.005	0.005	0.005
Cyanide (WAD)	-	16	0.00139	0.00191	0.00181	0	-	-	-	8	0.00118	0.00124	0.0015	0	-	-	-
Cyanide (Free)	0.005	17	0.0014	0.00166	0.0018	0	-	-	-	8	0.000875	0.00113	0.00143	0	-	-	-
Aluminum	0.43	24	0.288	0.714	0.934	5	0.531	0.613	0.683	8	0.0917	0.177	0.259	5	0.14	0.167	0.21
Aluminum (dissolved)	0.075	19	0.162	0.273	0.392	4	0.343	0.421	0.448	8	0.0585	0.0911	0.122	4	0.0738	0.0978	0.118
Antimony	0.02	24	0.000148	0.000275	0.00045	5	0.00045	0.00045	0.00045	8	0.0000875	0.000103	0.000123	5	0.00045	0.00045	0.00045
Arsenic	0.005	24	0.00405	0.0076	0.00762	5	0.0045	0.00578	0.0061	8	0.00302	0.0035	0.00401	5	0.0042	0.00502	0.0046
Cadmium	0.0001	24	0.0000235	0.0000357	0.0000417	5	0.000021	0.000094	0.000027	8	6.33E-06	0.000011	0.0000126	5	0.000004	0.0000699	0.000018
Chromium	0.0089	24	0.00111	0.00176	0.00212	5	0.00123	0.00153	0.00165	8	0.000445	0.000696	0.00103	5	0.00053	0.000984	0.00114
Cobalt	0.00078	24	0.000906	0.00181	0.00223	5	0.00114	0.00182	0.00156	8	0.0000875	0.000339	0.000553	5	0.000269	0.000497	0.00057
Copper	0.005	24	0.00148	0.00235	0.00324	5	0.001	0.00106	0.0011	8	0.00064	0.00139	0.00194	5	0.0006	0.00068	0.0008
Iron	0.77	24	1.32	2.22	2.41	5	0.879	1.19	1.33	8	0.282	0.633	0.85	5	0.533	0.747	0.784
Lead	0.003	24	0.000181	0.000354	0.000365	5	0.00027	0.000366	0.00049	8	0.000087	0.000141	0.000165	5	0.000045	0.000064	0.0001
Molybdenum	0.073	24	0.000266	0.000466	0.000511	5	0.0002	0.000268	0.00034	8	0.000173	0.000201	0.000214	5	0.00021	0.000274	0.00037
Nickel	0.025	24	0.00289	0.00351	0.00382	5	0.0006	0.00082	0.0011	8	0.000965	0.00126	0.00173	5	0.0004	0.00072	0.0009
Selenium	0.001	24	0.00018	0.00025	0.00028	5	0.00015	0.00106	0.00018	8	0.00013	0.00014	0.00015	5	0.00010	0.00099	0.00015
Silver	0.0001	24	0.000005	0.0000147	0.000025	5	0.000025	0.000032	0.000025	8	0.000005	0.000006	0.000005	5	0.000025	0.000032	0.000025
Strontium	2.5	24	0.0398	0.0576	0.075	5	0.0202	0.0237	0.0256	8	0.0292	0.0348	0.0398	5	0.0372	0.0395	0.0418
Thallium	0.0003	24	0.000005	0.00000923	0.0000108	4	0.0000118	0.000014	0.0000153	8	0.000005	0.000005	0.000005	4	0.000006	0.00000825	0.0000103
Tungsten	0.03	24	0.00005	0.000134	0.000165	5	0.00002	0.000026	0.00003	8	0.00005	0.00005	0.00005	5	0.00001	0.00001	0.00001
Uranium	0.005	24	0.000152	0.000202	0.000217	5	0.000331	0.000381	0.000413	8	0.0000578	0.0000833	0.000113	5	0.000056	0.0000642	0.000075
Vanadium	0.12	24	0.00173	0.00268	0.00302	5	0.00139	0.00154	0.00177	8	0.00062	0.00086	0.00123	5	0.00064	0.000726	0.0008
Zinc	0.02	24	0.0015	0.0191	0.00718	5	0.003	0.0046	0.004	8	0.0015	0.0032	0.00433	5	0.002	0.0024	0.003
Zirconium	0.004	24	0.001	0.00124	0.00139	5	0.001	0.001	0.001	8	0.000255	0.000318	0.00042	5	0.001	0.001	0.001
Mercury	0.000026	24	0.000005	0.00000616	0.00000664	4	0.000005	0.0000125	0.000015	8	0.0000025	0.00000513	7.88E-06	4	0.000005	0.000005	0.000005
Methylmercury (ng/L)	4	7	0.77	1.01	1.29	0	-	-	-	1	-	0.21	-	0	-	-	-
Ultra Low Mercury (ng/L)	26	7	4.9	6.57	7.56	0	-	-	-	1	-	2.75	-	0	-	-	-

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-5: Waterbody 6 and Genessee Lake Tributaries, Baseline Water Quality (*Completed)*

Parameter	WQG PAL	SW-16				GL-Trib			
		Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	3	6.22	6.4	6.51	6	7.04	7.26	7.43
Lab pH (s.u.)	6.5 - 8.5	4	6.72	6.81	7.04	6	7.42	7.46	7.51
Lab Conductivity (µS/cm)	-	4	189	247	340	6	67.9	73.6	79.1
Total Alkalinity (as $CaCO_3$)	-	2	28.5	29	29.5	6	31.5	34.4	37.3
Total Hardness (as $CaCO_3$)	-	4	43	48	62.3	6	37.4	39	40.4
Total Dissolved Solids	-	4	201	207	272	6	64.8	70.3	73.7
Total Suspended Solids	-	4	1.75	4	4.75	6	5.78	8.93	11.9
Total Ammonia (as N)	1.8	0	-	-	-	3	0.0064	0.00993	0.0124
Nitrate (as N)	3	4	0.03	0.118	0.178	6	0.0025	0.0103	0.0186
Nitrite (as N)	0.06	4	0.015	0.0363	0.0363	6	0.0005	0.00075	0.0005
Phosphorus	0.03	4	0.022	0.025	0.026	6	0.031	0.038	0.044
Sulphate	218	2	-	1	-	6	0.513	0.623	0.688
Chloride	120	4	52.5	72.8	89.3	6	0.205	0.228	0.24
Dissolved Organic Carbon	-	4	26.3	29.8	36.5	6	18.7	20.2	22.1
Total Cyanide	-	3	0.005	0.005	0.005	6	0.0005	0.00107	0.00163
Cyanide (WAD)	-	1	-	0.005	-	6	0.0005	0.000667	0.0005
Cyanide (Free)	0.005	2	-	0.0025	-	6	0.0005	0.000633	0.0005
Aluminum	0.43	4	0.149	0.163	0.167	6	0.0744	0.13	0.147
Aluminum (dissolved)	0.075	1	0.152	0.152	0.152	6	0.0376	0.0527	0.064
Antimony	0.02	4	0.00045	0.00045	0.00045	6	0.00005	0.00005	0.00005
Arsenic	0.005	4	0.004	0.00483	0.00588	6	0.00182	0.0025	0.00314
Cadmium	0.0001	4	0.0000055	0.0000065	0.000008	6	0.0000055	0.00000598	0.00000688
Chromium	0.0089	4	0.00074	0.00112	0.00137	6	0.000275	0.00042	0.00047
Cobalt	0.00078	4	0.000394	0.000448	0.000475	6	0.000115	0.000137	0.00014
Copper	0.005	4	0.000575	0.00075	0.000875	6	0.000723	0.000852	0.000958
Iron	0.77	4	0.621	0.627	0.727	6	0.31	0.401	0.466
Lead	0.003	4	0.000101	0.000124	0.000158	6	0.0000865	0.00011	0.000114
Molybdenum	0.073	4	0.000168	0.000178	0.00021	6	0.000154	0.000193	0.000206
Nickel	0.025	4	0.000675	0.0008	0.000875	6	0.00058	0.00066	0.000715
Selenium	0.001	4	0.00005	0.00011	0.00018	6	0.00009	0.00011	0.00012
Silver	0.0001	4	0.000025	0.000025	0.000025	6	0.000005	0.000005	0.000005
Strontium	2.5	4	0.0364	0.0391	0.0486	6	0.0234	0.0245	0.0255
Thallium	0.0003	3	0.00000525	0.0000065	0.0000085	6	0.000005	0.000005	0.000005
Tungsten	0.03	4	0.00001	0.0000325	0.0000425	6	0.00005	0.00005	0.00005
Uranium	0.005	4	0.0000633	0.000073	0.0000843	6	0.000143	0.000169	0.000179
Vanadium	0.12	4	0.00026	0.000425	0.00047	6	0.000718	0.000858	0.001
Zinc	0.02	4	0.00325	0.029	0.030	6	0.0015	0.0015	0.0015
Zirconium	0.004	4	0.001	0.001	0.001	6	0.000125	0.000222	0.000308
Mercury	0.000026	3	0.000005	0.000005	0.000005	6	0.0000025	0.0000025	0.0000025
Methylmercury (ng/L)	4	2	-	0.704	-	1	-	0.105	-
Ultra Low Mercury (ng/L)	26	2	-	5.58	-	1	-	1.45	-

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-6: Project Area Waterbodies, Baseline Water Quality (*Continued*)

Parameter	WQG PAL	Dixie Lake (DL-Ref)				Dixie Lake (DC-US)				Genessee Lake (SW-GL)				Genessee Lake (SW-GL Bottom)			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	7	7.3	7.34	7.68	13	6.93	7.16	7.51	27	7.21	7.46	7.79	16	6.53	6.85	7.14
Lab pH (s.u.)	6.5 - 8.5	7	7.37	7.4	7.58	22	7.17	7.34	7.54	28	7.5	7.52	7.63	16	7.16	7.36	7.56
Lab Conductivity (µS/cm)	-	7	66.6	75.9	81.7	22	60.3	75.8	85.8	28	63.6	67.9	69.9	16	68.4	73.6	79
Total Alkalinity (as $CaCO_3$)	-	7	30.5	35.1	38.5	10	31.3	38.4	51.5	23	31.7	34	34.9	16	32.7	34.9	37.3
Total Hardness (as $CaCO_3$)	-	7	36.5	39.3	40.6	21	34.5	41.7	46.3	28	31.9	33.6	36.1	16	33.6	35.5	37.7
Total Dissolved Solids	-	7	66.6	74.4	78.2	22	66.8	77.7	88.3	28	46	51.7	58.2	16	45.1	54	61.8
Total Suspended Solids	-	7	3.5	5.54	7.3	21	2	5.22	7	28	1.08	2.08	3.04	16	1.63	17	6.6
Total Ammonia (as N)	1.8	3	0.0065	0.017	0.023	4	0.0125	0.03	0.05	9	0.0125	0.0162	0.0193	7	0.0119	0.0258	0.0375
Nitrate (as N)	3	7	0.0059	0.0247	0.024	22	0.03	0.0982	0.118	28	0.0025	0.0159	0.03	16	0.0025	0.0605	0.0445
Nitrite (as N)	0.06	7	0.0005	0.000657	0.0005	22	0.00413	0.0135	0.015	28	0.0005	0.00591	0.015	16	0.0005	0.00214	0.0005
Phosphorus	0.02	7	0.032	0.040	0.046	21	0.021	0.033	0.038	27	0.012	0.020	0.020	16	0.020	0.045	0.036
Sulphate	218	7	0.568	0.69	0.74	21	0.86	1.11	1	28	0.6	0.948	1	16	0.535	0.572	0.653
Chloride	120	7	0.18	0.281	0.365	22	0.5	0.743	0.52	28	0.19	0.431	0.5	16	0.198	0.349	0.22
Dissolved Organic Carbon	-	7	19.9	21.7	24	21	16	17	20.7	28	10	11	11.4	16	10.2	10.8	11.5
Total Cyanide	-	6	0.0005	0.000583	0.0005	13	0.0012	0.00371	0.005	28	0.0005	0.00169	0.00245	16	0.0005	0.000581	0.0005
Cyanide (WAD)	-	7	0.0005	0.000571	0.0005	9	0.0005	0.00206	0.005	22	0.0005	0.00075	0.0005	16	0.0005	0.000594	0.0005
Cyanide (Free)	0.005	7	0.0005	0.000571	0.0005	11	0.0005	0.00141	0.0025	23	0.0005	0.000735	0.0005	16	0.0005	0.00055	0.0005
Aluminum	0.69	7	0.118	0.166	0.209	22	0.111	0.161	0.207	28	0.00878	0.0139	0.016	16	0.00973	0.0178	0.0174
Aluminum (dissolved)	0.075	7	0.044	0.0705	0.0892	15	0.0383	0.0514	0.0615	25	0.0027	0.00656	0.0068	16	0.00243	0.00528	0.00655
Antimony	0.02	7	0.00005	0.0000571	0.00005	22	0.00015	0.000341	0.00045	28	0.00005	0.000175	0.00045	16	0.00005	0.0000619	0.00005
Arsenic	0.005	7	0.00175	0.00275	0.00358	22	0.00171	0.00258	0.00283	28	0.0017	0.002	0.00209	16	0.00223	0.00493	0.00349
Cadmium	0.0001	7	0.0000025	0.00000368	0.00000473	22	0.000004	0.0000278	0.000009	28	0.0000025	0.0000178	0.0000025	16	0.0000025	0.00000234	0.0000025
Chromium	0.0089	7	0.000355	0.000461	0.00057	22	0.000383	0.000652	0.000725	28	0.000133	0.000272	0.00025	16	0.000108	0.000182	0.00025
Cobalt	0.00078	7	0.000135	0.000211	0.00019	22	0.000122	0.000174	0.00019	28	0.00005	0.0000605	0.00005	16	0.00005	0.0000763	0.000065
Copper	0.005	7	0.000825	0.00088	0.00092	22	0.00082	0.00111	0.0012	28	0.00025	0.000316	0.0003	16	0.00025	0.00025	0.00025
Iron	0.8	7	0.482	0.584	0.566	22	0.393	0.489	0.593	28	0.0863	0.151	0.183	16	0.227	0.933	0.797
Lead	0.003	7	0.000104	0.000132	0.000159	22	0.000122	0.000179	0.00022	28	0.000025	0.0000341	0.000045	16	0.000025	0.0000379	0.000025
Molybdenum	0.073	7	0.000194	0.000206	0.00023	22	0.000203	0.000313	0.000278	28	0.0000985	0.000125	0.000126	16	0.000106	0.000114	0.00012
Nickel	0.025	7	0.000633	0.000689	0.00076	21	0.00066	0.000917	0.0008	28	0.00025	0.000254	0.00025	16	0.00025	0.00025	0.00025
Selenium	0.001	7	0.000118	0.000134	0.000138	22	0.0000825	0.000328	0.00015	28	0.0000536	0.000249	0.0000833	16	0.0000548	0.000076	0.0000925
Silver	0.0001	7	0.000005	0.000005	0.000005	22	0.00001	0.0000216	0.000025	28	0.000005	0.0000116	0.00001	16	0.000005	0.00000469	0.000005
Strontium	2.5	7	0.0235	0.0255	0.0263	22	0.0234	0.0276	0.0319	28	0.0208	0.0223	0.0243	16	0.0215	0.0231	0.0242
Thallium	0.0003	7	0.000005	0.000005	0.000005	17	0.0000025	0.00000462	0.000005	28	0.000005	0.00000457	0.000005	16	0.000005	0.00000469	0.000005
Tungsten	0.03	7	0.00005	0.00005	0.00005	22	0.00001	0.0000241	4.75E-05	28	0.00005	0.0000454	0.00005	16	0.00005	0.00005	0.00005
Uranium	0.005	7	0.000195	0.000228	0.000245	22	0.000161	0.000203	0.000246	28	0.000036	0.0000391	0.0000403	16	0.0000358	0.0000431	0.0000453
Vanadium	0.12	7	0.00088	0.000976	0.00111	22	0.000695	0.000855	0.000995	28	0.00025	0.000234	0.00025	16	0.00025	0.000279	0.00025
Zinc	0.02	7	0.0015	0.00173	0.0015	22	0.001	0.00223	0.00275	28	0.0015	0.00218	0.0015	16	0.0015	0.0015	0.0015
Zirconium	0.004	7	0.000265	0.000281	0.00034	22	0.000468	0.000787	0.001	28	0.0001	0.000336	0.00055	16	0.0001	0.0001	0.0001
Mercury	0.000026	7	0.0000025	0.0000025	0.0000025	16	0.0000025	0.000039	0.000005	28	0.0000025	0.00000313	3.13E-06	16	0.0000025	0.00000234	0.0000025
Methylmercury (ng/L)	4	7	0.063	0.0881	0.111	1	-	0.043	-	19	0.0175	0.0264	0.029	3	0.0305	0.239	0.345
Ultra Low Mercury (ng/L)	26	7	1.76	2.42	2.55	1	-	1.36	-	19	0.465	0.678	0.84	3	0.585	0.97	1.17

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-6: Project Area Waterbodies Baseline Water Quality (*Completed)*

Parameter	WQG PAL	Unnamed Waterbody 1 (SW-01)				Unnamed Waterbody 6 (SW-14)				Unnamed Waterbody 6 (SW-14 Bottom)			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	31	5.63	6.11	6.54	15	6.8	7.14	7.6	7	6.97	7.3	7.78
Lab pH (s.u.)	6.5 - 8.5	35	6.44	6.56	6.7	22	7.18	7.39	7.6	7	7.51	7.53	7.66
Lab Conductivity (µS/cm)	-	35	35.8	48.6	49.4	22	85.5	102	115	7	88.4	98.9	101
Total Alkalinity (as $CaCO_3$)	-	25	10.2	16.4	17	10	35.5	57.1	60.2	7	34.4	39.8	41.7
Total Hardness (as $CaCO_3$)	-	35	21.4	29.8	30.7	21	39.2	50.5	57	7	40.9	78.1	56.9
Total Dissolved Solids	-	35	77	101	107	22	78.4	92.8	109	7	79.5	88.3	92.6
Total Suspended Solids	-	35	2.08	10.1	8.5	22	2.23	5.31	4.95	7	1.65	4.93	5.55
Total Ammonia (as N)	1.8	9	0.0133	0.026	0.024	3	0.0157	0.0205	0.0282	3	0.00375	0.0085	0.0115
Nitrate (as N)	3	35	0.0025	0.0312	0.03	22	0.0132	0.0344	0.03	7	0.0025	0.0068	0.00805
Nitrite (as N)	0.06	35	0.0005	0.00694	0.015	22	0.0005	0.0124	0.015	7	0.0005	0.0005	0.0005
Phosphorus	0.02	35	0.019	0.038	0.037	22	0.014	0.028	0.032	7	0.021	0.033	0.031
Sulphate	218	30	0.325	0.954	1	22	0.625	0.845	1	7	0.45	0.503	0.575
Chloride	120	35	0.12	1.3	2	22	4	5.88	7	7	3.92	4.43	5
Dissolved Organic Carbon	-	35	35.7	44.5	50.9	22	18	20.8	24.7	7	20.8	21.8	23.2
Total Cyanide	-	31	0.0013	0.00289	0.005	17	0.0005	0.00319	0.005	7	0.0005	0.000643	0.0005
Cyanide (WAD)	-	22	0.00106	0.00164	0.00183	10	0.0005	0.00185	0.00388	7	0.0005	0.000657	0.0005
Cyanide (Free)	0.005	24	0.00101	0.00144	0.00181	11	0.0005	0.00129	0.0025	7	0.0005	0.000714	0.0008
Aluminum	0.69	35	0.282	0.459	0.432	22	0.0364	0.064	0.0722	7	0.0334	0.0457	0.0531
Aluminum (dissolved)	0.075	32	0.232	0.314	0.396	15	0.0187	0.0263	0.0352	7	0.0196	0.0242	0.0248
Antimony	0.02	35	0.000163	0.000292	0.00045	22	0.00007	0.000326	0.00045	7	0.00005	0.0000586	0.00005
Arsenic	0.005	35	0.00448	0.00683	0.0058	22	0.0019	0.00293	0.00352	7	0.00203	0.00371	0.00313
Cadmium	0.0001	35	6.68E-06	0.0000123	0.0000145	22	0.0000015	0.0000232	5.05E-06	7	0.0000025	0.00000304	0.0000025
Chromium	0.0089	35	0.000658	0.00111	0.00103	22	0.00025	0.00044	0.00053	7	0.00025	0.000263	0.00025
Cobalt	0.00078	35	0.000173	0.000499	0.000508	22	0.000044	0.0000765	0.0000678	7	0.00005	0.0000871	0.00005
Copper	0.005	35	0.000605	0.00096	0.000955	22	0.000425	0.000547	0.000665	7	0.00025	0.000704	0.00056
Iron	0.8	35	0.559	1.62	1.17	22	0.118	0.314	0.312	7	0.0865	0.113	0.137
Lead	0.003	35	0.000143	0.000293	0.000272	22	0.000045	0.0000893	0.000109	7	0.0000565	0.000106	0.000106
Molybdenum	0.073	35	0.000076	0.000114	0.000134	22	0.000156	0.000223	0.00022	7	0.00016	0.000649	0.000209
Nickel	0.025	35	0.00078	0.00108	0.00105	22	0.00025	0.000469	0.000585	7	0.00025	0.000371	0.00052
Selenium	0.001	35	0.000116	0.00018	0.000175	22	0.00009	0.000337	0.000137	7	0.000072	0.0000929	0.00011
Silver	0.0001	35	0.000005	0.0000136	0.000025	22	0.000005	0.0000207	0.000025	7	0.000005	0.000005	0.000005
Strontium	2.5	35	0.018	0.0232	0.023	22	0.0254	0.0332	0.037	7	0.0269	0.075	0.0385
Thallium	0.0003	33	0.000005	0.0000068	0.000006	19	0.0000025	0.00000429	0.000005	7	0.000005	0.00000871	0.000005
Tungsten	0.03	35	0.00003	0.000054	0.00005	22	0.00001	0.00003	0.00005	7	0.00005	0.00005	0.00005
Uranium	0.005	35	0.0000625	0.0000881	0.0000933	22	0.0000453	0.0000632	0.0000798	7	0.000045	0.000563	0.000059
Vanadium	0.12	35	0.00069	0.00111	0.0011	22	0.00025	0.000388	0.000445	7	0.00025	0.00025	0.00025
Zinc	0.02	35	0.0015	0.00492	0.0055	22	0.00113	0.00361	0.003	7	0.0015	0.0023	0.0015
Zirconium	0.004	35	0.00037	0.000657	0.001	22	0.0001	0.000714	0.001	7	0.0001	0.0001	0.0001
Mercury	0.000026	32	0.0000025	0.00000516	0.00000518	17	0.0000025	0.00000485	0.000005	7	0.0000025	0.0000025	0.0000025
Methylmercury (ng/L)	4	5	0.274	0.284	0.299	10	0.0295	0.0491	0.0653	1	-	0.027	-
Ultra Low Mercury (ng/L)	26	6	4.56	5.67	6.24	10	1.92	2.52	2.68	1	-	2.09	-

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-7: Gullrock Lake, Baseline Water Quality

Parameter	WQG PAL	GRL-01				GRL-01 (Bottom)				GRL-02				GRL-02 (Bottom)				GRL-03				GRL-03 (Bottom)			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	1	-	7.75	-	1	-	6.69	-	1	-	6.89	-	1	-	6.78	-	1	-	7.31	-	1	-	5.98	-
Lab pH (s.u.)	6.5 - 8.5	1	-	7.53	-	1	-	7.53	-	1	-	7.52	-	1	-	7.53	-	1	-	7.53	-	1	-	7.56	-
Lab Conductivity (µS/cm)	-	1	-	86.8	-	1	-	86	-	1	-	96.4	-	1	-	97	-	1	-	85.9	-	1	-	87.8	-
Total Alkalinity (as $CaCO_3$)	-	1	-	27.9	-	1	-	27.8	-	1	-	29.2	-	1	-	29	-	1	-	27.2	-	1	-	28.5	-
Total Hardness (as $CaCO_3$)	-	1	-	37.2	-	1	-	37.1	-	1	-	38	-	1	-	38.2	-	1	-	35.7	-	1	-	37	-
Total Dissolved Solids	-	1	-	66.8	-	1	-	68.1	-	1	-	73.5	-	1	-	64.5	-	1	-	71.5	-	1	-	68.1	-
Total Suspended Solids	-	1	-	3.5	-	1	-	3.3	-	1	-	2.3	-	1	-	2.9	-	1	-	2.1	-	1	-	1.5	-
Total Ammonia (as N)	1.8	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Nitrate (as N)	3	1	-	0.0025	-	1	-	0.0025	-	1	-	0.0053	-	1	-	0.0025	-	1	-	0.0289	-	1	-	0.0293	-
Nitrite (as N)	0.06	1	-	0.0005	-	1	-	0.0011	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0019	-	1	-	0.0011	-
Phosphorus	0.02	1	-	0.027	-	1	-	0.029	-	1	-	0.028	-	1	-	0.028	-	1	-	0.033	-	1	-	0.032	-
Sulphate	218	1	-	6.52	-	1	-	6.49	-	1	-	5.68	-	1	-	5.64	-	1	-	6.92	-	1	-	7	-
Chloride	120	1	-	2.93	-	1	-	2.93	-	1	-	5.96	-	1	-	6.01	-	1	-	2.98	-	1	-	3	-
Dissolved Organic Carbon	-	1	-	11.4	-	1	-	11.2	-	1	-	12.4	-	1	-	12.3	-	1	-	11.6	-	1	-	11.3	-
Total Cyanide	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-
Cyanide (WAD)	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-
Cyanide (Free)	0.005	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-	1	-	0.0005	-
Aluminum	0.68	1	-	0.0701	-	1	-	0.0599	-	1	-	0.0502	-	1	-	0.0542	-	1	-	0.0481	-	1	-	0.0566	-
Aluminum (dissolved)	0.075	1	-	0.0055	-	1	-	0.0086	-	1	-	0.006	-	1	-	0.007	-	1	-	0.004	-	1	-	0.0082	-
Antimony	0.02	1	-	0.0003	-	1	-	0.00031	-	1	-	0.00029	-	1	-	0.00028	-	1	-	0.00028	-	1	-	0.00028	-
Arsenic	0.005	1	-	0.0105	-	1	-	0.0104	-	1	-	0.008	-	1	-	0.00801	-	1	-	0.011	-	1	-	0.0112	-
Cadmium	0.0001	1	-	0.000003	-	1	-	0.000003	-	1	-	0.000003	-	1	-	0.000003	-	1	-	0.000003	-	1	-	0.000003	-
Chromium	0.0089	1	-	0.0002	-	1	-	0.00022	-	1	-	0.00019	-	1	-	0.00017	-	1	-	0.00016	-	1	-	0.00023	-
Cobalt	0.00078	1	-	0.00005	-	1	-	0.00005	-	1	-	0.00005	-	1	-	0.00005	-	1	-	0.00005	-	1	-	0.00005	-
Copper	0.005	1	-	0.00138	-	1	-	0.00138	-	1	-	0.00108	-	1	-	0.00109	-	1	-	0.00128	-	1	-	0.00126	-
Iron	0.8	1	-	0.103	-	1	-	0.091	-	1	-	0.111	-	1	-	0.119	-	1	-	0.078	-	1	-	0.091	-
Lead	0.003	1	-	0.000059	-	1	-	0.000064	-	1	-	0.000025	-	1	-	0.000025	-	1	-	0.000025	-	1	-	0.00005	-
Molybdenum	0.073	1	-	0.000188	-	1	-	0.000182	-	1	-	0.000192	-	1	-	0.000189	-	1	-	0.000186	-	1	-	0.0002	-
Nickel	0.025	1	-	0.00131	-	1	-	0.00136	-	1	-	0.00102	-	1	-	0.00104	-	1	-	0.00123	-	1	-	0.00124	-
Selenium	0.001	1	-	0.000082	-	1	-	0.000057	-	1	-	0.000025	-	1	-	0.000141	-	1	-	0.000138	-	1	-	0.000107	-
Silver	0.0001	1	-	0.000005	-	1	-	0.000005	-	1	-	0.000005	-	1	-	0.000005	-	1	-	0.000005	-	1	-	0.000005	-
Strontium	2.5	1	-	0.0294	-	1	-	0.0317	-	1	-	0.031	-	1	-	0.0292	-	1	-	0.0295	-	1	-	0.0297	-
Thallium	0.0003	1	-	0.000005	-	1	-	0.000005	-	1	-	0.000005	-	1	-	0.000005	-	1	-	0.000005	-	1	-	0.000005	-
Tungsten	0.03	1	-	0.00005	-	1	-	0.00005	-	1	-	0.00005	-	1	-	0.00005	-	1	-	0.00005	-	1	-	0.00005	-
Uranium	0.005	1	-	0.000074	-	1	-	0.000073	-	1	-	0.000086	-	1	-	0.000085	-	1	-	0.00006	-	1	-	0.000056	-
Vanadium	0.12	1	-	0.00057	-	1	-	0.00054	-	1	-	0.00025	-	1	-	0.00025	-	1	-	0.00025	-	1	-	0.00025	-
Zinc	0.02	1	-	0.0015	-	1	-	0.0015	-	1	-	0.0015	-	1	-	0.0015	-	1	-	0.0015	-	1	-	0.0015	-
Zirconium	0.004	1	-	0.0001	-	1	-	0.0001	-	1	-	0.0001	-	1	-	0.0001	-	1	-	0.0001	-	1	-	0.0001	-
Mercury	0.000026	1	-	0.0000025	-	1	-	0.0000025	-	1	-	0.0000025	-	1	-	0.0000025	-	1	-	0.0000025	-	1	-	0.0000025	-
Methylmercury (ng/L)	4	1	-	0.02	-	1	-	0.016	-	1	-	0.031	-	1	-	0.03	-	1	-	0.026	-	1	-	0.03	-
Ultra Low Mercury (ng/L)	26	1	-	0.59	-	1	-	0.59	-	1	-	0.58	-	1	-	0.56	-	1	-	0.6	-	1	-	0.57	-

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-8: Pakwash Lake, Baseline Water Quality *(Continued)*

Parameter	WQG PAL	PL-01				PL-01 (Bottom)				PL-02				PL-02 (Bottom)			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	8	7.08	7.31	7.62	3	6.41	6.54	6.62	8	7.35	7.49	7.65	3	6.76	6.85	6.93
Lab pH (s.u.)	6.5 - 8.5	8	7.43	7.47	7.58	3	7.55	7.57	7.6	8	7.59	7.63	7.69	3	7.64	7.66	7.69
Lab Conductivity (µS/cm)	-	8	87.7	90.5	94.7	3	88.1	92	94.6	8	85.5	89.5	91.1	3	89.5	91.4	94.1
Total Alkalinity (as $CaCO_3$)	-	8	31	33.7	36.6	3	33.2	34.8	36.2	8	38.3	39.6	40.6	3	39.4	41.1	43.4
Total Hardness (as $CaCO_3$)	-	8	39.7	41.8	44.2	3	40.6	42.8	44.6	8	42.8	44.1	45.8	3	46.4	47.8	49.4
Total Dissolved Solids	-	8	65.3	71.2	78.1	3	74.8	79.4	85.1	8	63.8	72.9	84	3	73.9	77.9	83.5
Total Suspended Solids	-	8	4.33	5.34	5.9	3	6.4	15.7	20.4	8	3.65	5.84	6.83	3	8.05	31.7	44.4
Total Ammonia (as N)	1.8	3	0.0075	0.014	0.0185	0	-	-	-	3	0.0097	0.0128	0.0165	0	-	-	-
Nitrate (as N)	3	8	0.0025	0.0257	0.0296	3	0.0107	0.0173	0.0207	8	0.0025	0.0222	0.0375	3	0.0162	0.0196	0.0252
Nitrite (as N)	0.06	8	0.0005	0.000638	0.0005	3	0.0005	0.0014	0.00185	8	0.0005	0.000588	0.0005	3	0.0005	0.000733	0.00085
Phosphorus	0.02	8	0.021	0.023	0.025	3	0.024	0.030	0.033	8	0.022	0.026	0.030	3	0.023	0.029	0.033
Sulphate	218	8	4.25	4.97	5.8	3	4.66	5.04	5.53	8	1.8	2.36	2.44	3	1.96	2.39	2.64
Chloride	120	8	2.45	2.55	2.76	3	2.28	2.46	2.78	8	0.475	0.896	0.91	3	0.46	0.743	0.895
Dissolved Organic Carbon	-	8	13.7	14.4	15.4	3	14.5	14.7	15.1	8	12.2	14.2	15.8	3	15	15.5	16
Total Cyanide	-	8	0.0005	0.000575	0.0005	3	0.0005	0.000733	0.00085	8	0.0005	0.0007	0.0007	3	0.0005	0.000733	0.00085
Cyanide (WAD)	-	8	0.0005	0.0006	0.0005	3	0.0005	0.000767	0.0009	8	0.0005	0.000613	0.0005	3	0.0005	0.000767	0.0009
Cyanide (Free)	0.005	8	0.0005	0.000613	0.0005	3	0.0005	0.000767	0.0009	8	0.0005	0.000638	0.0005	3	0.0005	0.0008	0.00095
Aluminum	1.0	8	0.133	0.187	0.204	3	0.166	0.188	0.219	8	0.161	0.262	0.347	3	0.242	0.394	0.49
Aluminum (dissolved)	0.075	8	0.0211	0.0287	0.0322	3	0.0196	0.0225	0.0242	8	0.0266	0.0408	0.0514	3	0.0297	0.0406	0.0478
Antimony	0.02	8	0.00024	0.000263	0.000275	3	0.00021	0.000233	0.00026	8	0.00005	0.0000913	0.000113	3	0.00005	0.0000767	0.00009
Arsenic	0.005	8	0.00657	0.00792	0.00896	3	0.00702	0.0076	0.00806	8	0.00131	0.00248	0.00291	3	0.00145	0.00236	0.00286
Cadmium	0.0001	8	0.0000025	4.25E-06	0.00000548	3	0.0000041	0.00000577	0.0000074	8	0.0000025	0.00000439	0.0000065	3	0.00000545	0.00000917	0.0000125
Chromium	0.0089	8	0.000345	0.00053	0.000673	3	0.00041	0.000447	0.000505	8	0.000398	0.000574	0.000608	3	0.00061	0.000933	0.00111
Cobalt	0.00078	8	0.00012	0.000148	0.000153	3	0.000145	0.000157	0.000175	8	0.00005	0.000115	0.000143	3	0.000095	0.000227	0.000315
Copper	0.005	8	0.00139	0.0015	0.00158	3	0.00142	0.00144	0.00149	8	0.00123	0.00132	0.00138	3	0.0013	0.00153	0.00172
Iron	0.8	8	0.196	0.266	0.285	3	0.269	0.286	0.316	8	0.21	0.285	0.306	3	0.319	0.538	0.675
Lead	0.003	8	0.0000884	0.000117	0.00013	3	0.000107	0.000124	0.000133	8	0.000077	0.00012	0.000145	3	0.000115	0.000245	0.000326
Molybdenum	0.073	8	0.000191	0.000224	0.000262	3	0.000198	0.000224	0.000239	8	0.000203	0.000222	0.000237	3	0.00018	0.000197	0.000226
Nickel	0.025	8	0.00131	0.00141	0.00145	3	0.00134	0.00136	0.00139	8	0.000658	0.000799	0.00099	3	0.000705	0.00111	0.00132
Selenium	0.001	8	0.000081	0.0000929	0.000112	3	0.0000555	0.000075	0.0001	8	0.0000678	0.000112	0.0000963	3	0.0000515	0.000101	0.000139
Silver	0.0001	8	0.000005	0.000005	0.000005	3	0.000005	0.000005	0.000005	8	0.000005	0.000005	0.000005	3	0.000005	0.000005	0.000005
Strontium	2.5	8	0.0288	0.0298	0.031	3	0.0295	0.0302	0.0318	8	0.0239	0.0257	0.0265	3	0.0259	0.0264	0.0272
Thallium	0.0003	8	0.000005	0.000005	0.000005	3	0.000005	0.000005	0.000005	8	0.000005	0.000005	0.000005	3	0.000005	0.00000733	0.0000085
Tungsten	0.03	8	0.00005	0.00005	0.00005	3	0.00005	0.00005	0.00005	8	0.00005	0.00005	0.00005	3	0.00005	0.00005	0.00005
Uranium	0.005	8	0.000109	0.000123	0.000137	3	0.00011	0.000124	0.000133	8	0.0000915	0.000108	0.000117	3	0.000118	0.000133	0.000148
Vanadium	0.12	8	0.00068	0.000808	0.000815	3	0.000805	0.00085	0.000905	8	0.00075	0.000863	0.00102	3	0.000905	0.00124	0.00146
Zinc	0.02	8	0.0015	0.00161	0.0015	3	0.0015	0.0015	0.0015	8	0.0015	0.0015	0.0015	3	0.0015	0.00223	0.0026
Zirconium	0.004	8	0.0001	0.000203	0.00023	3	0.000255	0.000277	0.00031	8	0.000183	0.000226	0.000283	3	0.000305	0.000343	0.00038
Mercury	0.000026	8	0.0000025	0.0000025	0.0000025	3	0.0000025	0.0000025	0.0000025	8	0.0000025	0.0000025	0.0000025	3	0.0000025	0.0000025	0.0000025
Methylmercury (ng/L)	4	8	0.0475	0.0527	0.0539	3	0.046	0.0793	0.0965	8	0.033	0.0438	0.0538	3	0.0615	0.0627	0.0645
Ultra Low Mercury (ng/L)	26	8	0.828	1.23	1.5	3	1.04	1.25	1.38	8	0.873	1.57	1.84	3	2.4	3.25	3.73

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-8: Pakwash Lake, Baseline Water Quality *(Continued)*

Parameter	WQG PAL	PL-03 (Surface)				PL-03 (Bottom)				PL-04 (Surface)				PL-04 (Bottom)			
		Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	8	7.16	7.49	7.66	3	6.52	6.68	6.82	7	7.45	7.62	7.78	2	-	6.95	-
Lab pH (s.u.)	6.5 - 8.5	8	7.58	7.6	7.64	3	7.57	7.62	7.66	7	7.58	7.62	7.66	2	-	7.62	-
Lab Conductivity (µS/cm)	-	8	84.2	87	88.9	3	87.3	90	91.8	7	85.3	86.6	87.9	2	-	87	-
Total Alkalinity (as $CaCO_3$)	-	8	34.1	35.8	37	3	34.7	36.4	37.8	7	35.2	35.8	36.6	2	-	34.6	-
Total Hardness (as $CaCO_3$)	-	8	39.8	40.5	41.4	3	42	42.3	42.6	7	39.8	40.4	41	2	-	39.8	-
Total Dissolved Solids	-	8	62.2	67.7	76.1	3	78.6	80.1	82.6	7	59.9	66.7	73.1	2	-	72	-
Total Suspended Solids	-	8	1.55	2.64	3.43	3	2.95	3.2	3.55	7	1.35	1.84	2.4	2	-	1.7	-
Total Ammonia (as N)	1.8	3	0.005	0.00743	0.00865	0	-	-	-	3	0.01	0.0144	0.0191	0	-	-	-
Nitrate (as N)	3	8	0.00625	0.0323	0.0528	3	0.0588	0.0785	0.0948	7	0.0135	0.0335	0.0507	2	-	0.0607	-
Nitrite (as N)	0.06	8	0.0005	0.000613	0.0005	3	0.00105	0.002	0.00275	7	0.0005	0.001	0.0013	2	-	0.0019	-
Phosphorus	0.02	8	0.017	0.023	0.028	3	0.029	0.036	0.040	7	0.017	0.022	0.025	2	-	0.029	-
Sulphate	218	8	3.02	3.55	3.85	3	3.73	3.83	3.95	7	3	3.32	3.61	2	-	3.91	-
Chloride	120	8	1.46	1.63	1.71	3	1.67	1.7	1.75	7	1.44	1.55	1.7	2	-	1.73	-
Dissolved Organic Carbon	-	8	12.7	13.4	14.4	3	13.9	14	14.1	7	11.8	13.4	14.8	2	-	13.8	-
Total Cyanide	-	8	0.0005	0.000613	0.0005	3	0.0005	0.000767	0.0009	7	0.0005	0.000657	0.0005	2	-	0.0008	-
Cyanide (WAD)	-	8	0.0005	0.00065	0.0005	3	0.0005	0.000833	0.001	7	0.0005	0.000657	0.0005	2	-	0.0009	-
Cyanide (Free)	0.005	8	0.0005	0.000625	0.0005	3	0.0005	0.0008	0.00095	7	0.0005	0.000671	0.0005	2	-	0.0009	-
Aluminum	1.0	8	0.0572	0.102	0.134	3	0.129	0.166	0.187	7	0.048	0.0685	0.0857	2	-	0.124	-
Aluminum (dissolved)	0.075	8	0.0141	0.0201	0.0262	3	0.016	0.024	0.0292	7	0.0156	0.0192	0.025	2	-	0.0241	-
Antimony	0.02	8	0.000168	0.000189	0.000193	3	0.000175	0.000187	0.0002	7	0.00017	0.000177	0.000185	2	-	0.00017	-
Arsenic	0.005	8	0.00394	0.00523	0.00645	3	0.0066	0.00682	0.00713	7	0.00384	0.00483	0.00589	2	-	0.00582	-
Cadmium	0.0001	8	0.0000025	0.00000314	0.0000025	3	0.0000025	0.00000477	0.0000059	7	0.0000025	0.0000025	2.5E-06	2	-	0.0000025	-
Chromium	0.0089	8	0.00025	0.000296	0.000293	3	0.00034	0.00038	0.0004	7	0.00025	0.000351	0.00027	2	-	0.000295	-
Cobalt	0.00078	8	0.00005	0.0000613	0.00005	3	0.00005	0.00008	0.000095	7	0.00005	0.00005	0.00005	2	-	0.00005	-
Copper	0.005	8	0.00126	0.00131	0.00138	3	0.00141	0.00142	0.00144	7	0.00118	0.00126	0.00133	2	-	0.00138	-
Iron	0.8	8	0.0708	0.126	0.165	3	0.158	0.205	0.232	7	0.0555	0.0887	0.124	2	-	0.139	-
Lead	0.003	8	0.000025	0.0000488	0.0000645	3	0.000067	0.000087	0.000102	7	0.000025	0.0000329	0.000038	2	-	0.0000435	-
Molybdenum	0.073	8	0.000194	0.000217	0.000231	3	0.000225	0.000234	0.000241	7	0.000198	0.000215	0.00023	2	-	0.000214	-
Nickel	0.025	8	0.00088	0.00096	0.00103	3	0.00104	0.00114	0.00122	7	0.00088	0.00101	0.000995	2	-	0.00107	-
Selenium	0.001	8	0.00009	0.0000936	0.000112	3	0.000114	0.000132	0.000141	7	0.0000715	0.0000821	0.000102	2	-	0.000105	-
Silver	0.0001	8	0.000005	0.000005	0.000005	3	0.000005	0.000005	0.000005	7	0.000005	0.000005	0.000005	2	-	0.000005	-
Strontium	2.5	8	0.026	0.0268	0.0267	3	0.0269	0.0271	0.0274	7	0.0259	0.0261	0.0264	2	-	0.027	-
Thallium	0.0003	8	0.000005	0.000005	0.000005	3	0.000005	0.000005	0.000005	7	0.000005	0.000005	0.000005	2	-	0.000005	-
Tungsten	0.03	8	0.00005	0.00005	0.00005	3	0.00005	0.00005	0.00005	7	0.00005	0.00005	0.00005	2	-	0.00005	-
Uranium	0.005	8	0.0000928	0.0000959	0.000101	3	0.000098	0.000101	0.000105	7	0.000088	0.0000934	0.000096	2	-	0.000105	-
Vanadium	0.12	8	0.000445	0.000564	0.000713	3	0.000775	0.000783	0.0008	7	0.00025	0.000444	0.000695	2	-	0.00066	-
Zinc	0.02	8	0.0015	0.0015	0.0015	3	0.0015	0.0015	0.0015	7	0.0015	0.00176	0.0015	2	-	0.0015	-
Zirconium	0.004	8	0.0001	0.000143	0.00021	3	0.000225	0.000237	0.000245	7	0.0001	0.0001	0.0001	2	-	0.000215	-
Mercury	0.000026	8	0.0000025	0.0000025	0.0000025	3	0.0000025	0.0000025	0.0000025	7	0.0000025	0.0000025	2.5E-06	2	-	0.0000025	-
Methylmercury (ng/L)	4	8	0.0255	0.0313	0.0373	3	0.031	0.0367	0.0405	7	0.022	0.0264	0.031	2	-	0.032	-
Ultra Low Mercury (ng/L)	26	8	0.84	1.11	1.24	3	0.995	1.24	1.39	7	0.78	1.03	1.22	2	-	1.02	-

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

Table 4-8 Pakwash Lake, Baseline Water Quality (C*ompleted)*

Parameter	WQG PAL	PL-05 (Surface)				PL-05 (Bottom)			
		Count	25th	Average	75th	Count	25th	Average	75th
Field pH (s.u.)	6.5 - 8.5	7	7.32	7.6	7.85	2	-	6.74	-
Lab pH (s.u.)	6.5 - 8.5	7	7.59	7.65	7.7	2	-	7.67	-
Lab Conductivity (µS/cm)	-	7	85.6	88	88	2	-	90.3	-
Total Alkalinity (as $CaCO_3$)	-	7	35.4	36.6	37.5	2	-	36.5	-
Total Hardness (as $CaCO_3$)	-	7	39.4	40.9	42	2	-	41.2	-
Total Dissolved Solids	-	7	59	65.3	71.8	2	-	76.8	-
Total Suspended Solids	-	7	1.8	2.58	3.18	2	-	4.75	-
Total Ammonia (as N)	1.8	3	0.00375	0.00717	0.0095	0	-	-	-
Nitrate (as N)	3	7	0.0025	0.023	0.0385	2	-	0.065	-
Nitrite (as N)	0.06	7	0.0005	0.0005	0.0005	2	-	0.0005	-
Phosphorus	0.02	7	0.018	0.022	0.025	2	-	0.031	-
Sulphate	218	7	3.09	3.37	3.64	2	-	3.91	-
Chloride	120	7	1.44	1.57	1.72	2	-	1.75	-
Dissolved Organic Carbon	-	7	11.9	12.9	13.2	2	-	13.5	-
Total Cyanide	-	7	0.0005	0.0005	0.0005	2	-	0.0005	-
Cyanide (WAD)	-	7	0.0005	0.0006	0.0005	2	-	0.00095	-
Cyanide (Free)	0.005	7	0.0005	0.0008	0.001	2	-	0.00105	-
Aluminum	1.0	7	0.0624	0.0963	0.129	2	-	0.2	-
Aluminum (dissolved)	0.075	7	0.017	0.019	0.0207	2	-	0.0329	-
Antimony	0.02	7	0.00017	0.000182	0.000188	2	-	0.00017	-
Arsenic	0.005	7	0.00396	0.00508	0.00597	2	-	0.00639	-
Cadmium	0.0001	7	0.0000025	0.0000025	0.0000025	2	-	3.75E-06	-
Chromium	0.0089	7	0.00025	0.000277	0.000305	2	-	0.00046	-
Cobalt	0.00078	7	0.00005	0.00005	0.00005	2	-	0.0001	-
Copper	0.005	7	0.00124	0.00132	0.00135	2	-	0.00157	-
Iron	0.8	7	0.07	0.107	0.149	2	-	0.224	-
Lead	0.003	7	0.000025	0.0000484	0.000066	2	-	0.000105	-
Molybdenum	0.073	7	0.000201	0.000219	0.000231	2	-	0.000228	-
Nickel	0.025	7	0.000885	0.000952	0.000993	2	-	0.00132	-
Selenium	0.001	7	0.0000545	0.0000762	0.0000965	2	-	0.000025	-
Silver	0.0001	7	0.000005	0.000005	0.000005	2	-	0.000005	-
Strontium	2.5	7	0.0264	0.0266	0.0274	2	-	0.0268	-
Thallium	0.0003	7	0.000005	0.000005	0.000005	2	-	0.000005	-
Tungsten	0.03	7	0.00005	0.00005	0.00005	2	-	0.00005	-
Uranium	0.005	7	0.000091	0.0000951	0.0000975	2	-	0.000107	-
Vanadium	0.12	7	0.00025	0.000485	0.00064	2	-	0.000865	-
Zinc	0.02	7	0.0015	0.0015	0.0015	2	-	0.0015	-
Zirconium	0.004	7	0.0001	0.000139	0.00016	2	-	0.000275	-
Mercury	0.000026	7	0.0000025	0.0000025	0.0000025	2	-	0.0000025	-
Methylmercury (ng/L)	4	7	0.021	0.0246	0.0265	2	-	0.036	-
Ultra Low Mercury (ng/L)	26	7	0.64	0.871	1.06	2	-	1.53	-

Notes:
All concentrations re mg/L (unless otherwise noted)
Grey highlighted values are higher than the identified Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL).

5 RESULTS – GROUNDWATER

The groundwater quality database is provided is in Appendix E and consists of over 240 groundwater quality samples that have been collected since 2021, with most samples (231) collected since the fall of 2022. Timeseries plots illustrating seasonal variation of groundwater sampling results is presented in Appendix G. Generally, groundwater quality exhibits minimal seasonal and interannual variation, with quality monitored within a singular well remaining consistent over time.

Descriptive summary statistics of groundwater quality results have been generated as follows:

- Across all monitoring wells (bedrock, glacial till, sand, silt and clay; Table 5-1); this provides an indication of the overall existing range of baseline groundwater quality in the area.
- Subdivided into categories based on completion unit (Table 5-2); this provides an indication of any geospatial and lithological influences on groundwater quality in the area.

Groundwater quality results for dissolved concentrations are compared to WQG PAL. Note, WQG PAL are generally more stringent than drinking water quality guidelines, are not directly applicable to groundwater quality, and have been used here as conservative benchmarks for discussion purposes only.

Overall, groundwater quality of monitored wells is circumneutral to slightly alkaline, with high hardness, low chloride concentrations, and moderate to high conductivity (Table 5-1). Concentrations of nitrogen species (ammonia, nitrate, nitrite) are very low, often at analytical detection limits and always below WQG PAL. Concentrations of dissolved metals and metalloids are also generally low, with most parameters at or below analytical detection limits and / or below WQG PAL (Table 5-1). Key exceptions are noted for the following parameters:

- Concentrations consistently greater than WQG PAL:
  - Phosphorus (approximately 51% of total observations).
- Concentrations occasionally greater than WQG PAL:
  - Aluminum (approximately 5% of total observations).
  - Arsenic (approximately 5% of total observations).
  - Cobalt (approximately 32% of total observations).
  - Copper (approximately 13% of total observations).
  - Iron (approximately 18% of total observations).
  - Tungsten (approximately 16% of total observations).
  - Uranium (approximately 14% of total observations).

The most frequent concentrations greater than WQG PAL were associated bedrock monitoring wells. For these wells, concentrations greater than WQG PAL were consistently observed for:

- Phosphorus
- Cobalt
- Tungsten.

The occurrence of naturally elevated concentrations of some parameters in groundwater is commonly observed in regions of planned mining activities in Ontario, as well as across Canada. In such regions, naturally elevated concentrations of certain water quality parameters generally occur where exposure of rock or other geologic materials to water results in natural weathering processes. Apart from metal leaching and acid rock drainage processes, natural weathering processes would also include mineral dissolution and / or reductive dissolution and subsequent mobilization of solid-phase constituents (e.g., metals), which are then transported to groundwater. Leachability of metals related to the specific rock types (i.e. lithology) encountered in the Property is the subject of the geochemistry baseline investigation, which is presented in a separate report.

Table 5-1: Baseline Groundwater Quality, All Monitoring Wells

Parameter	WQG PAL [1]	Count	25th Percentile	Median	75th Percentile	95th Percentile
pH	6.5 – 8.5	241	7.43	7.90	8.11	8.43
Conductivity	-	241	219	274	394	723
Hardness	-	244	73.2	126	183	362
Total Dissolved Solids	-	241	126	176	272	443
Ammonia as N	1.8	117	0.011	0.028	0.05	0.305
Nitrate (as N)	3	241	0.0025	0.02	0.0537	0.182
Nitrite (as N)	0.06	241	0.0005	0.0005	0.0011	0.015
Phosphorus	0.03	226	0.0121	0.0318	0.0855	1.67
Chloride	120	241	0.23	0.35	0.77	4.55
Sulphate	218	241	2.27	4.93	10.7	22.0
Cyanide (total)	0.005	117	0.0005	0.0005	0.0005	0.005
Aluminum	0.075	241	0.0025	0.005	0.0152	0.0875
Antimony	0.02	244	0.00005	0.00005	0.00014	0.00045
Arsenic	0.005	244	0.000328	0.0006	0.00127	0.00502
Cadmium	0.0001	244	0.0000025	0.00000515	0.0000128	0.0000325
Chromium	0.0089	239	0.00005	0.00018	0.00025	0.000611
Cobalt	0.00078	244	0.00005	0.00027	0.00124	0.0124
Copper	0.005	244	0.0001	0.000505	0.00208	0.0128
Iron	1	244	0.0168	0.112	0.572	2.78
Lead	0.003	244	0.000025	0.000025	0.000025	0.000173
Mercury	0.0002	240	0.0000025	0.0000025	0.0000025	0.000005
Molybdenum	0.073	244	0.00118	0.00262	0.00663	0.0229
Nickel	0.025	244	0.00025	0.00114	0.00265	0.0174
Selenium	0.002	244	0.000025	0.000077	0.00015	0.000609
Silver	0.00025	244	0.000005	0.000005	0.000005	0.000025
Thallium	0.0003	244	0.000005	0.000005	0.000005	0.00002
Tungsten	0.03	243	0.00023	0.00197	0.0083	0.291
Uranium	0.005	243	0.00025	0.00074	0.00231	0.012
Vanadium	0.12	243	0.00025	0.00025	0.00072	0.0029
Zinc	0.023	243	0.0005	0.0012	0.00220	0.011
Zirconium	0.004	238	0.00015	0.00015	0.00015	0.0012
Methylmercury (ng/L)	4	48	0.00344	0.012	0.0388	0.273
Low-Level Mercury (ng/L)	200	48	0.303	1.65	3.85	16.5

Notes:
All units are mg/L (unless otherwise noted).
All concentrations are dissolved (unless otherwise indicated).
Grey highlighted values are greater than identified WQG PAL.
1 Benchmarks are Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL). WQG PAL are not applicable to groundwater quality and are used here as a conservative benchmark to support baseline reporting only.

Table 5-2: Baseline Groundwater Quality, Divided by Completion Unit

Parameter	WQG PAL [1]	Bedrock (n = 94)			Glacial Till (n = 66)			Sand (n = 50)			Silt/Clay (n = 26)		
		25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile
pH	6.5 – 8.5	7.67	7.96	8.10	7.04	7.82	8.19	7.47	7.84	8.12	7.67	7.83	8.01
Conductivity	-	225	262	359	78	257	305	228	310	391	330	426	719
Hardness	-	80	124	183	32.6	110	133	88.6	127	188	163	201	350
Total Dissolved Solids	-	123	159	248	60.7	153	187	158	199	273	245	288	389
Ammonia as N	1.8	0.011	0.029	0.05	0.005	0.0175	0.042	0.0188	0.0405	0.0944	0.0177	0.0485	0.0803
Nitrate (as N)	3	0.00250	0.0159	0.0497	0.0025	0.0189	0.0465	0.0025	0.0086	0.0811	0.0025	0.0211	0.0461
Nitrite (as N)	0.06	0.0005	0.0005	0.0018	0.0005	0.0005	0.0005	0.0005	0.0005	0.00108	0.0005	0.0005	0.001
Phosphorus	0.03	0.00983	0.0225	0.0597	0.0107	0.0231	0.0692	0.0209	0.0434	0.214	0.04	0.095	0.874
Chloride	120	0.276	0.415	0.77	0.179	0.32	1.05	0.220	0.31	0.545	0.26	0.41	0.6
Sulphate	218	3.3	5.33	14.9	2.13	5.58	12.5	2.38	4.87	6.44	0.47	1.89	2.93
Cyanide (total)	0.005	0.0005	0.0005	0.005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Aluminum	0.075	0.00235	0.00455	0.0101	0.00253	0.00395	0.0152	0.0024	0.0102	0.0275	0.0023	0.0057	0.0376
Antimony	0.02	0.00005	0.00005	0.00019	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00025
Arsenic	0.005	0.000381	0.00054	0.000858	0.00024	0.00041	0.000985	0.000445	0.00093	0.00179	0.00044	0.000745	0.00125
Cadmium	0.0001	0.0000025	0.00000505	0.0000133	0.0000025	0.0000025	0.00001	0.0000025	0.0000025	0.0000071	0.00000358	0.000012	0.0000225
Chromium	0.0089	0.00005	0.00012	0.00025	0.00005	0.00017	0.00025	0.00005	0.00012	0.00029	0.000173	0.00025	0.000405
Cobalt	0.00078	0.00014	0.000507	0.00159	0.00005	0.000125	0.000738	0.000113	0.00024	0.000955	0.000171	0.00027	0.000595
Copper	0.005	0.0001	0.0005	0.00153	0.0001	0.000505	0.00228	0.0001	0.00043	0.00124	0.000325	0.000705	0.00191
Iron	1	0.0225	0.0915	0.653	0.005	0.148	0.426	0.0543	0.12	0.556	0.005	0.203	1.01
Lead	0.003	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000025	0.000045
Mercury	0.0002	0.0000025	0.0000025	0.0000025	0.0000025	0.0000025	0.0000025	0.0000025	0.0000025	0.0000025	0.0000025	0.0000025	0.0000025
Molybdenum	0.073	0.00127	0.00258	0.0083	0.00106	0.00274	0.00442	0.00128	0.002	0.00326	0.00142	0.00439	0.00991
Nickel	0.025	0.000505	0.00227	0.00422	0.00025	0.00073	0.00214	0.00025	0.00051	0.00146	0.00032	0.00124	0.00239
Selenium	0.002	0.000025	0.0000483	0.000125	0.000025	0.0000825	0.000225	0.000025	0.00008	0.000121	0.000025	0.0000755	0.000125
Silver	0.00025	0.000005	0.000005	0.000011	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Thallium	0.0003	0.000005	0.000005	0.000005	0.000005	0.000005	0.0000124	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Tungsten	0.03	0.00124	0.00548	0.076	0.00017	0.00059	0.0077	0.000143	0.000325	0.00475	0.00016	0.00063	0.00163
Uranium	0.005	0.000313	0.00071	0.00364	0.000213	0.00069	0.00205	0.000276	0.000692	0.00181	0.000382	0.00124	0.00247
Vanadium	0.12	0.00025	0.00025	0.0006	0.00025	0.00025	0.000575	0.00025	0.00025	0.001	0.00025	0.00046	0.00149
Zinc	0.023	0.0005	0.00138	0.0026	0.0005	0.00125	0.0018	0.0005	0.0008	0.00218	0.0005	0.001	0.0026
Zirconium	0.004	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	0.00033	0.001
Methylmercury (ng/L)	4	0.00175	0.011	0.084	0.00175	0.0065	0.0203	0.008	0.0185	0.069	0.00788	0.014	0.0335
Low-Level Mercury (ng/L)	200	0.33	1.76	3.0	0.315	1.65	2.45	0.255	1.46	4.42	0.490	0.65	5.58

Notes:
All units are mg/L (unless otherwise noted).
All concentrations are dissolved (unless otherwise indicated).
Grey highlighted values are greater than identified WQG PAL.
1 Benchmarks are Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL). WQG PAL are not applicable to groundwater quality and are used here as a conservative benchmark to support baseline reporting only.

6 SUMMARY OF MAIN FINDINGS

The objective of the Water Quality Baseline Report is to characterize existing water quality conditions of surface waters (lakes, rivers, streams) and groundwaters (water beneath the ground's surface, e.g., stored within overburden and bedrock) in the area around the planned development. Baseline conditions refer to pre-Project, existing environmental conditions, consistent with industry-standard effects assessment methodologies. This baseline study has been designed to be extensive and appropriate to inform the effects assessment and encompasses a comprehensive network of monitoring stations strategically selected to capture and characterize spatial and temporal variations of existing water quality conditions.

Monitoring results indicate that baseline surface water quality is typical of what would be expected in the vicinity of proposed mining developments in northern Ontario, including circumneutral to slightly acidic pH, low concentrations of nitrogen species (ammonia, nitrate, nitrite), low concentrations of total dissolved solids, and occasionally elevated concentrations of total metals. Sulphate concentrations were variable across the study area and ranged from 0.15 mg/L to 25.0 mg/L, with a 2.8 mg/L average across all samples collected. The highest concentrations were generally associated with small unnamed watercourses and waterbodies, with the 25.0 mg/L maximum value observed in September 2022 at station SW-08a.

Concentrations of most total and dissolved metals were low in the Chukuni River, the proposed receiving environment for the Project. Some parameters were observed to be frequently greater than WQG PAL; these were:

- Total arsenic
- Total phosphorus.

The proposed Project is located primarily within the drainage area of Dixie Creek and its tributaries. Concentrations of most total and dissolved metals were low in Dixie Creek. Some parameters were observed to be frequently greater than WQG PAL, these were:

- Total arsenic
- Total and dissolved aluminum
- Total iron
- Total phosphorus.

Water quality of small unnamed watercourses appears to be highly influenced by adjacent wetlands and relatively low flow and / or ephemeral conditions. Waters quality in unnamed watercourses is moderately hard, exhibit large seasonal temperature fluctuations and have high levels total and dissolved organic carbon. Concentrations of phosphorus in Project area watercourse and waterbodies are generally elevated and were classified as meso-eutrophic to eutrophic. Parameters frequently observed to be greater than WQG PAL in unnamed watercourses were:

- Total arsenic
- Total and dissolved aluminum
- Total cobalt
- Total iron
- Total phosphorus.

Total metal and dissolved metal concentrations are very low in monitored lakes relative to monitored rivers and creeks, and were consistently below identified WQG PAL. Concentrations of arsenic and phosphorus were occasionally greater than WQG PAL.

Groundwater quality in the area is also of good quality, and concentrations of dissolved metals are low with most parameters at or below analytical detection limits, or below WQG PAL. Key exceptions were noted for:

- Dissolved phosphorus
- Dissolved cobalt
- Dissolved copper
- Dissolved iron
- Dissolved tungsten
- Dissolved uranium.

Naturally elevated concentrations of certain water quality parameters are commonly found in regions with planned or proposed mining activities in Ontario and across Canada. These elevated levels typically occur when rocks or other geological materials are exposed to water, triggering natural weathering processes that release metals and other substances into both groundwater and surface water. In addition, nearby wetlands likely influence surface water concentrations due to low dissolved oxygen levels and high concentrations of dissolved organic carbon, both of which help keep metals in solution or suspended in the water column.

The baseline water quality monitoring program will be ongoing throughout 2025, with the objective to supplement the existing database and support long-term record development for surface water quality conditions in the Project Area.

7 REFERENCES

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- WSP 2025b. Great Bear Project, Hydrology Baseline Report (*In progress*).
- WSP 2025c. Great Bear Project, Hydrogeology Baseline Report (*In progress)*.
- WSP 2025d. Great Bear Project, Mercury Study Report (*In progress*).

Appendix A Field Photographs (2022 / 2023)

Site overview facing southwest (June)

Boat launch facing east (June)

Site overview facing north (July)

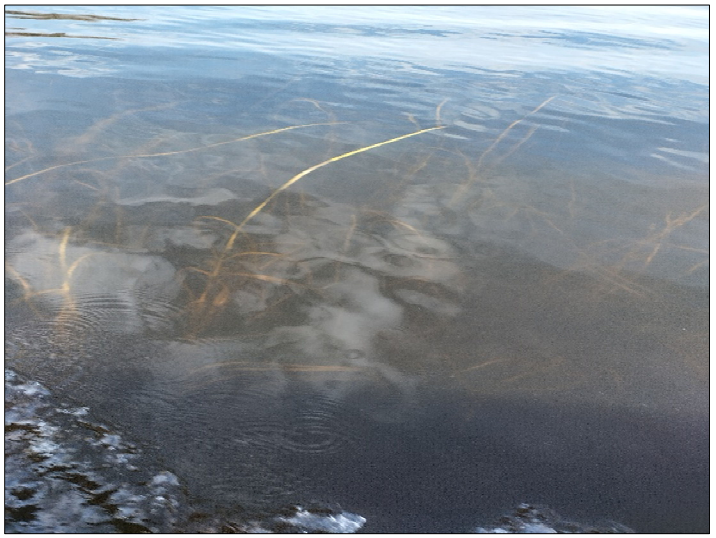
Site overview facing south (July)

Plate A-1. Unnamed Waterbody 6 (Station: SW-14)

Site overview facing north (July)

Site overview facing east (July)

Site overview (October)



Dense submergent vegetation near shore (October)

Plate A-2. Genessee Lake (Station: GL)

Site overview facing southwest (June)

Site overview facing east (June)

Dense submergent vegetation near shore (July)

Example of minnow trap set from shore in aquatic vegetation (October)

Plate A-3. Unnamed Waterbody 1 (Station: SW-01)

Site overview facing downstream (June)

Steep shoreline surrounded by mixed deciduous and coniferous forest (October)

Site overview facing northwest (October)

Example of homogenized sediment sample (October)

Plate A-4a. Dixie Creek at Dixie Lake Outlet (Station: DC-US)

Beaver Dam at Dixie Lake Outlet (September 2023)

Beaver Dam at Dixie Lake Outlet (September 2023)

Low flow conditions in Dixie Creek, downstream of Beaver Dam

Low flow conditions in Dixie Creek, downstream of Beaver Dam

Plate A-4b. Dixie Creek at Dixie Lake Outlet and downstream Dixie Creek, showing effects of Beaver Dam Activities in September 2023

Site overview facing northwest (June)

Site overview facing northeast (July)

Site overview facing northwest (October)

Example of east bank (October)

Plate A-5. Dixie Creek, Mid-field (Station: SW-03)

Plate A-6. Dixie Creek at Bridge Crossing, November (Station: SW-04)

Site overview facing southeast (July)

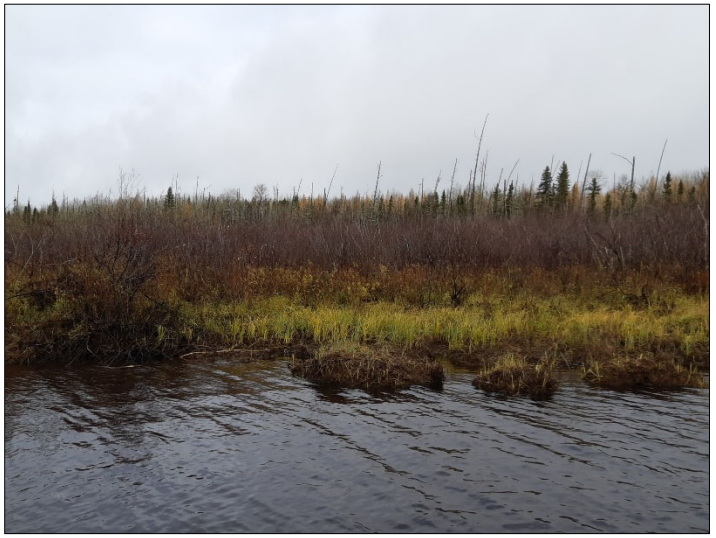
Site overview facing southeast (October)

Example of west bank (October)

Site overview facing northeast (October)

Plate A-7. Dixie Creek, Upstream of Watercourse 3 Confluence (Station: SW-08a)

Gillnet deployment through water course. (June)



Site overview facing the North bank. (June)

Site overview facing Northeast (October)

Site overview facing Southwest. (October)

Plate A-8. Dixie Creek, Downstream of Watercourse 7 Confluence (Station: SW-15)

Site overview facing north (June)

Site overview facing west (June)

Example of boat launch on east shoreline (October)

Site overview facing northwest (October)

Plate A-9. Chukuni River, Upstream Reference Station (Station: CR-REF)

Site overview facing northeast (June)

Site overview facing east (October)

Site overview facing west (October)

CR-FDP, proximate to the transmission line corridor

Plate A-10. Chukuni River, Upstream of Dixie Creek Confluence (Station: CR-FDP)

Fallen logs and shrubs provide in-stream cover (June)

Site overview facing northwest (October)

Site overview facing west (October)

Site overview facing north (October)

Plate A-11. Chukuni River, Downstream of Dixie Creek Confluence (Station: CR-DS)

Site overview facing North (June)

Shallow stream with undercut banks and large rocks (June)

Shallow stream with fallen logs and dense vegetation (July)

Shallow stream with fallen logs and fallen leaves (October)

Plate A-12. Unnamed Watercourse 6B-02, a Tributary to Waterbody 06 (Station: SW-12)

Shallow stream with undercut banks and boulders (July)

Shallow stream with overhanging vegetation and large rocks (July)

Shallow stream with large boulders and overhanging shrubs (October)

Shallow stream with fallen logs and fallen leaves (October)

Plate A-13. Unnamed Watercourse 6B, a Tributary to Waterbody 06 (Station: SW-13)

Shallow stream with dense canopy and undercut banks (July)

Shallow stream with silt and cobble substrate (July)

Narrow stream with overhanging shrubs and banks (October)

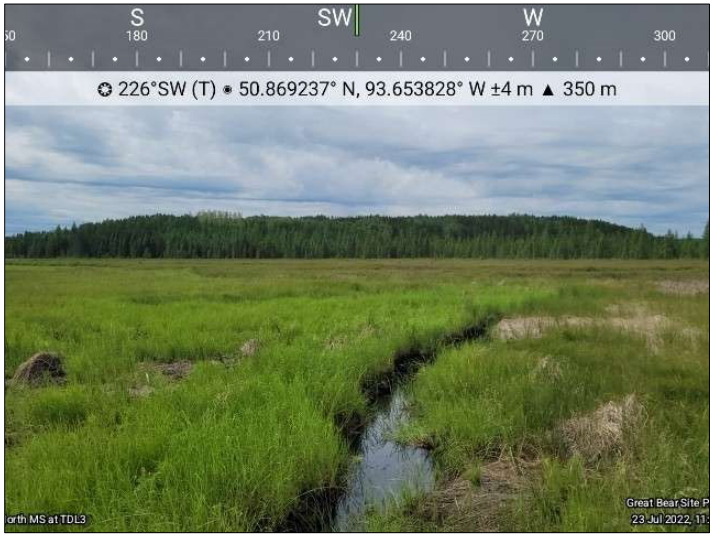
Narrow stream with overhanging shrubs and banks (October)

Plate A-14. Unnamed Watercourse 6B-01, a Tributary to Waterbody 6 (Station: SW-11)

Site overview facing east (July)

Narrow stream with overhanging branches and woody debris (July)

Spruce, alder, and sphagnum within the floodplain (July)



Site overview facing southwest (July)

Plate A-15. Unnamed Waterbody 1 (Station SW-01)

Shallow stream with dense canopy and undercut banks (June)

Narrow stream showing undercut banks with muck and silt substrate (June)

Narrow stream within a dense mixed coniferous/deciduous forest (October)

Narrow stream with small grasses and plants (July)

Plate A-16. Unnamed Watercouse 4, Upstream of Confluence of Dixie Creek at Station SW-03

Shallow stream with dense canopy and undercut banks (June)

Narrow, shallow stream (June)

Narrow, shallow stream (July)

Dry stream in dense mixed coniferous/deciduous forest (July)

Plate A-17. Unnamed Watercourse 3 (Station SW-07)

Site overview facing west, showing tea-stained water (June)

Site overview facing west, showing tea-stained water (July)

Narrow stream with undercut banks and overhanging branches (June)

Narrow stream with undercut banks and overhanging branches (July)

Plate A-18. Unnamed Watercourse 3B (Station SW-05)

Narrow, shallow stream with silt substrate (June)

Narrow, shallow stream (June)

Narrow, shallow stream with undercut banks (July)

Narrow stream, shallow stream (July)

Plate A-19. Unnamed Watercourse 3B (Station SW-06)

Narrow stream with overhanging branches and fallen logs (July)

Eroding bank with clay substrate (July)

High, eroded banks with fallen logs (July)

High, undercut banks with overhanging shrubs and grasses (July)

Plate A-20. Unnamed Watercourse 8 (Station SW-GL02)

Appendix B
Quality Assurance and Quality Control Documents

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-03-08	-	-	7.44	-	1.0	-	-	36.0	-	-	47.0	46.0	11.0	11	57	3	100
CR-REF	2022-03-08	-	-	7.43	-	1.0	-	-	34.0	-	-	44.0	41.0	10.0	10	80	2	98
Duplicates Averaged			-	7.44	-	1.0	-	-	35.0	-	-	45.5	43.5	10.5	10.5	68.5	2.5	99
Relative Percent Difference			-	0.1	-	0.0	-	-	5.6	-	-	6.4	10.9	9.1	9.1	40.4	33.3	2.0
CR-REF	2022-04-26	CA15019-MAY22	-	7.20	-	1.0	-	-	32.0	-	-	40.6	35.8	9.0	10	83	4	86
CR-REF	2022-04-26	CA15019-MAY22	-	7.35	-	1.0	-	-	31.0	-	-	38.8	35.4	8.0	9	74	2	87
Duplicates Averaged			-	7.28	-	1.0	-	-	31.5	-	-	39.7	35.6	8.5	9.5	78.5	3.0	86.5
Relative Percent Difference			-	2.1	-	0.0	-	-	3.1	-	-	4.4	1.1	11.1	10.0	10.8	50.0	1.2
CR-REF	2024-01-24	TMWATR013124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2024-01-24	TMWATR013124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-08-06	WP2419247-002	7.62	7.57	23.9	1.0	33.2	33.2	0.5	0.5	0.5	42.5	40.6	-	13.9	70.1	3.0	95.3
CR-FDP-DUP	2024-08-06	WP2419247-003	7.62	7.58	23.9	1.0	33.0	33.0	0.5	0.5	0.5	42.4	40.6	-	14.1	73.4	4.0	96.2
Duplicates Averaged			7.62	7.58	23.9	1.0	33.1	33.1	0.5	0.5	0.5	42.5	40.6	-	14.0	71.8	3.5	95.8
Relative Percent Difference			0.0	0.1	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.2	0.0	-	1.4	4.7	33.3	0.9
SW-03	2024-05-26	WP2413300-005	6.93	7.11	8.6	2.6	44.7	44.7	0.5	0.5	0.5	66.4	57.5	-	63.3	194.0	23.0	105
SW-03	2024-05-26	WP2413300-004	6.93	7.09	8.6	2.8	43.3	43.3	0.5	0.5	0.5	62.4	57.6	-	61.3	194.0	43.5	103
Duplicates Averaged			6.93	7.10	8.60	2.7	44.0	44.0	0.5	0.5	0.5	64.4	57.6	-	62.3	194.0	33.3	104
Relative Percent Difference			0.0	0.3	0.0	7.7	3.1	3.1	0.0	0.0	0.0	6.0	0.2	-	3.2	0.0	89.1	1.9
SW-03	2024-05-26	TMWATR061924CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-05-26	TMWATR061924CH1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-03-08	-	-	7	0.08	11	-	-	0.05	0.015	0.09	0.09	-	-	35	-	-	-	0.063	0.00045
CR-REF	2022-03-08	-	-	6	0.06	9	-	-	0.05	0.015	0.10	0.10	-	-	32	-	-	-	0.071	0.00045
Duplicates Averaged			-	6.5	0.07	10	-	-	0.05	0.015	0.10	0.10	-	-	33.5	-	-	-	0.067	0.00045
Relative Percent Difference			-	14.3	25.0	18.2	-	-	0.0	0.0	11.1	11.1	-	-	8.6	-	-	-	12.7	0.0
CR-REF	2022-04-26	CA15019-MAY22	-	3	0.06	8	-	-	0.05	0.015	0.12	0.12	-	-	24	-	-	-	0.062	0.00045
CR-REF	2022-04-26	CA15019-MAY22	-	3	0.11	8	-	-	0.05	0.015	0.13	0.13	-	-	27	-	-	-	0.064	0.00045
Duplicates Averaged			-	3	0.09	8	-	-	0.05	0.015	0.13	0.13	-	-	25.5	-	-	-	0.063	0.00045
Relative Percent Difference			-	0.0	83.3	0.0	-	-	0.0	0.0	8.3	8.3	-	-	12.5	-	-	-	3.2	0.0
CR-REF	2024-01-24	TMWATR013124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2024-01-24	TMWATR013124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-08-06	WP2419247-002	-	3.0	-	6.4	-	0.0005	0.01	0.001	0.01	0.01	0.03	-	-	0.0005	0.001	0.0005	0.133	0.00028
CR-FDP-DUP	2024-08-06	WP2419247-003	-	3.0	-	6.5	-	0.0005	0.02	0.001	0.01	0.01	0.03	-	-	0.0005	0.0011	0.0005	0.137	0.00029
Duplicates Averaged			-	3.0	-	6.4	-	0.0005	0.01	0.001	0.01	0.01	0.03	-	-	0.0005	0.0011	0.0005	0.135	0.00029
Relative Percent Difference			-	0.3	-	0.6	-	0.0	83.1	0.0	22.2	22.2	1.9	-	-	0.0	10.0	0.0	3.0	3.6
SW-03	2024-05-26	WP2413300-005	-	1.1	-	1.1	-	0.0005	0.02	0.002	0.66	0.66	0.13	-	-	0.0028	0.0026	0.0029	2.350	0.00020
SW-03	2024-05-26	WP2413300-004	-	1.1	-	1.0	-	0.0005	0.02	0.001	0.64	0.64	0.12	-	-	0.003	0.0025	0.0025	2.270	0.00019
Duplicates Averaged			-	1.1	-	1.1	-	0.0005	0.02	0.001	0.65	0.65	0.13	-	-	0.0029	0.0026	0.0027	2.3	0.00020
Relative Percent Difference			-	0.9	-	3.7	-	0.0	40.4	26.7	3.9	3.9	3.9	-	-	7.1	3.8	13.8	3.4	5.0
SW-03	2024-05-26	TMWATR061924CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-05-26	TMWATR061924CH1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-03-08	-	0.0092	0.0121	0.0000035	0.000005	0.014	0.000082	13.6	-	0.0008	0.000139	0.0037	0.088	0.000045	0.0019	3.11	0.00403	-	0.00027	0.0017	0.017	-
CR-REF	2022-03-08	-	0.0085	0.0117	0.0000035	0.000005	0.013	0.000152	12.7	-	0.0011	0.000167	0.0056	0.107	0.000045	0.0017	2.90	0.00415	-	0.00023	0.0015	0.016	-
Duplicates Averaged			0.0089	0.0119	0.0000035	0.000005	0.014	0.000117	13.2	-	0.0009	0.000153	0.0047	0.098	0.000045	0.0018	3.01	0.00409	-	0.00025	0.00160	0.017	-
Relative Percent Difference			7.6	3.3	0.0	0.0	7.1	85.4	6.6	-	35.0	20.1	51.4	21.6	0.0	10.5	6.75	3.0	-	14.8	11.8	5.9	-
CR-REF	2022-04-26	CA15019-MAY22	0.0070	0.0082	0.0000035	0.000005	0.009	0.000002	11.8	-	0.0003	0.000097	0.0015	0.084	0.000045	0.0017	2.74	0.00531	-	0.00021	0.0014	0.008	-
CR-REF	2022-04-26	CA15019-MAY22	0.0073	0.0082	0.0000035	0.000005	0.009	0.000002	11.1	-	0.0001	0.000091	0.0015	0.083	0.000045	0.0017	2.68	0.00500	-	0.00020	0.0013	0.009	-
Duplicates Averaged			0.0072	0.0082	0.0000035	0.000005	0.009	0.000002	11.5	-	0.0002	0.000094	0.0015	0.084	0.000045	0.0017	2.71	0.00516	-	0.00021	0.0013500	0.009	-
Relative Percent Difference			4.3	0.5	0.0	0.0	0.0	0.0	5.9	-	69.2	6.2	0.0	1.2	0.0	0.0	2.19	5.8	-	4.8	7.1	12.5	-
CR-REF	2024-01-24	TMWATR013124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2024-01-24	TMWATR013124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-08-06	WP2419247-002	0.0120	0.0087	0.00001	0.000025	0.005	0.000003	12.3	0.000017	0.0004	0.000110	0.0015	0.149	0.000072	0.0021	2.87	0.01130	0.0000025	0.00025	0.00131	0.025	0.034
CR-FDP-DUP	2024-08-06	WP2419247-003	0.0118	0.0088	0.00001	0.000025	0.005	0.000007	12.2	0.000017	0.0003	0.000110	0.0015	0.153	0.000077	0.0022	2.89	0.01080	0.0000025	0.00024	0.00131	0.025	0.015
Duplicates Averaged			0.0119	0.0088	0.00001	0.000025	0.005	0.000005	12.3	0.0000170	0.0003	0.000110	0.0015	0.1510000	0.000075	0.0022	2.88	0.01105	0.0000025	0.00024	0.00131	0.025	0.0245000
Relative Percent Difference			1.7	1.1	0.0	0.0	0.0	188.0	0.8	0.0	11.1	0.0	1.4	2.7	6.9	4.8	0.70	4.4	0.0	4.8	0.0	0.0	55.9
SW-03	2024-05-26	WP2413300-005	0.0048	0.0344	0.000105	0.000025	0.014	0.000042	18.5	0.000176	0.0041	0.001060	0.0044	2.07	0.000742	0.0057	4.91	0.10100	0.0000158	0.00041	0.00459	0.129	0.129
SW-03	2024-05-26	WP2413300-004	0.0045	0.0325	0.000112	0.000025	0.014	0.000045	17.5	0.000162	0.0040	0.000990	0.0043	2	0.000718	0.0056	4.53	0.09390	0.0000182	0.00035	0.0048	0.108	0.108
Duplicates Averaged			0.0047	0.0335	0.00011	0.000025	0.014	0.000043	18.0	0.00017	0.0040	0.001025	0.0044	2.0	0.00073	0.00565	4.72	0.097	0.000017	0.00038	0.0047	0.119	0.1185000
Relative Percent Difference			5.2	5.5	6.7	0.0	0.0	6.4	5.4	8.0	3.9	6.6	0.7	3.4	3.2	1.8	7.74	7.0	15.2	15.9	4.6	16.3	16.3
SW-03	2024-05-26	TMWATR061924CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-05-26	TMWATR061924CH1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-03-08	-	1.47	-	0.00011	2.07	0.000025	4.28	0.037	3.0	-	0.0000025	-	0.00041	0.00261	0.00025	0.000096	0.00042	-	0.008	0.0010	0.003	-
CR-REF	2022-03-08	-	1.60	-	0.00011	1.96	0.000025	4.07	0.034	3.0	-	0.0000025	-	0.00039	0.00329	0.00038	0.000094	0.00041	-	0.024	0.0010	0.004	-
Duplicates Averaged			1.54	-	0.00011	2.02	0.000025	4.18	0.036	3.0	-	0.0000025	-	0.00040	0.00295	0.00032	0.000095	0.00042	-	0.016	0.0010	0.004	-
Relative Percent Difference			8.8	-	0.0	5.3	0.0	4.9	7.8	0.0	-	0.0	-	4.9	26.1	52.0	2.1	2.4	-	200.0	0.0	33.3	-
CR-REF	2022-04-26	CA15019-MAY22	1.09	-	0.00002	1.87	0.000025	2.68	0.034	2.0	-	0.0000025	-	0.00006	0.00225	0.00002	0.000084	0.00043	-	0.001	0.0010	-	0.009
CR-REF	2022-04-26	CA15019-MAY22	1.06	-	0.00002	1.81	0.000025	2.60	0.033	2.0	-	0.0000025	-	0.00007	0.00202	0.00003	0.000085	0.00039	-	0.001	0.0010	0.027	-
Duplicates Averaged			1.08	-	0.00002	1.84	0.000025	2.64	0.034	2.0	-	0.0000025	-	0.00007	0.00214	0.00003	0.000085	0.00041	-	0.001	0.0010	0.027	0.009
Relative Percent Difference			2.8	-	0.0	3.2	0.0	3.0	4.1	0.0	-	0.0	-	16.7	10.2	50.0	1.2	9.3	-	0.0	0.0	-	-
CR-REF	2024-01-24	TMWATR013124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2024-01-24	TMWATR013124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-08-06	WP2419247-002	1.06	0.00199	0.000092	2.07	0.000005	2.79	0.034	2.5	0.0001	0.000005	0.00005	0.00005	0.00559	0.00005	0.000121	0.00081	-	0.002	0.0002	0.022	-
CR-FDP-DUP	2024-08-06	WP2419247-003	1.07	0.00201	0.000092	2.09	0.000005	2.72	0.034	2.4	0.0001	0.000005	0.00005	0.00005	0.00548	0.00005	0.000122	0.00082	-	0.002	0.0002	0.023	-
Duplicates Averaged			1.07	0.0020000	0.000092	2.08	0.000005	2.76	0.034	2.4	0.0001000	0.000005	0.00005	0.00005	0.00554	0.00005	0.000122	0.00082	-	0.002	0.0002	0.023	-
Relative Percent Difference			0.9	1.0	0.0	1.0	0.0	2.5	0.6	3.7	0.0	0.0	0.0	0.0	2.0	0.0	0.8	1.2	-	0.0	4.5	4.9	-
SW-03	2024-05-26	WP2413300-005	4.69	0.00567	0.000249	9.42	0.000019	2.27	0.038	0.9	0.0001	0.000023	0.00049	0.00005	0.09370	0.00005	0.000355	0.00514	-	0.009	0.0022	0.550	-
SW-03	2024-05-26	WP2413300-004	4.75	0.00537	0.00021	8.99	0.000018	1.89	0.034	0.8	0.0001	0.000022	0.0005	0.00005	0.08540	0.00005	0.000333	0.00493	-	0.009	0.0025	0.553	-
Duplicates Averaged			4.72	0.0055200	0.000230	9.21	0.000019	2.08	0.036	0.8	0.0001000	0.0000225	0.00050	0.00005	0.08955	0.00005	0.000344	0.00504	-	0.009	0.0024	0.552	-
Relative Percent Difference			1.3	5.3	15.7	4.6	5.3	16.7	8.8	20.2	0.0	4.3	2.0	0.0	8.9	0.0	6.2	4.1	-	2.3	11.2	0.5	-
SW-03	2024-05-26	TMWATR061924CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-05-26	TMWATR061924CH1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-03-08	-	0.00045	0.0083	0.0139	0.0000035	0.00001	0.008	0.000124	13.3	-	0.00045	0.000124	0.0045	0.019	0.000045	0.0018	3.04	0.00224	0.000005	0.00026	0.0017	0.006
CR-REF	2022-03-08	-	0.00045	0.0075	0.0118	0.0000035	0.00001	0.007	0.000102	11.9	-	0.00037	0.000103	0.0039	0.018	0.000045	0.0014	2.78	0.00194	0.000005	0.00022	0.0015	0.009
		Duplicates Averaged	0.00045	0.0079	0.0128500	0.0000035	0.00001	0.008	0.0001130	12.6	-	0.00041	0.000114	0.0042	0.019	0.000045	0.0016	2.91	0.00209	0.000005	0.0002	0.0016	0.008
		Relative Percent Difference	0.0	9.6	15.1	0.0	0.0	12.5	17.7	10.5	-	17.8	16.9	13.3	5.3	0.0	22.2	8.6	13.4	0.0	15.4	11.8	50.0
CR-REF	2022-04-26	CA15019-MAY22	0.00045	0.0046	0.0069	0.0000035	0.00001	0.008	0.0000015	10.3	-	0.00004	0.000052	0.0012	0.020	0.000045	0.0015	2.43	0.00119	0.000005	0.00019	0.0012	0.007
CR-REF	2022-04-26	CA15019-MAY22	0.00045	0.0054	0.0068	0.000011	0.00001	0.008	0.0000015	10.3	-	0.00016	0.000034	0.0012	0.020	0.000045	0.0015	2.38	0.00134	0.000005	0.00019	0.0011	0.010
		Duplicates Averaged	0.00045	0.0050	0.0068500	0.0000073	0.00001	0.008	0.0000015	10.3	-	0.00010	0.000043	0.0012	0.020	0.000045	0.0015	2.41	0.00127	0.000005	0.0001900	0.0011500	0.009
		Relative Percent Difference	0.0	17.4	1.4	214.3	0.0	0.0	0.0	0.0	-	300.0	34.6	0.0	0.0	0.0	0.0	2.1	12.6	0.0	0.0	8.3	42.9
CR-REF	2024-01-24	TMWATR013124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2024-01-24	TMWATR013124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	TMWATR012524JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-01-16	MTWATR020924JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	TMWATR022824CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-02-10	MTWATR030824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-03-08	MTWATR032124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2024-08-06	WP2419247-002	0.00027	0.0113	0.00799	0.00001	0.00003	0.005	0.0000025	11.9	0.000005	0.00012	0.000050	0.0012	0.039	0.000025	0.0014	2.65	0.00101	0.000003	0.000205	0.00098	0.015
CR-FDP-DUP	2024-08-06	WP2419247-003	0.00027	0.0112	0.00812	0.00001	0.00003	0.005	0.0000025	12.0	0.000005	0.00005	0.000050	0.0012	0.039	0.000025	0.0014	2.58	0.00096	0.000003	0.000219	0.00104	0.015
		Duplicates Averaged	0.00027	0.0113	0.0080550	0.0000100	0.00003	0.005	0.0000025	12.0	0.000005	0.00009	0.000050	0.0012	0.039	0.000025	0.0014	2.62	0.00099	0.000003	0.0002120	0.0010100	0.015
		Relative Percent Difference	0.0	0.9	1.6	0.0	0.0	0.0	0.0	0.8	0.0	58.3	0.0	4.2	0.0	0.0	0.0	2.6	5.0	0.0	6.8	6.1	0.0
SW-03	2024-05-26	WP2413300-005	0.00018	0.0042	0.0204	0.000045	0.00003	0.011	0.0000364	15.7	0.000005	0.00157	0.000510	0.0032	0.574	0.000095	0.0027	4.44	0.07870	0.000012	0.000351	0.00341	0.042
SW-03	2024-05-26	WP2413300-004	0.00018	0.0043	0.0211	0.000041	0.00003	0.012	0.0000344	15.9	0.000005	0.00150	0.000570	0.0032	0.585	0.000115	0.0028	4.35	0.08160	0.000013	0.00035	0.0034	0.049
		Duplicates Averaged	0.00018	0.0043	0.0207500	0.0000430	0.00003	0.012	0.0000354	15.8	0.000005	0.00154	0.000540	0.0032	0.580	0.000105	0.0028	4.40	0.08015	0.000013	0.0003505	0.0034050	0.046
		Relative Percent Difference	0.0	1.2	3.4	8.9	0.0	9.1	5.5	1.3	0.0	4.5	11.8	0.3	1.9	21.1	3.7	2.0	3.7	13.7	0.3	0.3	16.7
SW-03	2024-05-26	TMWATR061924CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-05-26	TMWATR061924CH1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.031	0.74
CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.026	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.029	0.74
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.1	-
CR-REF	2022-03-08	-	-	1.57	-	0.00012	1.87	0.000025	4.80	0.0361	3.0	-	0.0000025	-	0.00016	0.00018	0.00038	0.000089	0.00032	-	0.012	0.001	-	-
CR-REF	2022-03-08	-	-	1.40	-	0.00008	1.65	0.000025	3.70	0.0320	3.0	-	0.000005	-	0.00006	0.00124	0.00026	0.000068	0.00026	-	0.017	0.001	-	-
Duplicates Averaged			-	1.49	-	0.00010	1.76	0.000025	4.25	0.0341	3.0	-	0.0000038	-	0.00011	0.00071	0.00032	0.0001	0.00029	-	0.015	0.001	-	-
Relative Percent Difference			-	10.8	-	33.3	11.8	0.0	22.9	11.4	0.0	-	100.0	-	62.5	588.9	31.6	23.6	18.8	-	41.7	0.0	-	-
CR-REF	2022-04-26	CA15019-MAY22	-	0.96	-	0.00011	1.48	0.000025	2.37	0.0305	2.0	-	0.0000025	-	0.00003	0.00061	0.00003	0.000072	0.00030	-	0.001	0.001	-	-
CR-REF	2022-04-26	CA15019-MAY22	-	0.97	-	0.00007	1.57	0.000025	2.35	0.0294	2.0	-	0.0000025	-	0.00003	0.00003	0.00003	0.000073	0.00018	-	0.001	0.001	-	-
Duplicates Averaged			-	0.96	-	0.00009	1.53	0.000025	2.36	0.0300	2.0	-	0.0000025	-	0.00003	0.00032	0.00003	0.0000725	0.00024	-	0.001	0.001	-	-
Relative Percent Difference			-	1.3	-	36.4	6.1	0.0	0.8	3.6	0.0	-	0.0	-	0.0	95.9	0.0	1.4	40.0	-	0.0	0.0	-	-
CR-REF	2024-01-24	TMWATR013124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.53
CR-REF	2024-01-24	TMWATR013124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.52
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.53
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9
CR-FDP	2024-01-16	TMWATR012524JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.20
CR-FDP	2024-01-16	TMWATR012524JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.40
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.3
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8
CR-FDP	2024-01-16	MTWATR020924JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.657	-
CR-FDP	2024-01-16	MTWATR020924JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.611	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.634	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.0	-
CR-FDP	2024-02-10	TMWATR022824CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.95
CR-FDP	2024-02-10	TMWATR022824CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.88
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.92
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.6
CR-FDP	2024-02-10	MTWATR030824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.084	-
CR-FDP	2024-02-10	MTWATR030824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.085	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.085	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-
CR-FDP	2024-03-08	MTWATR032124JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.033	-
CR-FDP	2024-03-08	MTWATR032124JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.032	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.033	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	-
CR-FDP	2024-08-06	WP2419247-002	-	0.96	0.00184	0.00009	1.60	0.000005	2.48	0.0311	1.9	0.0001	0.000005	0.00005	0.00005	0.00079	0.00005	0.000109	0.00054	-	0.0005	0.00015	-	-
CR-FDP-DUP	2024-08-06	WP2419247-003	-	0.95	0.0018	0.00011	1.58	0.000005	2.42	0.0308	2.0	0.0001	0.000005	0.00005	0.00005	0.00076	0.00005	0.000115	0.00054	-	0.0019	0.00015	-	-
Duplicates Averaged			-	0.95	0.0018	0.0001	1.59	0.000005	2.45	0.0310	2.0	0.0001	0.000005	0.00005	0.00005	0.00078	0.00005	0.0001120	0.00054	-	0.0012	0.00015	-	-
Relative Percent Difference			-	0.1	2.2	23.0	1.3	0.0	2.4	1.0	4.7	0.0	0.0	0.0	0.0	3.8	0.0	5.5	0.0	-	280.0	0.0	-	-
SW-03	2024-05-26	WP2413300-005	-	4.06	0.00221	0.00031	5.17	0.000005	1.77	0.0327	0.6	0.0001	0.000005	0.00044	0.00005	0.00926	0.00005	0.000329	0.00204	-	0.0041	0.0017	-	-
SW-03	2024-05-26	WP2413300-004	-	4.12	0.00218	0.00027	5.09	0.000005	1.78	0.0331	0.6	0.0001	0.000005	0.00043	0.00005	0.00984	0.00005	0.000315	0.00207	-	0.0043	0.0017	-	-
Duplicates Averaged			-	4.09	0.0022	0.00029	5.13	0.000005	1.78	0.0329	0.6	0.0001	0.000005	0.00044	0.00005	0.00955	0.00005	0.0003220	0.00206	-	0.0042	0.0017	-	-
Relative Percent Difference			-	1.5	1.4	12.6	1.5	0.0	0.6	1.2	4.8	0.0	0.0	2.3	0.0	6.3	0.0	4.3	1.5	-	4.9	0.0	-	-
SW-03	2024-05-26	TMWATR061924CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.40
SW-03	2024-05-26	TMWATR061924CH1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.90
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.15
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.72
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.30
SW-03	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.00

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2024-01-12	WP2401043-005	7.07	7.16	0.05	4.9	48.3	48.3	0.5	0.5	0.5	52.3	51.2	-	16.3	82.3	3.0	99.0
SW-04	2024-01-12	WP2401043-006	7.07	7.08	-	4.8	49.0	49.0	-	-	-	53.0	52.0	-	17.7	78.7	3.4	102.0
Duplicates Averaged			7.07	7.12	0.05	4.9	48.7	48.7	0.5	0.5	0.5	52.7	51.6	-	17.0	80.5	3.2	100.5
Relative Percent Difference			0.0	1.1	-	2.0	1.4	1.4	-	-	-	1.3	1.6	-	8.6	4.4	13.3	3.0
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-12-14	CA15297-DEC22	6.87	7.35	0.15	1.0	-	-	40.0	-	-	43.5	41.9	19.0	6.0	103.0	6.0	74.0
SW-08	2022-12-14	CA15297-DEC22	6.87	7.42	0.15	1.0	-	-	41.0	-	-	43.6	51.4	19.0	6.0	97.0	6.0	74.0
Duplicates Averaged			6.87	7.39	0.15	1.0	-	-	40.5	-	-	43.6	46.7	19.0	6.0	100.0	6.0	74.0
Relative Percent Difference			0.0	1.0	0.0	0.0	-	-	2.5	-	-	0.2	22.7	0.0	0.0	5.8	0.0	0.0
SW-08	2024-03-13	TMWATR032024CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	TMWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	6.62	7.40	22.7	4.1	30.7	30.7	0.5	0.5	0.5	35.0	36.6	-	27.5	68.2	8.2	70.3
Duplicates Averaged			6.62	7.40	22.7	4.1	30.7	30.7	0.5	0.5	0.5	35.0	36.6	-	27.5	68.2	8.2	70.3
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465-006	6.61	7.70	13.1	3.0	42.0	42.0	0.5	0.5	0.5	48.2	45.3	-	23.0	94.2	10.0	89.9
SW-08	2024-09-03	WP2421465-002	6.61	7.56	13.1	3.0	41.8	41.8	0.5	0.5	0.5	49.2	43.0	-	21.8	87.2	11.1	89.8
Duplicates Averaged			6.61	7.63	13.10	3.0	41.9	41.9	0.5	0.5	0.5	48.7	44.2	-	22.4	90.7	10.6	89.9
Relative Percent Difference			0.0	1.8	0.0	0.0	0.5	0.5	0.0	0.0	0.0	2.1	5.1	-	5.2	7.4	11.0	0.1
SW-08	2024-10-02	TMWATR102824ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-10-02	TMWATR102824ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2024-01-12	WP2401043-005	-	0.4	-	0.8	-	0.0005	0.04	0.002	0.07	0.07	0.02	-	-	0.0005	0.0005	0.0005	0.145	0.00015
SW-04	2024-01-12	WP2401043-006	-	0.8	-	1.0	0.0339	-	0.03	0.002	0.08	0.08	0.03	-	-	-	-	-	0.144	-
Duplicates Averaged			-	0.6	-	0.9	0.0339	0.0005	0.04	0.002	0.07	0.07	0.03	-	-	0.0005	0.0005	0.0005	0.145	0.00015
Relative Percent Difference			-	85.4	-	20.7	-	-	13.3	16.7	19.6	19.6	0.8	-	-	-	-	-	0.7	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-12-14	CA15297-DEC22	-	0.5	0.11	1.0	-	-	0.05	0.015	0.09	0.09	-	-	62.0	0.005	0.0025	0.005	0.246	0.00045
SW-08	2022-12-14	CA15297-DEC22	0.045	1.0	0.07	10.0	-	-	0.05	0.015	0.13	0.13	-	18.77	56.0	0.005	0.0025	0.005	0.250	0.00045
Duplicates Averaged			0.05	0.8	0.09	5.5	-	-	0.05	0.015	0.11	0.11	-	18.77	59.0	0.005	0.003	0.005	0.248	0.00045
Relative Percent Difference			-	100.0	36.4	900.0	-	-	0.0	0.0	44.4	44.4	-	-	9.7	0.0	0.0	0.0	1.6	0.0
SW-08	2024-03-13	TMWATR032024CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	TMWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	-	0.2	-	0.6	-	0.0005	0.05	0.001	0.02	0.02	0.04	-	-	0.0012	0.001	0.0011	0.168	0.00005
Duplicates Averaged			-	0.2	-	0.6	-	0.0005	0.05	0.001	0.02	0.02	0.04	-	-	0.0012	0.001	0.0011	0.168	0.00005
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465-006	-	0.5	-	0.8	-	0.0005	0.04	0.003	0.12	0.12	0.04	-	-	0.0012	0.0018	0.0016	0.335	0.00005
SW-08	2024-09-03	WP2421465-002	-	0.5	-	0.8	-	0.0005	0.04	0.003	0.12	0.12	0.04	-	-	0.0005	0.0005	0.0005	0.468	0.00005
Duplicates Averaged			-	0.5	-	0.8	-	0.0005	0.04	0.003	0.12	0.12	0.04	-	-	0.0009	0.0012	0.0010500	0.402	0.00005
Relative Percent Difference			-	2.2	-	0.0	-	0.0	2.8	3.4	0.9	0.8	1.4	-	-	58.3	72.2	68.8	39.7	0.0
SW-08	2024-10-02	TMWATR102824ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-10-02	TMWATR102824ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2024-01-12	WP2401043-005	0.0016	0.0122	0.00001	0.000025	0.005	0.000003	14.2	0.000015	0.0005	0.000150	0.0011	0.361	0.000130	0.0020	4.09	0.02440	0.0000025	0.00026	0.00065	0.025	0.015
SW-04	2024-01-12	WP2401043-006	0.0017	0.0120	-	-	-	-	14.3	0.000012	0.0005	0.000130	0.0010	0.337	0.000130	0.0020	4.20	0.02490	-	0.00024	0.00066	-	-
Duplicates Averaged			0.0016	0.0121	0.0000100	0.000025	0.005	0.000003	14.3	0.0000135	0.0005	0.000140	0.0010	0.35	0.000130	0.0020	4.15	0.02465	0.0000025	0.00025	0.0006550	0.025	0.0150000
Relative Percent Difference			4.4	1.6	-	-	-	-	0.7	20.0	11.8	13.3	4.7	6.6	0.0	0.0	2.69	2.0	-	4.3	1.5	-	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-12-14	CA15297-DEC22	0.0022	0.0112	0.000022	0.000005	0.005	0.000003	12.0	-	0.0008	0.000175	0.0012	0.75	0.000280	-	3.25	0.02410	0.000005	0.00030	0.0009	0.028	-
SW-08	2022-12-14	CA15297-DEC22	0.0021	0.0108	0.000022	0.000005	0.005	0.000004	12.0	-	0.0008	0.000179	0.0012	0.76	0.000310	-	3.28	0.02390	0.000005	0.00106	0.0009	0.028	-
Duplicates Averaged			0.0022	0.0110	0.0000220	0.000005	0.005	0.000004	12.0	-	0.0008	0.000177	0.0012	0.76	0.0003	-	3.27	0.024	0.000005	0.00068	0.0009	0.028	-
Relative Percent Difference			4.5	3.6	0.0	0.0	0.0	33.3	0.0	-	6.0	2.3	0.0	1.3	10.7	-	0.92	0.8	0.0	253.3	0.0	0.0	-
SW-08	2024-03-13	TMWATR032024CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	TMWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	TMWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	-	-	-	-	-	-	-	-	0.0006	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	0.0026	0.0107	0.00001	0.000025	0.005	0.000003	9.1	0.000014	0.0006	0.000160	0.0009	0.578	0.000102	0.0014	3.00	0.04210	0.0000025	0.00016	0.00058	0.025	0.034
Duplicates Averaged			0.0026	0.0107	0.0000100	0.000025	0.005	0.000003	9.1	0.000014	0.0006	0.00016	0.0009	0.578	0.000102	0.0014	3.00	0.04210	0.0000025	0.00016	0.0005800	0.025	0.0340
Relative Percent Difference			-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465-006	0.0034	0.0118	0.000027	0.000025	0.005	0.000003	13.2	0.000036	0.0008	0.000250	0.0011	0.76	0.000238	0.0031	3.71	0.03970	0.0000025	0.00021	0.00098	0.025	0.015
SW-08	2024-09-03	WP2421465-002	0.0034	0.0124	0.000026	0.000025	0.005	0.000006	13.5	0.000056	0.0011	0.000300	0.0012	0.931	0.000304	0.0031	3.77	0.04160	0.0000025	0.00023	0.0012	0.025	0.041
Duplicates Averaged			0.0034	0.0121	0.0000265	0.000025	0.005	0.000004	13.4	0.0000460	0.0010	0.000275	0.0011	0.8455000	0.000271	0.0031	3.74	0.04065	0.0000025	0.00022	0.0010900	0.025	0.0280
Relative Percent Difference			1.2	5.1	3.7	0.0	0.0	132.0	2.3	55.6	35.8	20.0	9.3	22.5	27.7	0.0	1.62	4.8	0.0	12.0	22.4	0.0	173.3
SW-08	2024-10-02	TMWATR102824ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-10-02	TMWATR102824ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2024-01-12	WP2401043-005	1.29	0.00231	0.000089	3.54	0.000005	1.93	0.033	0.3	0.0001	0.000005	0.00005	0.00005	0.00595	0.00005	0.000170	0.00081	-	0.004	0.0002	0.036	-
SW-04	2024-01-12	WP2401043-006	1.33	0.00233	0.000128	3.44	-	2.12	0.034	0.6	-	-	-	-	0.00562	-	0.000166	0.00085	-	-	0.0003	0.038	-
Duplicates Averaged			1.31	0.0023200	0.000109	3.49	0.000005	2.03	0.033	0.4	0.0001	0.00001	0.00005	0.00005	0.00579	0.00005	0.000168	0.00083	-	0.004	0.0003	0.037	-
Relative Percent Difference			3.1	0.9	43.8	2.8	-	9.8	5.2	124.0	-	-	-	-	5.5	-	2.4	4.9	-	-	41.7	3.6	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-12-14	CA15297-DEC22	1.11	-	0.00013	1.57	0.000025	1.49	0.030	0.5	-	0.0000025	-	0.00010	0.01030	0.00003	0.000377	0.00123	-	0.001	0.0010	0.070	-
SW-08	2022-12-14	CA15297-DEC22	1.09	-	0.00008	1.56	0.000025	1.48	0.029	0.5	-	0.0000025	-	0.00031	0.01010	0.00003	0.000383	0.00126	-	0.001	0.0010	0.090	-
Duplicates Averaged			1.10	-	o	1.57	0.000025	1.49	0.029	0.5	-	0.0000025	-	0.00021	0.01020	0.00003	0.000380	0.00125	-	0.001	0.0010	0.080	-
Relative Percent Difference			1.8	-	38.5	0.6	0.0	0.7	2.4	0.0	-	0.0	-	210.0	1.9	0.0	1.6	2.4	-	0.0	0.0	28.6	-
SW-08	2024-03-13	TMWATR032024CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	TMWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	TMWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	0.82	0.00189	0.000098	1.46	0.000005	1.44	0.023	0.3	0.0001	0.000005	0.00005	0.00005	0.00668	0.00005	0.000192	0.00100	-	0.002	0.0004	0.080	-
Duplicates Averaged			0.82	0.0018900	0.000098	1.46	0.000005	1.44	0.023	0.3	0.0001000	0.0000050	0.000050	0.00005	0.00668	0.00005	0.000192	0.00100	-	0.002	0.0004	0.080	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465-006	0.97	0.00233	0.000061	2.84	0.000005	1.80	0.030	0.3	0.0001	0.000005	0.00011	0.00005	0.01440	0.00005	0.000266	0.00136	-	0.002	0.0005	0.048	-
SW-08	2024-09-03	WP2421465-002	1.02	0.00258	0.000122	3.01	0.000005	1.86	0.031	0.3	0.0001	0.000005	0.00005	0.00005	0.02090	0.00005	0.000268	0.00161	-	0.024	0.0005	0.030	-
Duplicates Averaged			1.00	0.0025	0.000092	2.93	0.000005	1.83	0.030	0.3	0.0001000	0.0000050	0.000080	0.00005	0.01765	0.00005	0.000267	0.00149	-	0.013	0.0005	0.039	-
Relative Percent Difference			5.2	10.7	100.0	6.0	0.0	3.3	1.7	0.0	0.0	0.0	54.5	0.0	45.1	0.0	0.8	18.4	-	1480.0	4.2	37.7	-
SW-08	2024-10-02	TMWATR102824ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-10-02	TMWATR102824ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	TMWATR091224CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-08-10	MTWATR091824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2024-01-12	WP2401043-005	0.00005	0.0016	0.0113	0.00001	0.00003	0.005	0.0000025	13.9	0.000005	0.00022	0.000100	0.0008	0.219	0.000067	0.0014	4.00	0.01980	0.000003	0.00023	0.00025	0.015
SW-04	2024-01-12	WP2401043-006	-	0.0016	0.0119	-	-	-	-	14.0	-	0.00021	0.000100	0.0009	0.223	0.000069	0.0014	4.14	0.02050	-	0.000224	0.00053	-
Duplicates Averaged			0.00005	0.0016	0.0116000	0.0000100	0.00003	0.005	0.0000025	14.0	0.0000050	0.00022	0.000100	0.0008	0.221	0.000068	0.0014	4.07	0.02015	0.000003	0.0002270	0.0003900	0.015
Relative Percent Difference			-	0.6	5.3	-	-	-	-	0.7	-	4.5	0.0	18.4	1.8	3.0	0.0	3.5	3.5	-	2.6	112.0	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2022-12-14	CA15297-DEC22	0.00045	0.0018	0.00962	0.000011	0.00001	0.005	0.000005	11.7	-	0.00052	0.000086	0.0011	0.495	0.000220	-	3.10	0.01530	-	0.00024	0.0008	0.018
SW-08	2022-12-14	CA15297-DEC22	0.00045	0.0021	0.0118	0.000009	0.00001	0.006	0.000006	14.3	-	0.00053	0.000114	0.0013	0.595	0.000260	-	3.79	0.01820	-	0.00041	0.0009	0.025
Duplicates Averaged			0.00045	0.0020	0.0107100	0.0000100	0.00001	0.006	0.0000055	13.0	-	0.00053	0.000100	0.0012	0.545	0.000240	-	3.45	0.01675	-	0.0003250	0.0008500	0.022
Relative Percent Difference			0.0	16.7	22.7	18.2	0.0	20.0	20.0	22.2	-	1.9	32.6	18.2	20.2	18.2	-	22.3	19.0	-	70.8	12.5	38.9
SW-08	2024-03-13	TMWATR032024CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	TMWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-03-13	MTWATR032124JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	-	-	-	-	-	-	-	-	-	0.00041	-	-	-	-	-	-	-	-	-	-	0.015
SW-08	2024-07-08	WP2417256-004	0.00005	0.0025	0.0104	0.00001	0.00003	0.005	0.0000025	9.6	0.000005	0.00025	0.000130	0.0009	0.444	0.000078	0.0014	3.04	0.07180	0.000003	0.000198	0.00071	0.025
Duplicates Averaged			0.00005	0.0025	0.0104000	0.0000100	0.00003	0.005	0.0000025	9.6	0.0000050	0.00033	0.000130	0.0009	0.444	0.000078	0.0014	3.04	0.07180	0.000003	0.000198	0.00071	0.020
Relative Percent Difference			-	-	-	-	-	-	-	-	-	39.0	-	-	-	-	-	-	-	-	-	-	66.7
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	MTWATR091624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465-006	0.00005	0.0033	0.00961	0.00001	0.00003	0.005	0.0000025	12.4	0.000005	0.00032	0.000100	0.0008	0.420	0.000118	0.0014	3.48	0.03270	0.000003	0.000212	0.00057	0.025
SW-08	2024-09-03	WP2421465-002	0.00005	0.0031	0.00939	0.00001	0.00003	0.005	0.0000025	11.6	0.000005	0.00025	0.000050	0.0008	0.338	0.000088	0.0014	3.42	0.03240	0.000003	0.000216	0.00063	0.025
Duplicates Averaged			0.00005	0.0032	0.0095000	0.0000100	0.00003	0.005	0.0000025	12.0	0.0000050	0.00029	0.000075	0.0008	0.379	0.000103	0.0014	3.45	0.03255	0.000003	0.0002140	0.0006000	0.025
Relative Percent Difference			0.0	6.0	2.3	0.0	0.0	0.0	0.0	6.5	0.0	21.9	50.0	2.6	19.5	25.4	0.0	1.7	0.9	0.0	1.9	10.5	0.0
SW-08	2024-10-02	TMWATR102824ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-10-02	TMWATR102824ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.15
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1
SW-03	2024-08-10	TMWATR091224CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.60
SW-03	2024-08-10	TMWATR091224CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.90
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.75
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2
SW-03	2024-08-10	MTWATR091824JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.392	-
SW-03	2024-08-10	MTWATR091824JS1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.396	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.394	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-
SW-04	2024-01-12	WP2401043-005	-	1.20	0.00208	0.00010	2.98	0.000005	1.78	0.0326	0.6	0.0001	0.000005	0.00005	0.00005	0.00114	0.00005	0.000152	0.00025	-	0.001	0.000	-	-
SW-04	2024-01-12	WP2401043-006	-	1.22	0.00209	0.00012	3.03	-	1.88	0.0319	0.5	-	-	-	-	0.00112	-	0.000153	-	-	0.001	-	-	-
Duplicates Averaged			-	1.21	0.00209	0.00011	3.01	0.000005	1.83	0.0323	0.5	0.00010	0.0000050	0.00005	0.00005	0.00113	0.00005	0.0001525	0.00025	-	0.001	0.000	-	-
Relative Percent Difference			-	1.7	0.5	17.8	1.7	-	5.6	2.1	12.1	-	-	-	-	1.8	-	0.7	-	-	160.0	-	-	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.102	-
SW-08	2022-08-25	ITWATR092022JS1-111700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.103	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.103	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-
SW-08	2022-12-14	CA15297-DEC22	-	1.03	-	0.00015	1.19	0.000025	1.46	0.0280	0.5	-	0.0000025	-	0.00008	0.00318	0.00004	0.000354	0.00080	-	0.001	0.001	-	-
SW-08	2022-12-14	CA15297-DEC22	-	1.28	-	0.00016	1.50	0.000025	1.78	0.0349	0.5	-	0.0000025	-	0.00013	0.00380	0.00004	0.000488	0.00098	-	0.002	0.001	-	-
Duplicates Averaged			-	1.16	-	0.00016	1.35	0.000025	1.62	0.0315	0.5	-	0.0000025	-	0.00011	0.00349	0.00004	0.0004210	0.00089	-	0.002	0.001	-	-
Relative Percent Difference			-	24.3	-	6.7	26.1	0.0	21.9	24.6	0.0	-	0.0	-	62.5	19.5	0.0	37.9	22.5	-	100.0	0.0	-	-
SW-08	2024-03-13	TMWATR032024CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.88
SW-08	2024-03-13	TMWATR032024CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.89
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.89
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5
SW-08	2024-03-13	MTWATR032124JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.088	-
SW-08	2024-03-13	MTWATR032124JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.086	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.087	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-
SW-08	2024-07-08	WP2417256-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	WP2417256-004	-	0.82	0.00173	0.00009	1.35	0.000005	1.47	0.0233	0.3	0.0001	0.000005	0.00005	0.00005	0.00219	0.00005	0.000198	0.00078	-	0.001	0.000	-	-
Duplicates Averaged			-	0.82	0.00173	0.00009	1.35	0.000005	1.47	0.0233	0.3	0.00010	0.0000050	0.000050	0.00005	0.00219	0.00005	0.0001980	0.00078	-	0.001	0.000	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.32
SW-08	2024-07-08	TMWATR072524CH2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.34
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.33
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6
SW-08	2024-08-04	MTWATR091624JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.163	-
SW-08	2024-08-04	MTWATR091624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.160	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.162	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
SW-08	2024-09-03	WP2421465-006	0.015	0.93	0.00176	0.00018	2.06	0.000005	1.55	0.0286	0.3	0.0001	0.000005	0.00005	0.00005	0.00231	0.00005	0.000217	0.00076	-	0.001	0.000	-	-
SW-08	2024-09-03	WP2421465-002	-	0.93	0.0018	0.00015	2.02	0.000005	1.58	0.0280	0.8	0.0001	0.000005	0.00005	0.00005	0.00121	0.00005	0.000234	0.00069	-	0.001	0.000	-	-
Duplicates Averaged			0.01500	0.93	0.00178	0.00016	2.04	0.000005	1.57	0.0283	0.5	0.00010	0.0000050	0.00005	0.00005	0.00176	0.00005	0.0002255	0.00073	-	0.001	0.000	-	-
Relative Percent Difference			-	0.3	2.3	15.3	1.9	0.0	1.9	2.1	216.0	0.0	0.0	0.0	0.0	47.6	0.0	7.8	9.2	-	140.0	15.8	-	-
SW-08	2024-10-02	TMWATR102824ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.44
SW-08	2024-10-02	TMWATR102824ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.55
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.50
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
SW-08	2024-12-01	WP2426900-008	7.41	7.42	7.41	2.3	36.1	36.1	0.5	0.5	0.5	41.3	30.4	-	22.3	92.2	5.1	79.7
SW-08	2024-12-01	WP2426900-004	7.41	7.41	0	2.4	36.7	36.7	0.5	0.5	0.5	36.3	32.8	-	25.1	92.2	3.8	79.6
Duplicates Averaged			7.41	7.42	3.71	2.4	36.4	36.4	0.5	0.5	0.5	38.8	31.6	-	23.7	92.2	4.5	79.7
Relative Percent Difference			0.0	0.1	100.0	4.3	1.7	1.7	0.0	0.0	0.0	12.1	7.9	-	12.6	0.0	25.5	0.1
SW-09	2024-09-08	MTWATR100124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-09	2024-09-08	MTWATR100124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2024-05-02	WP2402956-001	6.83	7.17	1.7	7.7	70.1	70.1	0.5	0.5	0.5	80.1	71.0	-	17.9	95.7	4.8	150.0
SW-15	2024-05-02	WP2402956-005	6.83	7.23	1.7	6.5	71.3	71.3	0.5	0.5	0.5	80.9	72.6	-	18.4	99.3	4.6	152.0
Duplicates Averaged			6.83	7.20	1.70	7.1	70.7	70.7	0.5	0.5	0.5	80.5	71.8	-	18.2	97.5	4.7	151.0
Relative Percent Difference			0.0	0.8	0.0	15.6	1.7	1.7	0.0	0.0	0.0	1.0	2.3	-	2.8	3.8	4.2	1.3
SW-15	2024-05-21	WP2412814-002	7.23	7.38	13.7	1.0	36.1	36.1	0.5	0.5	0.5	44.7	40.4	-	23.2	75.0	8.6	80.2
SW-15	2024-05-21	WP2412814-007	7.23	7.40	13.7	1.0	36.7	36.7	0.5	0.5	0.5	44.2	42.6	-	24.1	75.7	7.7	79.8
Duplicates Averaged			7.23	7.39	13.70	1.0	36.4	36.4	0.5	0.5	0.5	44.5	41.5	-	23.7	75.4	8.2	80.0
Relative Percent Difference			0.0	0.3	0.0	0.0	1.7	1.7	0.0	0.0	0.0	1.1	5.4	-	3.9	0.9	10.5	0.5
SW-08A	2024-05-21	TMWATR061924CH1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	TMWATR061924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	WP2424082-004	6.15	7.32	4.14	5.2	59.6	59.6	0.5	0.5	0.5	72.4	70.4	-	37.5	139.0	5.5	122.0
SW-10	2024-10-10	WP2424082-003	6.15	7.31	4.14	4.8	59.7	59.7	0.5	0.5	0.5	71.5	68.3	-	36.8	142.0	5.3	121.0
Duplicates Averaged			6.15	7.32	4.14	5.0	59.7	59.7	0.5	0.5	0.5	72.0	69.4	-	37.2	140.5	5.4	121.5
Relative Percent Difference			0.0	0.1	0.0	7.7	0.2	0.2	0.0	0.0	0.0	1.2	3.0	-	1.9	2.2	3.6	0.8
SW-10	2024-10-10	MTWATR112624JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	MTWATR112624JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-10-05	WP2423572-005	7.31	7.77	8.6	4.1	57.8	57.8	0.5	0.5	0.5	60.8	58.8	-	20.7	102.0	5.6	119.0
SW-GL02	2024-10-05	WP2423572-004	7.31	7.78	8.6	4.2	58.2	58.2	0.5	0.5	0.5	60.7	59.6	-	20.5	98.5	4.4	119.0
Duplicates Averaged			7.31	7.78	8.60	4.2	58.0	58.0	0.5	0.5	0.5	60.8	59.2	-	20.6	100.3	5.0	119.0
Relative Percent Difference			0.0	0.1	0.0	2.4	0.7	0.7	0.0	0.0	0.0	0.2	1.4	-	1.0	3.4	21.4	0.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
SW-08	2024-12-01	WP2426900-008	-	0.3	-	0.7	-	0.0005	0.02	0.001	0.07	0.07	0.03	-	-	0.0005	0.0005	0.0005	0.182	0.00005
SW-08	2024-12-01	WP2426900-004	-	0.3	-	0.7	-	0.0005	0.02	0.001	0.08	0.08	0.03	-	-	0.0005	0.0005	0.0005	0.166	0.00005
Duplicates Averaged			-	0.3	-	0.7	-	0.0005	0.02	0.001	0.08	0.08	0.03	-	-	0.00050	0.00050	0.00050	0.174	0.00005
Relative Percent Difference			-	3.2	-	7.4	-	0.0	9.2	120.0	4.9	6.3	0.4	-	-	0.0	0.0	0.0	8.8	0.0
SW-09	2024-09-08	MTWATR100124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-09	2024-09-08	MTWATR100124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2024-05-02	WP2402956-001	-	0.8	-	1.3	-	0.0005	0.04	0.001	0.07	0.08	0.02	-	-	0.0005	0.0005	0.0005	0.240	0.00005
SW-15	2024-05-02	WP2402956-005	-	0.9	-	1.6	-	0.0005	0.06	0.001	0.07	0.07	0.02	-	-	0.0053	0.0005	0.0005	0.240	0.00017
Duplicates Averaged			-	0.8	-	1.5	-	0.0005	0.05	0.001	0.07	0.07	0.02	-	-	0.0029000	0.0005000	0.0005000	0.240	0.00011
Relative Percent Difference			-	12.7	-	26.2	-	0.0	58.0	54.5	2.2	3.6	4.4	-	-	960.0	0.0	0.0	0.0	240.0
SW-15	2024-05-21	WP2412814-002	-	0.6	-	0.9	-	0.0005	0.01	0.001	0.01	0.01	0.04	-	-	0.0005	0.0005	0.0005	0.665	0.00005
SW-15	2024-05-21	WP2412814-007	-	0.6	-	0.8	-	0.0005	0.01	0.001	0.01	0.01	0.03	-	-	0.0005	0.0005	0.0005	0.670	0.00005
Duplicates Averaged			-	0.6	-	0.9	-	0.0005	0.01	0.001	0.01	0.01	0.03	-	-	0.0005000	0.0005000	0.0005000	0.668	0.00005
Relative Percent Difference			-	6.5	-	3.4	-	0.0	59.3	0.0	14.2	14.2	1.4	-	-	0.0	0.0	0.0	0.8	0.0
SW-08A	2024-05-21	TMWATR061924CH1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	TMWATR061924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	WP2424082-004	-	0.3	-	0.5	-	0.0005	0.02	0.001	0.01	0.01	0.02	-	-	0.001	0.0012	0.0005	0.203	0.00005
SW-10	2024-10-10	WP2424082-003	-	0.3	-	0.5	-	0.0005	0.03	0.001	0.01	0.01	0.02	-	-	0.0005	0.0011	0.0005	0.180	0.00005
Duplicates Averaged			-	0.3	-	0.5	-	0.0005	0.03	0.001	0.01	0.01	0.02	-	-	0.0007500	0.0011500	0.0005000	0.192	0.00005
Relative Percent Difference			-	0.0	-	0.0	-	0.0	23.7	0.0	6.8	6.8	7.9	-	-	50.0	8.3	0.0	11.3	0.0
SW-10	2024-10-10	MTWATR112624JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	MTWATR112624JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-10-05	WP2423572-005	-	0.5	-	1.2	-	0.0005	0.01	0.001	0.07	0.07	0.03	-	-	0.0005	0.0005	0.0005	0.097	0.00005
SW-GL02	2024-10-05	WP2423572-004	-	0.5	-	1.2	-	0.0005	0.01	0.001	0.07	0.07	0.03	-	-	0.0005	0.0005	0.0005	0.105	0.00005
Duplicates Averaged			-	0.5	-	1.2	-	0.0005	0.01	0.001	0.07	0.07	0.03	-	-	0.0005000	0.0005000	0.0005000	0.101	0.00005
Relative Percent Difference			-	0.0	-	0.8	-	0.0	6.8	0.0	2.2	2.2	29.9	-	-	0.0	0.0	0.0	7.9	0.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
SW-08	2024-12-01	WP2426900-008	0.0020	0.0135	0.00001	0.000025	0.005	0.000009	10.9	0.000012	0.0005	0.000130	0.0010	0.53	0.000182	0.0017	3.42	0.01360	0.0000025	0.00021	0.00716	-	0.015
SW-08	2024-12-01	WP2426900-004	0.0020	0.0133	0.00001	0.000025	0.005	0.000003	10.4	0.000019	0.0005	0.000140	0.0009	0.523	0.000191	0.0005	2.51	0.01310	0.0000025	0.00018	0.00067	-	0.015
Duplicates Averaged			0.0020	0.0134	0.0000100	0.000025	0.005	0.000006	10.7	0.0000155	0.0005	0.000135	0.0010	0.5265000	0.000187	0.0011	2.97	0.01335	0.0000025	0.00020	0.0039150	-	0.0150000
Relative Percent Difference			0.0	1.5	0.0	0.0	0.0	72.2	4.6	58.3	9.3	7.7	9.0	1.3	4.9	70.6	26.61	3.7	0.0	16.4	90.6	-	0.0
SW-09	2024-09-08	MTWATR100124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-09	2024-09-08	MTWATR100124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2024-05-02	WP2402956-001	0.0018	0.0163	0.00001	0.000025	0.010	0.000003	21.6	0.000024	0.0005	0.000210	0.0009	0.587	0.000132	0.0042	6.36	0.05180	0.0000025	0.00046	0.00087	0.025	0.03
SW-15	2024-05-02	WP2402956-005	0.0017	0.0163	0.00001	0.000025	0.005	0.000005	22.2	0.000021	0.0005	0.000210	0.0012	0.571	0.000137	0.0042	6.19	0.05050	0.0000025	0.00045	0.00097	0.025	0.033
Duplicates Averaged			0.0017	0.0163	0.0000100	0.000025	0.008	0.000004	21.9	0.0000225	0.0005	0.000210	0.0011	0.5790000	0.000135	0.0042	6.28	0.05115	0.0000025	0.00045	0.0009200	0.025	0.0315000
Relative Percent Difference			1.1	0.0	0.0	0.0	50.0	116.0	2.8	12.5	3.7	0.0	25.8	2.7	3.8	0.0	2.67	2.5	0.0	0.7	11.5	0.0	10.0
SW-15	2024-05-21	WP2412814-002	0.0022	0.0136	0.000022	0.000025	0.005	0.000006	11.5	0.000068	0.0014	0.000310	0.0015	0.947	0.000253	0.0024	3.88	0.03040	0.0000025	0.00028	0.00134	0.025	0.041
SW-15	2024-05-21	WP2412814-007	0.0022	0.0133	0.000026	0.000025	0.005	0.000010	11.4	0.000066	0.0014	0.000280	0.0014	0.908	0.000231	0.0024	3.83	0.02860	0.0000025	0.00030	0.00134	0.025	0.049
Duplicates Averaged			0.0022	0.0135	0.0000240	0.000025	0.005	0.000008	11.5	0.0000670	0.0014	0.000295	0.0015	0.9275000	0.000242	0.0024	3.86	0.02950	0.0000025	0.00029	0.0013400	0.025	0.0450000
Relative Percent Difference			1.4	2.2	18.2	0.0	0.0	48.4	0.9	2.9	3.7	9.7	2.0	4.1	8.7	0.0	1.29	5.9	0.0	4.2	0.0	0.0	19.5
SW-08A	2024-05-21	TMWATR061924CH1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	TMWATR061924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	WP2424082-004	0.0025	0.0129	0.00001	0.000025	0.005	0.000003	18.6	0.000015	0.0007	0.000190	0.0007	0.6	0.000102	0.0024	6.31	0.02080	0.0000025	0.00044	0.0012	-	0.015
SW-10	2024-10-10	WP2424082-003	0.0026	0.0129	0.00001	0.000025	0.005	0.000003	18.5	0.000016	0.0007	0.000180	0.0007	0.586	0.000104	0.0026	6.15	0.02100	0.0000025	0.00039	0.00123	-	0.015
Duplicates Averaged			0.0026	0.0129	0.0000100	0.000025	0.005	0.000003	18.6	0.0000155	0.0007	0.000185	0.0007	0.5930000	0.000103	0.0025	6.23	0.02090	0.0000025	0.00041	0.00122	-	0.0150000
Relative Percent Difference			2.0	0.0	0.0	0.0	0.0	0.0	0.5	6.7	1.5	5.3	5.6	2.3	2.0	8.3	2.54	1.0	0.0	10.8	2.5	-	0.0
SW-10	2024-10-10	MTWATR112624JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	MTWATR112624JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-10-05	WP2423572-005	0.0031	0.0094	0.00001	0.000025	0.005	0.000009	18.0	0.000016	0.0005	0.000260	0.0003	1.2	0.000025	0.0036	3.85	0.06060	0.0000025	0.00027	0.00074	-	0.034
SW-GL02	2024-10-05	WP2423572-004	0.0031	0.0094	0.00001	0.000025	0.005	0.000008	18.0	0.000019	0.0006	0.000290	0.0003	1.22	0.000025	0.0035	3.83	0.06330	0.0000025	0.00041	0.00075	-	0.034
Duplicates Averaged			0.0031	0.0094	0.0000100	0.000025	0.005	0.000009	18.0	0.0000175	0.0005	0.000275	0.0003	1.2100000	0.000025	0.0036	3.84	0.06195	0.0000025	0.00034	0.00075	-	0.0340000
Relative Percent Difference			0.3	0.3	0.0	0.0	0.0	5.7	0.0	18.8	5.7	11.5	0.0	1.7	0.0	2.8	0.52	4.5	0.0	49.6	1.4	-	0.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
SW-08	2024-12-01	WP2426900-008	0.91	0.00157	0.000147	2.12	0.000005	1.68	0.026	0.5	0.0001	0.000005	0.00005	0.00005	0.00728	0.00005	0.000211	0.00102	-	0.002	0.0004	0.069	-
SW-08	2024-12-01	WP2426900-004	0.77	0.00173	0.000025	1.71	0.000005	1.28	0.025	0.3	0.0001	0.000005	0.00005	0.00005	0.00716	0.00005	0.000226	0.00090	-	0.002	0.0003	0.062	-
Duplicates Averaged			0.84	0.0016500	0.00009	1.92	0.000005	1.48	0.025	0.4	0.0001000	0.0000050	0.000050	0.00005	0.00722	0.00005	0.000219	0.00096	-	0.002	0.0003	0.065	-
Relative Percent Difference			15.7	10.2	83.0	19.3	0.0	23.8	3.1	51.0	0.0	0.0	0.0	0.0	1.6	0.0	7.1	11.8	-	0.0	19.4	10.5	-
SW-09	2024-09-08	MTWATR100124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-09	2024-09-08	MTWATR100124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2024-05-02	WP2402956-001	1.76	0.00222	0.000108	4.57	0.000005	3.31	0.047	1.0	0.0001	0.000005	0.00005	0.00005	0.00983	0.00005	0.000279	0.00098	-	0.002	0.0003	0.037	-
SW-15	2024-05-02	WP2402956-005	1.75	0.00235	0.000122	4.64	0.000005	2.80	0.044	0.9	0.0001	0.000005	0.00005	0.00005	0.00907	0.00005	0.000286	0.00094	-	0.002	0.0003	0.035	-
Duplicates Averaged			1.76	0.0022850	0.00012	4.61	0.000005	3.06	0.045	0.9	0.0001000	0.0000050	0.000050	0.00005	0.00945	0.00005	0.000283	0.00096	-	0.002	0.0003	0.036	-
Relative Percent Difference			0.6	5.9	13.0	1.5	0.0	15.4	4.9	15.7	0.0	0.0	0.0	0.0	7.7	0.0	2.5	4.1	-	0.0	7.4	4.9	-
SW-15	2024-05-21	WP2412814-002	1.17	0.00255	0.000168	3.25	0.000005	1.82	0.025	0.6	0.0001	0.00001	0.00013	0.00005	0.02830	0.00005	0.000171	0.00176	-	0.002	0.0006	0.106	-
SW-15	2024-05-21	WP2412814-007	1.16	0.00248	0.000139	3.37	0.000005	1.84	0.025	0.3	0.0001	0.000005	0.00012	0.00005	0.02810	0.00005	0.000170	0.00180	-	0.002	0.0007	0.093	-
Duplicates Averaged			1.17	0.0025150	0.00015	3.31	0.000005	1.83	0.025	0.4	0.0001000	0.0000075	0.000125	0.00005	0.02820	0.00005	0.000171	0.00178	-	0.002	0.0007	0.099	-
Relative Percent Difference			0.9	2.7	17.3	3.7	0.0	1.1	2.8	56.1	0.0	50.0	7.7	0.0	0.7	0.0	0.6	2.3	-	0.0	15.9	12.5	-
SW-08A	2024-05-21	TMWATR061924CH1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	TMWATR061924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	WP2424082-004	1.32	0.00177	0.000121	5.37	0.000005	2.24	0.036	0.3	0.0001	0.000005	0.00005	0.00005	0.00771	0.00005	0.000162	0.00072	-	0.002	0.0005	0.108	-
SW-10	2024-10-10	WP2424082-003	1.30	0.0018	0.00005	5.14	0.000005	2.21	0.038	0.3	0.0001	0.000005	0.00005	0.00005	0.00627	0.00005	0.000155	0.00071	-	0.002	0.0005	0.093	-
Duplicates Averaged			1.31	0.00179	0.000086	5.26	0.000005	2.23	0.037	0.3	0.0001000	0.0000050	0.000050	0.00005	0.00699	0.00005	0.000159	0.00072	-	0.002	0.0005	0.100	-
Relative Percent Difference			1.5	1.7	58.7	4.3	0.0	1.3	5.5	0.0	0.0	0.0	0.0	0.0	18.7	0.0	4.3	1.4	-	0.0	2.2	14.3	-
SW-10	2024-10-10	MTWATR112624JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	MTWATR112624JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-10-05	WP2423572-005	1.06	0.00306	0.000025	6.90	0.000005	1.70	0.043	0.6	0.0001	0.000005	0.00005	0.00005	0.00368	0.00005	0.000159	0.00098	-	0.002	0.0003	0.081	-
SW-GL02	2024-10-05	WP2423572-004	1.06	0.00288	0.000053	6.86	0.000005	1.76	0.044	0.6	0.0001	0.000005	0.00005	0.00005	0.00416	0.00005	0.000158	0.00100	-	0.002	0.0003	0.078	-
Duplicates Averaged			1.06	0.00297	0.000039	6.88	0.000005	1.73	0.043	0.6	0.0001000	0.0000050	0.000050	0.00005	0.00392	0.00005	0.000159	0.00099	-	0.002	0.0003	0.079	-
Relative Percent Difference			0.0	5.9	112.0	0.6	0.0	3.5	2.1	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.6	2.0	-	0.0	3.7	3.8	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
SW-08	2024-12-01	WP2426900-008	0.00005	0.0021	0.0131	0.00001	0.00003	0.005	0.0000025	6.9	0.000005	0.00031	0.000050	0.0008	0.320	0.000085	0.0032	3.21	0.01040	0.000003	0.000117	0.00057	-
SW-08	2024-12-01	WP2426900-004	0.00005	0.0020	0.0129	0.00001	0.00003	0.005	0.0000025	8.1	0.000005	0.00032	0.000050	0.0009	0.319	0.000100	0.0016	3.08	0.01020	0.000003	0.000148	0.00055	-
Duplicates Averaged			0.00005	0.0020	0.0130000	0.0000100	0.00003	0.005	0.0000025	7.5	0.0000050	0.00032	0.000050	0.0008	0.320	0.000093	0.0024	3.15	0.01030	0.000003	0.0001325	0.0005600	-
Relative Percent Difference			0.0	4.4	1.5	0.0	0.0	0.0	0.0	17.3	0.0	3.2	0.0	10.0	0.3	17.6	50.0	4.0	1.9	0.0	26.5	3.5	-
SW-09	2024-09-08	MTWATR100124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-09	2024-09-08	MTWATR100124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2024-05-02	WP2402956-001	0.00005	0.0014	0.0136	0.00001	0.00003	0.005	0.0000025	18.4	0.000005	0.00031	0.000140	0.0008	0.296	0.000059	0.0025	6.09	0.04440	0.000003	0.000441	0.00067	0.015
SW-15	2024-05-02	WP2402956-005	0.00005	0.0015	0.0135	0.00001	0.00003	0.005	0.0000025	19.0	0.000005	0.00023	0.000130	0.0007	0.279	0.000056	0.0028	6.11	0.04410	0.000003	0.000419	0.00056	0.015
Duplicates Averaged			0.00005	0.0014	0.0135500	0.0000100	0.00003	0.005	0.0000025	18.7	0.0000050	0.00027	0.000135	0.0008	0.288	0.000058	0.0027	6.10	0.04425	0.000003	0.0004300	0.0006150	0.015
Relative Percent Difference			0.0	5.0	0.7	0.0	0.0	0.0	0.0	3.3	0.0	25.8	7.1	5.1	5.7	5.1	12.0	0.3	0.7	0.0	5.0	16.4	0.0
SW-15	2024-05-21	WP2412814-002	0.00005	0.0019	0.00831	0.00001	0.00003	0.005	0.0000025	10.7	0.000005	0.00037	0.000100	0.0010	0.277	0.000082	0.0018	3.32	0.01840	0.000003	0.000272	0.00068	0.015
SW-15	2024-05-21	WP2412814-007	0.00005	0.0019	0.00805	0.00001	0.00003	0.005	0.0000052	11.1	0.000005	0.00042	0.000110	0.0009	0.299	0.000075	0.0018	3.62	0.01900	0.000003	0.000282	0.00079	0.015
Duplicates Averaged			0.00005	0.0019	0.0081800	0.0000100	0.00003	0.005	0.0000039	10.9	0.0000050	0.00040	0.000105	0.0010	0.288	0.000079	0.0018	3.47	0.01870	0.000003	0.0002770	0.0007350	0.015
Relative Percent Difference			0.0	1.6	3.1	0.0	0.0	0.0	108.0	3.7	0.0	13.5	10.0	4.1	7.9	8.5	0.0	9.0	3.3	0.0	3.7	16.2	0.0
SW-08A	2024-05-21	TMWATR061924CH1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	TMWATR061924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-05-21	MTWATR061024JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08A	2024-11-02	MTWATR120524JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	WP2424082-004	0.00005	0.0026	0.0128	0.000022	0.00003	0.005	0.0000068	18.4	0.000005	0.00047	0.000140	0.0009	0.436	0.000098	0.0033	5.93	0.01880	0.000003	0.000452	0.0012	-
SW-10	2024-10-10	WP2424082-003	0.00005	0.0025	0.0119	0.00001	0.00003	0.005	0.0000025	17.9	0.000005	0.00046	0.000100	0.0006	0.411	0.000059	0.0032	5.74	0.01790	0.000003	0.000388	0.00101	-
Duplicates Averaged			0.00005	0.0025	0.0123500	0.0000160	0.00003	0.005	0.0000047	18.2	0.0000050	0.00047	0.000120	0.0007	0.424	0.000079	0.0033	5.84	0.01835	0.000003	0.0004200	0.0011050	-
Relative Percent Difference			0.0	5.7	7.0	54.5	0.0	0.0	63.2	2.7	0.0	2.1	28.6	38.9	5.7	39.8	3.0	3.2	4.8	0.0	14.2	15.8	-
SW-10	2024-10-10	MTWATR112624JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-10	2024-10-10	MTWATR112624JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	TMWATR091124CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-09-04	MTWATR100124JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-10-05	WP2423572-005	0.00005	0.0030	0.00875	0.00001	0.00003	0.005	0.0000025	16.9	0.000013	0.00057	0.000140	0.0005	1.060	0.000025	0.0020	4.02	0.01790	0.000003	0.000315	0.00077	-
SW-GL02	2024-10-05	WP2423572-004	0.00005	0.0029	0.00881	0.00001	0.00003	0.005	0.000005	17.0	0.000013	0.00057	0.000150	0.0004	1.070	0.000025	0.0020	4.16	0.01800	0.000003	0.000272	0.00081	-
Duplicates Averaged			0.00005	0.0030	0.0087800	0.0000100	0.00003	0.005	0.0000038	17.0	0.0000130	0.00057	0.000145	0.0005	1.065	0.000025	0.0020	4.09	0.01795	0.000003	0.0002935	0.0007900	-
Relative Percent Difference			0.0	2.7	0.7	0.0	0.0	0.0	100.0	0.6	0.0	0.0	7.1	8.3	0.9	0.0	0.0	3.5	0.6	0.0	13.7	5.2	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
SW-08	2024-12-01	WP2426900-008	0.015	0.86	0.00133	0.00010	1.70	0.000005	1.55	0.0160	0.3	0.0001	0.000005	0.00005	0.00005	0.00213	0.00005	0.000144	0.00067	-	0.001	0.000	-	-
SW-08	2024-12-01	WP2426900-004	0.015	0.85	0.0013	0.00006	1.63	0.000005	1.50	0.0189	0.3	0.0001	0.000005	0.00005	0.00005	0.00210	0.00005	0.00017	0.00065	-	0.003	0.000	-	-
Duplicates Averaged			0.0150	0.85	0.00132	0.00008	1.67	0.000005	1.53	0.0175	0.3	0.00010	0.0000050	0.00005	0.00005	0.00212	0.00005	0.0001570	0.00066	-	0.002	0.000	-	-
Relative Percent Difference			0.0	1.2	2.3	40.2	4.1	0.0	3.2	18.1	0.0	0.0	0.0	0.0	0.0	1.4	0.0	18.1	3.0	-	440.0	100.0	-	-
SW-09	2024-09-08	MTWATR100124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.111	-
SW-09	2024-09-08	MTWATR100124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.108	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.110	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-
SW-15	2024-05-02	WP2402956-001	-	1.54	0.00185	0.00012	3.90	0.000005	2.64	0.0398	0.5	-	0.000005	0.00005	0.00005	0.00121	0.00005	0.00027	0.00025	-	0.001	0.000	-	-
SW-15	2024-05-02	WP2402956-005	-	1.55	0.00183	0.00012	3.81	0.000005	2.66	0.0404	0.3	-	0.000005	0.00005	0.00005	0.00116	0.00005	0.000271	0.00025	-	0.002	0.000	-	-
Duplicates Averaged			-	1.55	0.00184	0.00012	3.86	0.000005	2.65	0.0401	0.4	-	0.0000050	0.00005	0.00005	0.00119	0.00005	0.0002705	0.00025	-	0.001	0.000	-	-
Relative Percent Difference			-	0.6	1.1	5.7	2.3	0.0	0.8	1.5	52.8	-	0.0	0.0	0.0	4.1	0.0	0.4	0.0	-	7.1	0.0	-	-
SW-15	2024-05-21	WP2412814-002	-	1.03	0.0014	0.00003	2.06	0.000005	1.73	0.0245	0.3	-	0.000005	0.00005	0.00005	0.00345	0.00005	0.000143	0.00063	-	0.001	0.000	-	-
SW-15	2024-05-21	WP2412814-007	-	0.97	0.0014	0.00010	2.09	0.000005	1.85	0.0230	0.3	-	0.000005	0.00005	0.00005	0.00265	0.00005	0.000155	0.00061	-	0.001	0.000	-	-
Duplicates Averaged			-	1.00	0.00140	0.00006	2.08	0.000005	1.79	0.0238	0.3	-	0.0000050	0.00005	0.00005	0.00305	0.00005	0.0001490	0.00062	-	0.001	0.000	-	-
Relative Percent Difference			-	5.4	0.0	284.0	1.5	0.0	6.9	6.1	0.0	-	0.0	0.0	0.0	23.2	0.0	8.4	3.2	-	7.1	10.6	-	-
SW-08A	2024-05-21	TMWATR061924CH1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.60
SW-08A	2024-05-21	TMWATR061924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.20
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.40
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.6
SW-08A	2024-05-21	MTWATR061024JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.330	-
SW-08A	2024-05-21	MTWATR061024JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.324	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.327	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.40
SW-08A	2024-06-19	TMWATR070224CH1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.60
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.50
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1
SW-08A	2024-11-02	MTWATR120524JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.178	-
SW-08A	2024-11-02	MTWATR120524JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.188	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.183	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.6	-
SW-10	2024-10-10	WP2424082-004	0.015	1.35	0.00161	0.00003	5.02	0.000005	2.23	0.0374	0.6	0.0001	0.000005	0.00005	0.00012	0.00226	0.00005	0.000154	0.00025	-	0.008	0.000	-	-
SW-10	2024-10-10	WP2424082-003	0.015	1.32	0.00157	0.00011	5.00	0.000005	2.17	0.0384	0.6	0.0001	0.000005	0.00005	0.00005	0.00202	0.00005	0.00015	0.00025	-	0.001	0.000	-	-
Duplicates Averaged			0.0150	1.34	0.00159	0.00007	5.01	0.000005	2.20	0.0379	0.6	0.00010	0.0000050	0.00005	0.00009	0.00214	0.00005	0.0001520	0.00025	-	0.004	0.000	-	-
Relative Percent Difference			0.0	2.2	2.5	356.0	0.4	0.0	2.7	2.7	5.0	0.0	0.0	0.0	58.3	10.6	0.0	2.6	0.0	-	85.5	2.3	-	-
SW-10	2024-10-10	MTWATR112624JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.298	-
SW-10	2024-10-10	MTWATR112624JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.306	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.302	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.685	-
SW-GL02	2024-08-04	TMWATR091124CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.03
SW-GL02	2024-08-04	TMWATR091124CH1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.06
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.05
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.48
SW-GL02	2024-09-04	MTWATR100124JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.166	-
SW-GL02	2024-09-04	MTWATR100124JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.178	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.172	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.229	-
SW-GL02	2024-10-05	WP2423572-005	0.015	1.20	0.00296	0.00008	6.83	0.000005	1.91	0.0429	0.5	0.0001	0.000005	0.00012	0.00005	0.00335	0.00005	0.000146	0.00076	-	0.001	0.000	-	-
SW-GL02	2024-10-05	WP2423572-004	0.015	1.22	0.00305	0.00009	6.81	0.000005	2.00	0.0411	0.6	0.0001	0.000005	0.00005	0.00005	0.00310	0.00005	0.000144	0.00076	-	0.001	0.000	-	-
Duplicates Averaged			0.01500	1.21	0.00301	0.00008	6.82	0.000005	1.96	0.0420	0.5	0.00010	0.0000050	0.00009	0.00005	0.00323	0.00005	0.0001450	0.00076	-	0.001	0.000	-	-
Relative Percent Difference			0.0	1.7	3.0	10.0	0.3	0.0	4.7	4.2	7.8	0.0	0.0	58.3	0.0	7.5	0.0	1.4	0.0	-	0.0	18.4	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
SW-18	2024-10-05	MTWATR112624JS1-019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-18	2024-10-05	MTWATR112624JS1-018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-04-04	WP2408018-006	6.42	7.10	0.05	7.8	167.0	167.0	0.5	0.5	0.5	231.0	201.0	-	52.5	600.0	26.5	782.0
SW-11	2024-04-04	WP2408018-007	6.42	7.12	0.05	8.3	167.0	167.0	0.5	0.5	0.5	229.0	224.0	-	65.3	542.0	22.3	779.0
Duplicates Averaged			6.42	7.11	0.05	8.1	167.0	167.0	0.5	0.5	0.5	230.0	212.5	-	58.9	571.0	24.4	780.5
Relative Percent Difference			0.0	0.3	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.9	11.4	-	24.4	9.7	15.8	0.4

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
SW-18	2024-10-05	MTWATR112624JS1-019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-18	2024-10-05	MTWATR112624JS1-018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-04-04	WP2408018-006	-	119.0	-	69.7	0.144	0.0005	0.14	0.002	0.00	0.00	0.09	-	-	0.001	0.0005	0.0005	1.590	0.00005
SW-11	2024-04-04	WP2408018-007	-	121.0	-	70.4	0.151	0.0005	0.15	0.003	0.00	0.00	0.10	-	-	0.0011	0.0005	0.0005	1.550	0.00005
Duplicates Averaged			-	120.0	-	70.1	0.15	0.0005	0.15	0.003	0.00	0.00	0.09	-	-	0.0010500	0.0005000	0.0005000	1.570	0.00005
Relative Percent Difference			-	1.7	-	1.0	4.9	0.0	4.9	38.1	0.0	0.0	12.7	-	-	10.0	0.0	0.0	2.5	0.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
SW-18	2024-10-05	MTWATR112624JS1-019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-18	2024-10-05	MTWATR112624JS1-018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-04-04	WP2408018-006	0.0031	0.0726	0.000033	0.000025	0.025	0.001060	54.3	0.000087	0.0032	0.003320	0.0287	4.05	0.001560	0.0086	23.20	0.53900	0.0000416	0.00076	0.00422	0.152	0.152
SW-11	2024-04-04	WP2408018-007	0.0031	0.0715	0.000036	0.000025	0.024	0.001080	54.4	0.000083	0.0032	0.003190	0.0278	4.08	0.001600	0.0085	22.60	0.52400	0.0000418	0.00067	0.00405	0.146	0.146
Duplicates Averaged			0.0031	0.0721	0.0000345	0.000025	0.025	0.001070	54.4	0.0000850	0.0032	0.003255	0.0283	4.0650000	0.001580	0.0086	22.90	0.53150	0.0000417	0.00071	0.0041350	0.149	0.1490000
Relative Percent Difference			0.3	1.5	9.1	0.0	4.0	1.9	0.2	4.6	0.6	3.9	3.1	0.7	2.6	1.2	2.59	2.8	0.5	11.0	4.0	3.9	3.9

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
SW-18	2024-10-05	MTWATR112624JS1-019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-18	2024-10-05	MTWATR112624JS1-018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-04-04	WP2408018-006	5.86	0.00404	0.000111	9.60	0.000469	86.20	0.142	26.9	0.0001	0.000018	0.00018	0.00005	0.05300	0.00146	0.000324	0.00251	-	0.024	0.0006	0.083	-
SW-11	2024-04-04	WP2408018-007	5.75	0.00385	0.000141	9.29	0.000466	83.20	0.136	26.6	0.0001	0.000021	0.0002	0.00005	0.05380	0.00149	0.000328	0.00252	-	0.024	0.0006	0.230	-
Duplicates Averaged			5.81	0.0039450	0.0001260	9.45	0.0004675	84.70	0.139	26.8	0.0001000	0.0000195	0.0001900	0.00005	0.05340	0.00148	0.000326	0.00252	-	0.024	0.0006	0.156	-
Relative Percent Difference			1.9	4.7	27.0	3.2	0.6	3.5	4.2	1.1	0.0	16.7	11.1	0.0	1.5	2.1	1.2	0.4	-	0.8	6.5	177.4	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
SW-18	2024-10-05	MTWATR112624JS1-019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-18	2024-10-05	MTWATR112624JS1-018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	TMWATR042224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-04-04	MTWATR041624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-05-02	TMWATR022824CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	TMWATR092924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	MTWATR100124JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	TMWATR102824ZB1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-10-02	MTWATR112724JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	MTWATR120524JS1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-11-02	TMWATR112524CH1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-04-04	WP2408018-006	0.00005	0.0020	0.0472	0.00001	0.00003	0.025	0.0000782	47.8	0.000005	0.00042	0.002560	0.0022	0.958	0.000213	0.0095	19.90	0.41000	0.000020	0.000423	0.00298	0.025
SW-11	2024-04-04	WP2408018-007	0.00005	0.0024	0.0564	0.000023	0.00003	0.025	0.000219	53.3	0.000005	0.00095	0.002820	0.0098	2.380	0.000719	0.0098	22.00	0.47200	0.000016	0.000514	0.00313	0.025
		Duplicates Averaged	0.00005	0.0022	0.0518000	0.0000165	0.00003	0.025	0.0001486	50.6	0.0000050	0.00069	0.002690	0.0060	1.669	0.000466	0.0097	20.95	0.44100	0.000018	0.0004685	0.0030550	0.025
		Relative Percent Difference	0.0	17.9	19.5	130.0	0.0	0.0	180.1	11.5	0.0	126.2	10.2	354.4	148.4	237.6	3.2	10.6	15.1	19.0	21.5	5.0	0.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
SW-18	2024-10-05	MTWATR112624JS1-019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.250	-
SW-18	2024-10-05	MTWATR112624JS1-018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.244	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.247	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	-
SW-TR	2024-04-04	TMWATR042224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.35
SW-TR	2024-04-04	TMWATR042224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.91
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.13
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9
SW-TR	2024-04-04	MTWATR041624JS1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.210	-
SW-TR	2024-04-04	MTWATR041624JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.160	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.185	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	-
SW-TR	2024-05-02	TMWATR022824CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.03
SW-TR	2024-05-02	TMWATR022824CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.05
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.04
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4
SW-TR	2024-09-03	TMWATR092924CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.99
SW-TR	2024-09-03	TMWATR092924CH1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.09
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.04
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5
SW-TR	2024-09-03	MTWATR100124JS1-017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.308	-
SW-TR	2024-09-03	MTWATR100124JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.293	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.301	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.9	-
SW-TR	2024-10-02	TMWATR102824ZB1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.42
SW-TR	2024-10-02	TMWATR102824ZB1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.72
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.57
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.7
SW-TR	2024-10-02	MTWATR112724JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.198	-
SW-TR	2024-10-02	MTWATR112724JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.206	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.202	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0	-
SW-TR	2024-11-02	MTWATR120524JS1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.276	-
SW-TR	2024-11-02	MTWATR120524JS1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.287	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.282	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.0	-
SW-TR	2024-11-02	TMWATR112524CH1-021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.13
SW-TR	2024-11-02	TMWATR112524CH1-020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.52
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.33
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.30
SW-11	2022-07-21	MWATR091622ZB1-111687	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.90
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.10
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.5
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.060	-
SW-11	2022-08-29	ITWATR092022JS1-111709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.130	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.095	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.6	-
SW-11	2024-04-04	WP2408018-006	0.015	5.19	0.00237	0.00007	6.67	0.000012	82.10	0.1340	24.0	0.0001	0.000005	0.00005	0.00005	0.00259	0.00040	0.000206	0.00052	-	0.007	0.000	-	-
SW-11	2024-04-04	WP2408018-007	0.049	5.14	0.00239	0.00008	7.08	0.000086	82.60	0.1410	23.6	0.0001	0.000005	0.00013	0.00005	0.00750	0.00070	0.000221	0.00088	-	0.012	0.001	-	-
Duplicates Averaged			0.0320	5.17	0.00238	0.00008	6.88	0.000049	82.35	0.1375	23.8	0.00010	0.0000050	0.00009	0.00005	0.00505	0.00055	0.0002135	0.00070	-	0.010	0.000	-	-
Relative Percent Difference			226.7	1.0	0.8	23.5	6.1	616.7	0.6	5.2	1.7	0.0	0.0	160.0	0.0	189.6	75.0	7.3	69.2	-	65.3	35.0	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
SW-11	2024-07-10	WP2417255-004	6.23	7.51	17.3	8.6	60.9	60.9	0.5	0.5	0.5	72.2	75.9	-	63.0	173.0	4.2	138.0
SW-11	2024-07-10	WP2417255-002	6.23	7.60	17.3	11.5	60.4	60.4	0.5	0.5	0.5	73.2	75.7	-	61.6	172.0	4.6	136.0
		Duplicates Averaged	6.23	7.56	17.30	10.1	60.7	60.7	0.5	0.5	0.5	72.7	75.8	-	62.3	172.5	4.4	137.0
		Relative Percent Difference	0.0	1.2	0.0	33.7	0.8	0.8	0.0	0.0	0.0	1.4	0.3	-	2.2	0.6	9.5	1.4
SW-11	2024-11-02	MTWATR120424JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-11-02	MTWATR120424JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-02-10	WP2403349-004	7.66	6.78	0.5	10.9	48.5	48.5	0.5	0.5	0.5	50.7	54.0	-	23.6	95.7	4.1	106.0
DL-REF	2024-02-10	WP2403349-005	7.66	6.77	0.5	13.1	48.1	48.1	0.5	0.5	0.5	52.1	53.8	-	25.1	96.3	3.7	106.0
		Duplicates Averaged	7.66	6.78	0.50	12.0	48.3	48.3	0.5	0.5	0.5	51.4	53.9	-	24.4	96.0	3.9	106.0
		Relative Percent Difference	0.0	0.1	0.0	20.2	0.8	0.8	0.0	0.0	0.0	2.8	0.4	-	6.4	0.6	9.8	0.0
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-09-07	WP2421728-009	6.83	7.52	15.1	4.2	31.7	31.7	0.5	0.5	0.5	32.1	34.1	-	12.1	51.9	1.9	66.7
SW-GL	2024-09-07	WP2421728-006	6.83	7.51	15.1	3.5	31.7	31.7	0.5	0.5	0.5	32.1	33.5	-	13.4	50.6	1.7	66.8
		Duplicates Averaged	6.83	7.52	15.10	3.9	31.7	31.7	0.5	0.5	0.5	32.1	33.8	-	12.8	51.3	1.8	66.8
		Relative Percent Difference	0.0	0.1	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	1.8	-	10.7	2.5	10.5	0.1
SW-GL	2024-11-03	WP2425500-009	7.41	7.59	3.62	1.0	33.1	33.1	0.5	0.5	0.5	33.1	32.5	-	10.1	39.2	3.2	66.9
SW-GL	2024-11-03	WP2425500-007	7.41	7.62	3.62	1.0	33.6	33.6	0.5	0.5	0.5	32.1	32.0	-	10.7	32.6	3.1	67.8
		Duplicates Averaged	7.41	7.61	3.62	1.0	33.4	33.4	0.5	0.5	0.5	32.6	32.3	-	10.4	35.9	3.2	67.4
		Relative Percent Difference	0.0	0.4	0.0	0.0	1.5	1.5	0.0	0.0	0.0	3.0	1.5	-	5.9	16.8	3.1	1.3
SW-GL	2024-12-02	WP2426974-008	7.25	7.28	0.1	3.2	28.0	28.0	0.5	0.5	0.5	19.7	29.5	-	16.8	43.6	3.1	61.6
SW-GL	2024-12-02	WP2426974-002	7.25	7.14	0.1	3.3	25.6	25.6	0.5	0.5	0.5	25.3	29.4	-	18.7	37.1	3.3	58.2
		Duplicates Averaged	7.25	7.21	0.10	3.3	26.8	26.8	0.5	0.5	0.5	22.5	29.5	-	17.8	40.4	3.2	59.9
		Relative Percent Difference	0.0	1.9	0.0	3.1	8.6	8.6	0.0	0.0	0.0	28.4	0.3	-	11.3	14.9	6.5	5.5
SW-01	2024-03-07	WP2405786-002	6.84	6.50	0.4	11.2	18.6	18.6	0.5	0.5	0.5	31.6	29.4	-	45.7	99.0	11.5	55.8
SW-01	2024-03-07	WP2405786-003	6.84	6.51	0.4	11.7	19.1	19.1	0.5	0.5	0.5	32.0	29.8	-	48.0	83.4	10.3	55.9
		Duplicates Averaged	6.84	6.51	0.40	11.5	18.9	18.9	0.5	0.5	0.5	31.8	29.6	-	46.9	91.2	10.9	55.9
		Relative Percent Difference	0.0	0.2	0.0	4.5	2.7	2.7	0.0	0.0	0.0	1.3	1.4	-	5.0	15.8	10.4	0.2
SW-01	2024-06-16	WP2415267-004	6.28	6.09	20	9.4	7.9	7.9	0.5	0.5	0.5	24.6	24.0	-	48.0	64.1	2.3	36.5
SW-01	2024-06-16	WP2415267-003	6.28	6.06	20	9.3	7.6	7.6	0.5	0.5	0.5	24.3	24.4	-	45.3	80.6	1.8	36.3
		Duplicates Averaged	6.28	6.08	20.00	9.4	7.8	7.8	0.5	0.5	0.5	24.5	24.2	-	46.7	72.4	2.1	36.4
		Relative Percent Difference	0.0	0.5	0.0	1.1	3.8	3.8	0.0	0.0	0.0	1.2	1.7	-	5.6	25.7	21.7	0.5
SW-01	2024-07-08	WP2417256-002	5.58	6.60	27	8.8	11.4	11.4	0.5	0.5	0.5	27.2	28.4	-	58.0	81.8	1.2	42.5
SW-01	2024-07-08	WP2417256-003	5.58	5.41	27	2.1	0.5	0.5	0.5	0.5	0.5	0.3	0.3	-	0.8	1.5	0.5	0.5
		Duplicates Averaged	5.58	6.01	27.00	5.5	6.0	6.0	0.5	0.5	0.5	13.7	14.3	-	29.4	41.7	0.9	21.5
		Relative Percent Difference	0.0	18.0	0.0	76.1	95.6	95.6	0.0	0.0	0.0	99.1	99.1	-	98.6	98.2	58.3	98.8
SW-01	2024-10-02	TMWATR102524ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-10-02	TMWATR102524ZB1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-11-02	WP2425500-014	6.79	6.83	1.3	3.6	15.1	15.1	0.5	0.5	0.5	32.4	30.2	-	54.6	95.7	21.4	46.9
SW-01	2024-11-02	WP2425500-013	6.79	6.79	1.3	3.5	14.8	14.8	0.5	0.5	0.5	33.0	30.2	-	53.2	74.0	9.5	46.7
		Duplicates Averaged	6.79	6.81	1.30	3.6	15.0	15.0	0.5	0.5	0.5	32.7	30.2	-	53.9	84.9	15.5	46.8
		Relative Percent Difference	0.0	0.6	0.0	2.8	2.0	2.0	0.0	0.0	0.0	1.9	0.0	-	2.6	22.7	55.6	0.4

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
SW-11	2024-07-10	WP2417255-004	-	2.6	-	0.2	-	0.0005	0.09	0.001	0.00	0.00	0.08	-	-	0.0022	0.0014	0.0019	0.476	0.00018
SW-11	2024-07-10	WP2417255-002	-	2.7	-	0.2	-	0.0005	0.06	0.001	0.00	0.00	0.09	-	-	0.0021	0.002	0.0018	0.480	0.00018
Duplicates Averaged			-	2.7	-	0.2	-	0.0005	0.08	0.001	0.00	0.00	0.09	-	-	0.0021500	0.0017000	0.0018500	0.478	0.00018
Relative Percent Difference			-	0.8	-	0.0	-	0.0	33.4	0.0	0.0	0.0	4.2	-	-	4.5	42.9	5.3	0.8	0.0
SW-11	2024-11-02	MTWATR120424JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-11-02	MTWATR120424JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-02-10	WP2403349-004	-	0.5	-	1.1	-	0.0005	0.06	0.001	0.10	0.10	0.03	-	-	0.0005	0.0005	0.0005	0.282	0.00005
DL-REF	2024-02-10	WP2403349-005	-	0.5	-	1.2	-	0.0005	0.06	0.001	0.10	0.10	0.03	-	-	0.0005	0.0005	0.0005	0.279	0.00005
Duplicates Averaged			-	0.5	-	1.1	-	0.0005	0.06	0.001	0.10	0.10	0.03	-	-	0.0005000	0.0005000	0.0005000	0.281	0.00005
Relative Percent Difference			-	7.8	-	6.5	-	0.0	0.3	0.0	4.6	4.6	0.7	-	-	0.0	0.0	0.0	1.1	0.0
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-09-07	WP2421728-009	-	0.2	-	0.6	-	0.0005	0.01	0.001	0.00	0.00	0.02	-	-	0.0005	0.0005	0.0005	0.010	0.00005
SW-GL	2024-09-07	WP2421728-006	-	0.2	-	0.6	-	0.0005	0.00	0.001	0.00	0.00	0.02	-	-	0.0005	0.0005	0.0005	0.011	0.00005
Duplicates Averaged			-	0.2	-	0.6	-	0.0005	0.00	0.001	0.00	0.00	0.02	-	-	0.0005000	0.0005000	0.0005000	0.010	0.00005
Relative Percent Difference			-	0.0	-	6.9	-	0.0	50.0	0.0	0.0	0.0	1.1	-	-	0.0	0.0	0.0	11.2	0.0
SW-GL	2024-11-03	WP2425500-009	-	0.2	-	0.6	-	0.0005	0.03	0.001	0.00	0.00	0.02	-	-	0.0005	0.0005	0.0005	0.026	0.00005
SW-GL	2024-11-03	WP2425500-007	-	0.2	-	0.6	-	0.0005	0.01	0.001	0.00	0.00	0.02	-	-	0.0005	0.0005	0.0005	0.017	0.00005
Duplicates Averaged			-	0.2	-	0.6	-	0.0005	0.02	0.001	0.00	0.00	0.02	-	-	0.0005000	0.0005000	0.0005000	0.021	0.00005
Relative Percent Difference			-	10.0	-	0.0	-	0.0	78.3	0.0	0.0	0.0	3.7	-	-	0.0	0.0	0.0	33.6	0.0
SW-GL	2024-12-02	WP2426974-008	-	0.3	-	0.6	-	0.0005	0.01	0.001	0.03	0.03	0.03	-	-	0.0005	0.0005	0.0005	0.038	0.00005
SW-GL	2024-12-02	WP2426974-002	-	0.2	-	0.6	-	0.0005	0.02	0.001	0.03	0.03	0.04	-	-	0.0005	0.0005	0.0005	0.042	0.00005
Duplicates Averaged			-	0.2	-	0.6	-	0.0005	0.01	0.001	0.03	0.03	0.03	-	-	0.0005000	0.0005000	0.0005000	0.040	0.00005
Relative Percent Difference			-	8.0	-	6.8	-	0.0	44.1	0.0	16.8	16.8	20.7	-	-	0.0	0.0	0.0	10.1	0.0
SW-01	2024-03-07	WP2405786-002	-	0.2	-	0.6	-	0.0005	0.01	0.001	0.02	0.02	0.07	-	-	0.0014	0.001	0.0011	0.364	0.00019
SW-01	2024-03-07	WP2405786-003	-	0.2	-	0.6	0.0149	0.0005	0.01	0.001	0.02	0.02	0.08	-	-	0.0014	0.0011	0.0012	0.359	0.00018
Duplicates Averaged			-	0.2	-	0.6	0.01	0.0005	0.01	0.001	0.02	0.02	0.08	-	-	0.0014000	0.0010500	0.0011500	0.362	0.00019
Relative Percent Difference			-	9.1	-	0.0	-	0.0	41.9	0.0	17.8	17.8	22.8	-	-	0.0	10.0	9.1	1.4	5.3
SW-01	2024-06-16	WP2415267-004	-	0.1	-	0.5	-	0.0005	0.02	0.001	0.01	0.01	0.02	-	-	0.0013	0.0012	0.0014	0.455	0.00018
SW-01	2024-06-16	WP2415267-003	-	0.1	-	0.5	-	0.0005	0.02	0.001	0.01	0.01	0.02	-	-	0.0013	0.0014	0.0012	0.459	0.00019
Duplicates Averaged			-	0.1	-	0.5	-	0.0005	0.02	0.001	0.01	0.01	0.02	-	-	0.0013000	0.0013000	0.0013000	0.457	0.00019
Relative Percent Difference			-	0.0	-	3.9	-	0.0	3.8	0.0	50.0	50.0	11.3	-	-	0.0	16.7	14.3	0.9	5.6
SW-01	2024-07-08	WP2417256-002	-	0.1	-	0.2	-	0.0005	0.05	0.001	0.00	0.00	0.02	-	-	0.0022	0.0013	0.0017	0.451	0.00013
SW-01	2024-07-08	WP2417256-003	-	0.1	-	0.2	-	0.0005	0.00	0.001	0.00	0.00	0.00	-	-	0.0005	0.0005	0.0005	0.002	0.00005
Duplicates Averaged			-	0.1	-	0.2	-	0.0005	0.03	0.001	0.00	0.00	0.01	-	-	0.0013500	0.0009000	0.0011000	0.226	0.00009
Relative Percent Difference			-	0.0	-	0.0	-	0.0	94.8	0.0	0.0	0.0	93.6	-	-	77.3	61.5	70.6	99.7	61.5
SW-01	2024-10-02	TMWATR102524ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-10-02	TMWATR102524ZB1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-11-02	WP2425500-014	-	0.2	-	0.3	-	0.0005	0.05	0.001	0.00	0.00	0.04	-	-	0.0016	0.0005	0.001	0.810	0.00017
SW-01	2024-11-02	WP2425500-013	-	0.2	-	0.3	-	0.0005	0.06	0.001	0.00	0.00	0.03	-	-	0.0011	0.001	0.0011	0.839	0.00018
Duplicates Averaged			-	0.2	-	0.3	-	0.0005	0.06	0.001	0.00	0.00	0.04	-	-	0.00	0.00	0.00	0.825	0.00018
Relative Percent Difference			-	16.7	-	0.0	-	0.0	37.0	0.0	0.0	0.0	39.6	-	-	31.3	100.0	10.0	3.6	5.9

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
SW-11	2024-07-10	WP2417255-004	0.0094	0.0215	0.000053	0.000025	0.005	0.000016	18.6	0.000005	0.0017	0.001770	0.0016	1.8	0.000180	0.0029	6.25	0.40100	0.0000061	0.00049	0.00375	0.059	0.059
SW-11	2024-07-10	WP2417255-002	0.0095	0.0218	0.000048	0.000025	0.005	0.000017	18.9	0.000005	0.0017	0.001740	0.0017	1.82	0.000171	0.0032	6.31	0.40600	0.0000068	0.00052	0.00376	0.060	0.06
Duplicates Averaged			0.0095	0.0217	0.0000505	0.000025	0.005	0.000016	18.8	0.0000050	0.0017	0.001755	0.0016	1.8100000	0.000176	0.0031	6.28	0.40350	0.0000065	0.00050	0.0037550	0.060	0.0595000
Relative Percent Difference			1.3	1.4	9.4	0.0	0.0	7.7	1.6	0.0	0.6	1.7	3.8	1.1	5.0	10.3	0.96	1.2	11.5	5.3	0.3	1.7	1.7
SW-11	2024-11-02	MTWATR120424JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-11-02	MTWATR120424JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-02-10	WP2403349-004	0.0018	0.0128	0.000021	0.000025	0.005	0.000003	13.3	0.000022	0.0007	0.000570	0.0009	1.09	0.000194	0.0022	4.25	0.15600	0.0000025	0.00021	0.00079	0.025	0.015
DL-REF	2024-02-10	WP2403349-005	0.0018	0.0129	0.00001	0.000025	0.005	0.000005	13.5	0.000024	0.0007	0.000550	0.0009	1.09	0.000195	0.0023	4.46	0.15700	0.0000025	0.00022	0.00083	0.025	0.03
Duplicates Averaged			0.0018	0.0129	0.0000155	0.000025	0.005	0.000004	13.4	0.0000230	0.0007	0.000560	0.0009	1.0900000	0.000195	0.0023	4.36	0.15650	0.0000025	0.00021	0.0008100	0.025	0.0225000
Relative Percent Difference			2.2	0.8	52.4	0.0	0.0	108.0	1.5	9.1	1.5	3.5	0.0	0.0	0.5	4.5	4.94	0.6	0.0	3.3	5.1	0.0	100.0
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-09-07	WP2421728-009	0.0027	0.0083	0.00001	0.000025	0.005	0.000003	9.3	0.000005	0.0001	0.000050	0.0003	0.157	0.000025	0.0012	2.17	0.03940	0.0000025	0.00012	0.00025	0.025	0.015
SW-GL	2024-09-07	WP2421728-006	0.0027	0.0081	0.00001	0.000025	0.005	0.000003	9.4	0.000005	0.0001	0.000050	0.0003	0.157	0.000025	0.0012	2.12	0.03920	0.0000025	0.00013	0.00025	0.025	0.015
Duplicates Averaged			0.0027	0.0082	0.0000100	0.000025	0.005	0.000003	9.3	0.0000050	0.0001	0.000050	0.0003	0.1570000	0.000025	0.0012	2.15	0.03930	0.0000025	0.00012	0.0002500	0.025	0.0150000
Relative Percent Difference			0.0	1.7	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.30	0.5	0.0	6.8	0.0	0.0	0.0
SW-GL	2024-11-03	WP2425500-009	0.0021	0.0075	0.00001	0.000025	0.005	0.000003	9.5	0.000005	0.0001	0.000050	0.0003	0.203	0.000025	0.0013	2.26	0.01730	0.0000025	0.00010	0.00025	-	0.015
SW-GL	2024-11-03	WP2425500-007	0.0020	0.0076	0.00001	0.000025	0.005	0.000003	9.2	0.000005	0.0001	0.000050	0.0003	0.199	0.000025	0.0012	2.21	0.01720	0.0000025	0.00012	0.00025	-	0.015
Duplicates Averaged			0.0020	0.0076	0.0000100	0.000025	0.005	0.000003	9.4	0.0000050	0.0001	0.000050	0.0003	0.2010000	0.000025	0.0013	2.24	0.01725	0.0000025	0.00011	0.0002500	-	0.0150000
Relative Percent Difference			1.9	1.3	0.0	0.0	0.0	0.0	3.1	0.0	58.3	0.0	0.0	2.0	0.0	7.7	2.21	0.6	0.0	18.0	0.0	-	0.0
SW-GL	2024-12-02	WP2426974-008	0.0012	0.0050	0.00001	0.000025	0.005	0.000003	5.7	0.000005	0.0001	0.000050	0.0003	0.17	0.000025	0.0005	1.32	0.00714	0.0000025	0.00007	0.00025	-	0.015
SW-GL	2024-12-02	WP2426974-002	0.0012	0.0055	0.00001	0.000025	0.005	0.000003	7.9	0.000005	0.0002	0.000050	0.0005	0.184	0.000053	0.0005	1.37	0.00784	0.0000025	0.00009	0.00025	-	0.015
Duplicates Averaged			0.0012	0.0052	0.0000100	0.000025	0.005	0.000003	6.8	0.0000050	0.0002	0.000050	0.0004	0.1770000	0.000039	0.0005	1.35	0.00749	0.0000025	0.00008	0.0002500	-	0.0150000
Relative Percent Difference			3.3	10.9	0.0	0.0	0.0	0.0	37.8	0.0	50.0	0.0	100.0	8.2	112.0	0.0	3.79	9.8	0.0	35.3	0.0	-	0.0
SW-01	2024-03-07	WP2405786-002	0.0059	0.0087	0.00001	0.000025	0.005	0.000013	8.7	0.000005	0.0008	0.000710	0.0007	1.12	0.000146	0.0015	2.39	0.11500	0.0000025	0.00009	0.00093	0.069	0.069
SW-01	2024-03-07	WP2405786-003	0.0056	0.0085	0.00001	0.000025	0.005	0.000011	8.6	0.000005	0.0008	0.000680	0.0007	1.09	0.000137	0.0014	2.52	0.11300	0.0000025	0.00010	0.0009	0.062	0.062
Duplicates Averaged			0.0057	0.0086	0.0000100	0.000025	0.005	0.000012	8.7	0.0000050	0.0008	0.000695	0.0007	1.1050000	0.000142	0.0015	2.46	0.11400	0.0000025	0.00009	0.0009150	0.066	0.0655000
Relative Percent Difference			4.1	1.4	0.0	0.0	0.0	15.2	0.7	0.0	5.3	4.2	0.0	2.7	6.2	6.7	5.44	1.7	0.0	3.3	3.2	10.1	10.1
SW-01	2024-06-16	WP2415267-004	0.0051	0.0082	0.000024	0.000025	0.005	0.000016	6.9	0.000005	0.0009	0.000360	0.0009	0.9	0.000230	0.0010	1.81	0.03220	0.0000076	0.00018	0.00095	0.025	0.015
SW-01	2024-06-16	WP2415267-003	0.0050	0.0081	0.000029	0.000025	0.005	0.000015	6.8	0.000005	0.0009	0.000360	0.0009	0.892	0.000236	0.0011	1.80	0.03240	0.0000079	0.00009	0.00096	0.025	0.015
Duplicates Averaged			0.0050	0.0082	0.0000265	0.000025	0.005	0.000015	6.8	0.0000050	0.0009	0.000360	0.0009	0.8960000	0.000233	0.0011	1.81	0.03230	0.0000078	0.00014	0.0009550	0.025	0.0150000
Relative Percent Difference			1.8	1.3	20.8	0.0	0.0	1.3	1.5	0.0	0.0	0.0	6.8	0.9	2.6	10.0	0.55	0.6	3.9	48.9	1.1	0.0	0.0
SW-01	2024-07-08	WP2417256-002	0.0052	0.0085	0.000028	0.000025	0.005	0.000003	7.8	0.000005	0.0009	0.000230	0.0006	0.773	0.000254	0.0011	1.91	0.01660	0.0000057	0.00006	0.00086	0.025	0.015
SW-01	2024-07-08	WP2417256-003	0.0001	0.0001	0.00001	0.000025	0.005	0.000003	0.0	0.000005	0.0001	0.000050	0.0003	0.005	0.000025	0.0005	0.00	0.00005	0.0000025	0.00003	0.00025	0.025	0.015
Duplicates Averaged			0.0026	0.0043	0.0000190	0.000025	0.005	0.000003	3.9	0.0000050	0.0005	0.000140	0.0004	0.3890000	0.000140	0.0008	0.96	0.00833	0.0000041	0.00004	0.0005550	0.025	0.0150000
Relative Percent Difference			99.0	99.4	64.3	0.0	0.0	0.0	99.7	0.0	94.3	78.3	59.7	99.4	90.2	54.5	99.87	99.7	56.1	56.9	70.9	0.0	0.0
SW-01	2024-10-02	TMWATR102524ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-10-02	TMWATR102524ZB1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-11-02	WP2425500-014	0.0046	0.0075	0.000043	0.000025	0.005	0.000015	8.8	0.000099	0.0016	0.000380	0.0027	1.1	0.000432	0.0021	2.52	0.01440	0.0000025	0.00010	0.00152	-	0.062
SW-01	2024-11-02	WP2425500-013	0.0048	0.0077	0.000038	0.000025	0.005	0.000011	8.9	0.000107	0.0017	0.000400	0.0027	1.14	0.000425	0.0022	2.60	0.01490	0.0000025	0.00011	0.00154	-	0.046
Duplicates Averaged			0.0047	0.0076	0.00	0.000025	0.005	0.000013	8.9	0.00	0.0017	0.000390	0.0027	1.12	0.000429	0.0022	2.56	0.01465	0.00	0.00011	0.00	-	0.05
Relative Percent Difference			4.6	2.1	11.6	0.0	0.0	30.5	1.6	8.1	5.6	5.3	1.1	3.6	1.6	4.8	3.17	3.5	0.0	6.8	1.3	-	25.8

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
SW-11	2024-07-10	WP2417255-004	1.52	0.00219	0.000328	5.79	0.000005	5.09	0.049	0.5	0.0001	0.000005	0.00037	0.00005	0.01410	0.00035	0.000177	0.00246	-	0.002	0.0017	0.434	-
SW-11	2024-07-10	WP2417255-002	1.55	0.00214	0.000235	5.93	0.000005	5.15	0.049	0.3	0.0001	0.000005	0.00035	0.00005	0.01370	0.00036	0.000165	0.00252	-	0.002	0.0017	0.436	-
		Duplicates Averaged	1.54	0.0021650	0.0002815	5.86	0.0000050	5.12	0.049	0.4	0.0001000	0.0000050	0.0003600	0.00005	0.01390	0.00036	0.000171	0.00249	-	0.002	0.0017	0.435	-
		Relative Percent Difference	2.0	2.3	28.4	2.4	0.0	1.2	0.6	51.9	0.0	0.0	5.4	0.0	2.8	2.9	6.8	2.4	-	0.0	0.0	0.5	-
SW-11	2024-11-02	MTWATR120424JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-11-02	MTWATR120424JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-02-10	WP2403349-004	1.08	0.00213	0.000142	3.58	0.000005	2.01	0.034	0.7	0.0001	0.000005	0.00005	0.00005	0.01090	0.00005	0.000306	0.00114	-	0.005	0.0003	0.102	-
DL-REF	2024-02-10	WP2403349-005	1.08	0.00235	0.000144	3.47	0.000005	2.01	0.034	0.3	0.0001	0.000005	0.00005	0.00005	0.01080	0.00005	0.000330	0.00116	-	0.002	0.0003	0.103	-
		Duplicates Averaged	1.08	0.0022400	0.0001430	3.53	0.0000050	2.01	0.034	0.5	0.0001000	0.0000050	0.0000500	0.00005	0.01085	0.00005	0.000318	0.00115	-	0.003	0.0003	0.103	-
		Relative Percent Difference	0.0	10.3	1.4	3.1	0.0	0.0	1.5	62.1	0.0	0.0	0.0	0.0	0.9	0.0	7.8	1.8	-	68.1	6.9	1.0	-
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-09-07	WP2421728-009	0.64	0.00192	0.000068	0.98	0.000005	1.06	0.021	0.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000040	0.00025	-	0.002	0.0001	0.003	-
SW-GL	2024-09-07	WP2421728-006	0.64	0.00184	0.000025	0.96	0.000005	1.04	0.021	0.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000038	0.00025	-	0.002	0.0001	0.004	-
		Duplicates Averaged	0.64	0.0018800	0.0000465	0.97	0.0000050	1.05	0.021	0.3	0.0001000	0.0000050	0.0000500	0.00005	0.00015	0.00005	0.000039	0.00025	-	0.002	0.0001	0.003	-
		Relative Percent Difference	0.6	4.2	63.2	2.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	-	0.0	0.0	31.0	-
SW-GL	2024-11-03	WP2425500-009	0.70	0.00197	0.000093	0.72	0.000005	1.30	0.021	0.3	0.0001	0.000005	0.00005	0.00005	0.00078	0.00005	0.000042	0.00025	-	0.002	0.0001	0.002	-
SW-GL	2024-11-03	WP2425500-007	0.70	0.0018	0.000082	0.71	0.000005	1.13	0.021	0.3	0.0001	0.000005	0.00005	0.00005	0.00044	0.00005	0.000041	0.00025	-	0.002	0.0001	0.002	-
		Duplicates Averaged	0.70	0.0018850	0.0000875	0.72	0.0000050	1.22	0.021	0.3	0.0001000	0.0000050	0.0000500	0.00005	0.00061	0.00005	0.000042	0.00025	-	0.002	0.0001	0.002	-
		Relative Percent Difference	0.7	8.6	11.8	1.4	0.0	13.1	0.0	0.0	0.0	0.0	0.0	0.0	43.6	0.0	2.4	0.0	-	0.0	0.0	10.5	-
SW-GL	2024-12-02	WP2426974-008	0.36	0.00089	0.000025	1.17	0.000005	1.60	0.014	0.3	0.0001	0.000005	0.00005	0.00005	0.00080	0.00005	0.000030	0.00025	-	0.002	0.0003	0.037	-
SW-GL	2024-12-02	WP2426974-002	0.41	0.0009	0.000025	1.25	0.000005	1.57	0.023	0.3	0.0001	0.000005	0.00005	0.00005	0.00082	0.00005	0.000034	0.00025	-	0.002	0.0005	0.033	-
		Duplicates Averaged	0.39	0.0008950	0.0000250	1.21	0.0000050	1.59	0.018	0.3	0.0001000	0.0000050	0.0000500	0.00005	0.00081	0.00005	0.000032	0.00025	-	0.002	0.0004	0.035	-
		Relative Percent Difference	11.5	1.1	0.0	6.8	0.0	1.9	56.3	0.0	0.0	0.0	0.0	0.0	2.5	0.0	13.3	0.0	-	0.0	85.7	9.3	-
SW-01	2024-03-07	WP2405786-002	0.61	0.00192	0.000203	3.27	0.000005	1.94	0.023	0.5	0.0001	0.000005	0.00014	0.00005	0.00433	0.00005	0.000078	0.00080	-	0.005	0.0005	0.338	-
SW-01	2024-03-07	WP2405786-003	0.61	0.00186	0.000146	3.22	0.000005	1.66	0.022	0.5	0.0001	0.000005	0.00013	0.00005	0.00422	0.00005	0.000075	0.00078	-	0.004	0.0004	0.336	-
		Duplicates Averaged	0.61	0.0018900	0.0001745	3.25	0.0000050	1.80	0.023	0.5	0.0001000	0.0000050	0.0001350	0.00005	0.00428	0.00005	0.000077	0.00079	-	0.004	0.0004	0.337	-
		Relative Percent Difference	0.3	3.1	28.1	1.5	0.0	14.4	2.2	2.0	0.0	0.0	7.1	0.0	2.5	0.0	3.8	2.5	-	8.9	11.1	0.6	-
SW-01	2024-06-16	WP2415267-004	0.09	0.00026	0.000135	2.68	0.000005	1.21	0.019	0.3	0.0001	0.000005	0.00015	0.00005	0.00527	0.00005	0.000092	0.00095	-	0.003	0.0005	0.452	-
SW-01	2024-06-16	WP2415267-003	0.10	0.00028	0.000207	2.66	0.000005	1.22	0.019	0.3	0.0001	0.000005	0.00015	0.00005	0.00518	0.00005	0.000093	0.00098	-	0.003	0.0005	0.451	-
		Duplicates Averaged	0.09	0.0002700	0.0001710	2.67	0.0000050	1.22	0.019	0.3	0.0001000	0.0000050	0.0001500	0.00005	0.00523	0.00005	0.000093	0.00097	-	0.003	0.0005	0.452	-
		Relative Percent Difference	9.0	7.7	53.3	0.7	0.0	0.8	1.1	0.0	0.0	0.0	0.0	0.0	1.7	0.0	1.1	3.2	-	3.3	1.9	0.2	-
SW-01	2024-07-08	WP2417256-002	0.03	0.0001	0.00012	2.94	0.000005	1.14	0.020	0.3	0.0001	0.000005	0.00017	0.00005	0.00490	0.00005	0.000100	0.00074	-	0.002	0.0005	0.454	-
SW-01	2024-07-08	WP2417256-003	0.03	0.0001	0.000025	0.05	0.000005	0.03	0.000	0.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000005	0.00025	-	0.002	0.0001	0.001	-
		Duplicates Averaged	0.03	0.0001000	0.0000725	1.50	0.0000050	0.58	0.010	0.3	0.0001000	0.0000050	0.0001100	0.00005	0.00253	0.00005	0.000053	0.00050	-	0.002	0.0003	0.227	-
		Relative Percent Difference	0.0	0.0	79.2	98.3	0.0	97.8	99.5	0.0	0.0	0.0	70.6	0.0	96.9	0.0	95.0	66.2	-	0.0	80.4	99.9	-
SW-01	2024-10-02	TMWATR102524ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-10-02	TMWATR102524ZB1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-11-02	WP2425500-014	0.28	0.00147	0.000164	1.86	0.000005	1.59	0.022	0.3	0.0001	0.000013	0.00024	0.00005	0.03140	0.00005	0.000144	0.00135	-	0.022	0.0006	0.390	-
SW-01	2024-11-02	WP2425500-013	0.29	0.00163	0.000154	1.86	0.000005	1.56	0.023	0.3	0.0001	0.000012	0.00021	0.00005	0.03320	0.00005	0.000129	0.00143	-	0.023	0.0006	0.400	-
		Duplicates Averaged	0.28	0.00	0.00	1.86	0.00	1.58	0.023	0.3	0.00	0.00	0.00	0.00005	0.03230	0.00005	0.000137	0.00139	-	0.023	0.0006	0.395	-
		Relative Percent Difference	3.3	10.9	6.1	0.0	0.0	1.9	6.9	0.0	0.0	7.7	12.5	0.0	5.7	0.0	10.4	5.9	-	4.5	3.3	2.6	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
SW-11	2024-07-10	WP2417255-004	0.00019	0.0089	0.0218	0.000063	0.00003	0.005	0.0000318	19.7	0.000005	0.00165	0.001680	0.0016	1.600	0.000142	0.0027	6.49	0.37800	0.000006	0.000501	0.00384	0.025
SW-11	2024-07-10	WP2417255-002	0.00018	0.0090	0.0217	0.000063	0.00003	0.005	0.0000309	19.7	0.000005	0.00168	0.001670	0.0017	1.570	0.000150	0.0028	6.44	0.37800	0.000007	0.000512	0.00395	0.045
Duplicates Averaged			0.00019	0.0090	0.0217500	0.0000630	0.00003	0.005	0.0000314	19.7	0.0000050	0.00167	0.001675	0.0017	1.585	0.000146	0.0028	6.47	0.37800	0.000007	0.0005065	0.0038950	0.035
Relative Percent Difference			5.3	1.0	0.5	0.0	0.0	0.0	2.8	0.0	0.0	1.8	0.6	2.5	1.9	5.6	3.7	0.8	0.0	4.7	2.2	2.9	80.0
SW-11	2024-11-02	MTWATR120424JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-11-02	MTWATR120424JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-02-10	WP2403349-004	0.00005	0.0018	0.012	0.00001	0.00003	0.005	0.0000025	13.8	0.000005	0.00037	0.000500	0.0009	0.836	0.000141	0.0018	4.75	0.15500	0.000003	0.000215	0.00063	0.015
DL-REF	2024-02-10	WP2403349-005	0.00005	0.0017	0.0116	0.00001	0.00003	0.005	0.0000025	13.7	0.000005	0.00037	0.000490	0.0008	0.815	0.000118	0.0025	4.76	0.16000	0.000003	0.0002	0.00062	0.015
Duplicates Averaged			0.00005	0.0018	0.0118000	0.0000100	0.00003	0.005	0.0000025	13.8	0.0000050	0.00037	0.000495	0.0008	0.826	0.000130	0.0022	4.76	0.15750	0.000003	0.0002075	0.0006250	0.015
Relative Percent Difference			0.0	4.9	3.3	0.0	0.0	0.0	0.0	0.7	0.0	0.0	2.0	13.3	2.5	16.3	38.9	0.2	3.2	0.0	7.0	1.6	0.0
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-01-24	TMWATR013124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2024-09-07	WP2421728-009	0.00005	0.0019	0.00709	0.00001	0.00003	0.005	0.0000025	9.8	0.000005	0.00005	0.000050	0.0001	0.035	0.000025	0.0016	2.35	0.00092	0.000003	0.000094	0.00025	0.025
SW-GL	2024-09-07	WP2421728-006	0.00005	0.0021	0.00734	0.00001	0.00003	0.005	0.0000025	9.6	0.000005	0.00005	0.000050	0.0001	0.073	0.000025	0.0015	2.30	0.01240	0.000003	0.000119	0.00025	0.025
Duplicates Averaged			0.00005	0.0020	0.0072150	0.0000100	0.00003	0.005	0.0000025	9.7	0.0000050	0.00005	0.000050	0.0001	0.054	0.000025	0.0016	2.33	0.00666	0.000003	0.0001065	0.0002500	0.025
Relative Percent Difference			0.0	8.4	3.5	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	108.6	0.0	6.3	2.1	1247.8	0.0	26.6	0.0	0.0
SW-GL	2024-11-03	WP2425500-009	0.00005	0.0016	0.00683	0.00001	0.00003	0.005	0.0000025	9.3	0.000005	0.00005	0.000050	0.0001	0.070	0.000025	0.0014	2.24	0.00469	0.000003	0.000073	0.00025	-
SW-GL	2024-11-03	WP2425500-007	0.00005	0.0016	0.00694	0.00001	0.00003	0.005	0.0000025	9.2	0.000005	0.00005	0.000050	0.0001	0.070	0.000025	0.0013	2.19	0.00467	0.000003	0.000082	0.00025	-
Duplicates Averaged			0.00005	0.0016	0.0068850	0.0000100	0.00003	0.005	0.0000025	9.3	0.0000050	0.00005	0.000050	0.0001	0.070	0.000025	0.0014	2.22	0.00468	0.000003	0.0000775	0.0002500	-
Relative Percent Difference			0.0	1.9	1.6	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	7.1	2.2	0.4	0.0	12.3	0.0	-
SW-GL	2024-12-02	WP2426974-008	0.00005	0.0017	0.00687	0.00001	0.00003	0.005	0.0000025	8.5	0.000005	0.00092	0.000050	0.0046	0.191	0.000025	0.0019	2.03	0.00730	0.000003	0.000147	0.00522	-
SW-GL	2024-12-02	WP2426974-002	0.00005	0.0016	0.00698	0.00001	0.00003	0.005	0.0000025	8.6	0.000005	0.00077	0.000050	0.0045	0.189	0.000025	0.0012	1.94	0.00725	0.000003	0.000154	0.00418	-
Duplicates Averaged			0.00005	0.0016	0.0069250	0.0000100	0.00003	0.005	0.0000025	8.5	0.0000050	0.00085	0.000050	0.0045	0.190	0.000025	0.0016	1.99	0.00728	0.000003	0.0001505	0.0047000	-
Relative Percent Difference			0.0	3.6	1.6	0.0	0.0	0.0	0.0	1.3	0.0	16.3	0.0	1.8	1.0	0.0	36.8	4.4	0.7	0.0	4.8	19.9	-
SW-01	2024-03-07	WP2405786-002	0.00017	0.0052	0.00904	0.00001	0.00003	0.005	0.0000109	8.2	0.000005	0.00069	0.000620	0.0005	0.929	0.000120	0.0012	2.21	0.10900	0.000003	0.000093	0.00075	0.015
SW-01	2024-03-07	WP2405786-003	0.00017	0.0053	0.00977	0.00001	0.00003	0.005	0.0000098	8.3	0.000005	0.00065	0.000630	0.0006	0.939	0.000117	0.0012	2.19	0.11000	0.000003	0.00007	0.00082	0.015
Duplicates Averaged			0.00017	0.0052	0.0094050	0.0000100	0.00003	0.005	0.0000104	8.2	0.0000050	0.00067	0.000625	0.0006	0.934	0.000119	0.0012	2.20	0.10950	0.000003	0.0000815	0.0007850	0.015
Relative Percent Difference			0.0	1.3	8.1	0.0	0.0	0.0	10.1	2.1	0.0	5.8	1.6	7.4	1.1	2.5	0.0	0.9	0.9	0.0	24.7	9.3	0.0
SW-01	2024-06-16	WP2415267-004	0.00015	0.0048	0.00798	0.000022	0.00003	0.005	0.00001	6.8	0.000005	0.00086	0.000350	0.0008	0.783	0.000203	0.0013	1.73	0.03180	0.000006	0.000109	0.00105	0.015
SW-01	2024-06-16	WP2415267-003	0.00015	0.0049	0.00811	0.000025	0.00003	0.005	0.0000093	6.8	0.000005	0.00090	0.000340	0.0008	0.777	0.000213	0.0012	1.78	0.03220	0.000006	0.000073	0.00109	0.015
Duplicates Averaged			0.00015	0.0048	0.0080450	0.0000235	0.00003	0.005	0.0000097	6.8	0.0000050	0.00088	0.000345	0.0008	0.780	0.000208	0.0013	1.76	0.03200	0.000006	0.0000910	0.0010700	0.015
Relative Percent Difference			0.0	3.2	1.6	13.6	0.0	0.0	7.0	0.9	0.0	4.7	2.9	2.4	0.8	4.9	7.7	2.9	1.3	3.2	33.0	3.8	0.0
SW-01	2024-07-08	WP2417256-002	0.00014	0.0053	0.009	0.000023	0.00003	0.005	0.0000071	8.1	0.000005	0.00093	0.000230	0.0008	0.788	0.000184	0.0005	1.98	0.01630	0.000007	0.000064	0.00115	0.015
SW-01	2024-07-08	WP2417256-003	0.00005	0.0001	0.00005	0.00001	0.00003	0.005	0.0000025	0.0	0.000005	0.00005	0.000050	0.0001	0.005	0.000025	0.0005	0.00	0.00005	0.000003	0.000025	0.00025	0.015
Duplicates Averaged			0.00010	0.0027	0.0045250	0.0000165	0.00003	0.005	0.0000048	4.1	0.0000050	0.00049	0.000140	0.0004	0.397	0.000105	0.0005	0.99	0.00818	0.000005	0.0000445	0.0007000	0.015
Relative Percent Difference			64.3	99.1	99.4	56.5	0.0	0.0	64.8	99.7	0.0	94.6	78.3	86.8	99.4	86.4	0.0	99.9	99.7	61.5	60.9	78.3	0.0
SW-01	2024-10-02	TMWATR102524ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-10-02	TMWATR102524ZB1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-11-02	WP2425500-014	0.00017	0.0045	0.00487	0.00001	0.00003	0.005	0.0000025	8.3	0.000005	0.00091	0.000110	0.0009	0.625	0.000119	0.0015	2.33	0.00563	0.000003	0.000078	0.001	-
SW-01	2024-11-02	WP2425500-013	0.00018	0.0044	0.00539	0.000022	0.00003	0.005	0.0000087	8.2	0.000005	0.00090	0.000120	0.0009	0.630	0.000118	0.0015	2.33	0.00685	0.000003	0.000086	0.00131	-
Duplicates Averaged			0.00018	0.0044	0.01	0.00	0.00003	0.005	0.00	8.2	0.00	0.00091	0.000115	0.0009	0.628	0.000119	0.0015	2.33	0.00624	0.000003	0.0001	0.0012	-
Relative Percent Difference			5.9	2.9	10.7	120.0	0.0	0.0	248.0	0.1	0.0	1.1	9.1	3.3	0.8	0.8	0.0	0.0	21.7	0.0	10.3	31.0	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
SW-11	2024-07-10	WP2417255-004	-	1.51	0.00208	0.00013	5.72	0.000005	5.10	0.0514	0.7	0.0001	0.000005	0.00036	0.00005	0.01250	0.00036	0.000172	0.00210	-	0.002	0.002	-	-
SW-11	2024-07-10	WP2417255-002	-	1.51	0.00211	0.00031	5.86	0.000005	5.08	0.0506	0.3	0.0001	0.000005	0.00035	0.00005	0.01270	0.00037	0.00018	0.00209	-	0.002	0.002	-	-
Duplicates Averaged			-	1.51	0.00210	0.00022	5.79	0.000005	5.09	0.0510	0.5	0.00010	0.0000050	########	0.00005	0.01260	0.00037	0.0001760	0.00210	-	0.002	0.002	-	-
Relative Percent Difference			-	0.0	1.4	140.6	2.4	0.0	0.4	1.6	65.3	0.0	0.0	2.8	0.0	1.6	2.8	4.7	0.5	-	0.0	1.6	-	-
SW-11	2024-11-02	MTWATR120424JS2-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.090	-
SW-11	2024-11-02	MTWATR120424JS2-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.965	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.028	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.5	-
DL-REF	2024-02-10	WP2403349-004	-	1.17	0.00203	0.00011	3.36	0.000005	2.12	0.0364	0.7	0.0001	0.000005	0.00005	0.00005	0.00277	0.00005	0.000275	0.00070	-	0.003	0.000	-	-
DL-REF	2024-02-10	WP2403349-005	-	1.14	0.00198	0.00012	3.30	0.000005	2.03	0.0345	0.7	0.0001	0.000005	0.00005	0.00005	0.00266	0.00005	0.00026	0.00072	-	0.003	0.000	-	-
Duplicates Averaged			-	1.16	0.00201	0.00012	3.33	0.000005	2.08	0.0355	0.7	0.00010	0.0000050	0.00005	0.00005	0.00272	0.00005	0.0002675	0.00071	-	0.003	0.000	-	-
Relative Percent Difference			-	2.6	2.5	4.4	1.8	0.0	4.2	5.2	5.8	0.0	0.0	0.0	0.0	4.0	0.0	5.5	2.9	-	30.8	11.8	-	-
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.39
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.37
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1
SW-GL	2024-01-24	TMWATR013124JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.77
SW-GL	2024-01-24	TMWATR013124JS1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.77
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.77
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0
SW-GL	2024-09-07	WP2421728-009	0.03	0.66	0.00177	0.00003	1.03	0.000005	1.13	0.0215	0.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000034	0.00025	-	0.001	0.000	-	-
SW-GL	2024-09-07	WP2421728-006	0.03	0.67	0.00174	0.00003	1.06	0.000005	1.15	0.0226	0.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000032	0.00025	-	0.001	0.000	-	-
Duplicates Averaged			0.030	0.66	0.00176	0.00003	1.05	0.000005	1.14	0.0221	0.3	0.00010	0.0000050	0.00005	0.00005	0.00015	0.00005	0.0000330	0.00025	-	0.001	0.000	-	-
Relative Percent Difference			0.0	1.4	1.7	0.0	2.9	0.0	1.8	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	-	0.0	0.0	-	-
SW-GL	2024-11-03	WP2425500-009	0.015	0.72	0.00174	0.00003	0.59	0.000005	1.19	0.0208	0.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000034	0.00025	-	0.001	0.000	-	-
SW-GL	2024-11-03	WP2425500-007	0.015	0.72	0.00178	0.00003	0.59	0.000005	1.17	0.0208	0.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000033	0.00025	-	0.001	0.000	-	-
Duplicates Averaged			0.015	0.72	########	0.00003	0.59	0.000005	1.18	0.0208	0.3	0.00010	0.0000050	0.00005	0.00005	0.00015	0.00005	0.0000335	0.00025	-	0.001	0.000	-	-
Relative Percent Difference			0.0	0.0	2.3	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	-	0.0	0.0	-	-
SW-GL	2024-12-02	WP2426974-008	0.015	0.53	0.00123	0.00003	1.80	0.000005	1.20	0.0197	0.6	0.0001	0.000005	0.00005	0.00005	0.00064	0.00005	0.000035	0.00025	-	0.001	0.000	-	-
SW-GL	2024-12-02	WP2426974-002	0.015	0.52	0.00138	0.00003	1.74	0.000005	1.09	0.0195	0.5	0.0001	0.000005	0.00005	0.00005	0.00052	0.00005	0.000038	0.00025	-	0.001	0.000	-	-
Duplicates Averaged			0.015	0.53	0.00131	0.00003	1.77	0.000005	1.15	0.0196	0.5	0.00010	0.0000050	0.00005	0.00005	0.00058	0.00005	0.0000365	0.00025	-	0.001	0.000	-	-
Relative Percent Difference			0.0	0.6	12.2	0.0	3.3	0.0	9.2	1.0	7.3	0.0	0.0	0.0	0.0	18.8	0.0	8.6	0.0	-	58.3	0.0	-	-
SW-01	2024-03-07	WP2405786-002	-	0.61	0.00185	0.00016	2.86	0.000005	1.49	0.0215	0.3	0.0001	0.000005	0.00014	0.00005	0.00358	0.00005	0.000075	0.00058	-	0.003	0.000	-	-
SW-01	2024-03-07	WP2405786-003	-	0.60	0.00187	0.00014	2.94	0.000005	1.54	0.0214	0.3	0.0001	0.000005	0.00015	0.00005	0.00370	0.00005	0.000072	0.00059	-	0.004	0.000	-	-
Duplicates Averaged			-	0.60	0.00186	0.00015	2.90	0.000005	1.52	0.0215	0.3	0.00010	0.0000050	0.00015	0.00005	0.00364	0.00005	0.0000735	0.00059	-	0.004	0.000	-	-
Relative Percent Difference			-	2.5	1.1	15.3	2.8	0.0	3.4	0.5	0.0	0.0	0.0	7.1	0.0	3.4	0.0	4.0	1.7	-	11.8	0.0	-	-
SW-01	2024-06-16	WP2415267-004	-	0.08	0.00022	0.00014	2.56	0.000005	1.15	0.0183	0.5	0.0001	0.000005	0.00018	0.00005	0.00481	0.00005	0.000096	0.00084	-	0.003	0.001	-	-
SW-01	2024-06-16	WP2415267-003	-	0.09	0.00027	0.00017	2.60	0.000005	1.19	0.0184	0.6	0.0001	0.000005	0.00018	0.00005	0.00502	0.00005	0.000092	0.00086	-	0.002	0.001	-	-
Duplicates Averaged			-	0.09	0.00025	0.00016	2.58	0.000005	1.17	0.0184	0.5	0.00010	0.0000050	0.00018	0.00005	0.00492	0.00005	0.0000940	0.00085	-	0.002	0.001	-	-
Relative Percent Difference			-	17.9	22.7	22.5	1.6	0.0	3.5	0.5	1.9	0.0	0.0	0.0	0.0	4.4	0.0	4.2	2.4	-	8.0	4.9	-	-
SW-01	2024-07-08	WP2417256-002	-	0.03	0.0001	0.00018	3.03	0.000005	1.14	0.0209	0.3	0.0001	0.000005	0.00018	0.00005	0.00492	0.00005	0.000105	0.00076	-	0.002	0.001	-	-
SW-01	2024-07-08	WP2417256-003	-	0.03	0.0001	0.00003	0.03	0.000005	0.03	0.0001	0.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000005	0.00025	-	0.001	0.000	-	-
Duplicates Averaged			-	0.03	0.00010	0.00010	1.53	0.000005	0.58	0.0105	0.3	0.00010	0.0000050	0.00012	0.00005	0.00254	0.00005	0.0000550	0.00051	-	0.001	0.000	-	-
Relative Percent Difference			-	0.0	0.0	86.2	99.2	0.0	97.8	99.5	0.0	0.0	0.0	72.2	0.0	97.0	0.0	95.2	67.1	-	79.2	75.0	-	-
SW-01	2024-10-02	TMWATR102524ZB1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.11
SW-01	2024-10-02	TMWATR102524ZB1-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.36
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.24
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1
SW-01	2024-11-02	WP2425500-014	0.03	0.27	0.00068	0.00013	1.19	0.000005	1.58	0.0209	0.3	0.0001	0.000005	0.00016	0.00005	0.00405	0.00005	0.000089	0.00025	-	0.017	0.001	-	-
SW-01	2024-11-02	WP2425500-013	0.015	0.26	0.00072	0.00016	1.20	0.000005	1.51	0.0216	0.3	0.0001	0.000005	0.00016	0.00005	0.00431	0.00005	0.000091	0.00025	-	0.017	0.001	-	-
Duplicates Averaged			0.02	0.26	0.00	0.00014	1.20	0.000005	1.55	0.0213	0.3	0.00	0.0000050	0.0002	0.00005	0.00418	0.00005	0.0001	0.00025	-	0.017	0.001	-	-
Relative Percent Difference			50.0	1.1	5.9	24.6	0.8	0.0	4.4	3.3	0.0	0.0	0.0	0.0	0.0	6.4	0.0	2.2	0.0	-	4.0	6.8	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
PL-01	2024-02-13	WP2403718-002	7.85	6.95	0.1	1.0	32.9	32.9	0.5	0.5	0.5	42.6	42.6	-	12.0	70.0	3.6	98.0
PL-01	2024-02-13	WP2403718-001	7.85	7.28	0.1	2.1	34.9	34.9	0.5	0.5	0.5	42.7	43.3	-	12.3	63.0	3.3	94.4
Duplicates Averaged			7.85	7.12	0.10	1.6	33.9	33.9	0.5	0.5	0.5	42.7	43.0	-	12.2	66.5	3.5	96.2
Relative Percent Difference			0.0	4.7	0.0	110.0	6.1	6.1	0.0	0.0	0.0	0.2	1.6	-	2.5	10.0	8.3	3.7
PL-02-B	2024-08-05	TMWATR091124CH1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02-B	2024-08-05	TMWATR091124CH1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	WP2412615-006	7.93	7.56	11.8	1.0	37.8	37.8	0.5	0.5	0.5	42.5	42.8	-	11.7	76.2	3.0	84.3
PL-05	2024-05-20	WP2412615-005	7.93	7.56	11.8	1.0	37.8	37.8	0.5	0.5	0.5	41.9	42.0	-	12.9	74.6	3.5	86.1
Duplicates Averaged			7.93	7.56	11.80	1.0	37.8	37.8	0.5	0.5	0.5	42.2	42.4	-	12.3	75.4	3.3	85.2
Relative Percent Difference			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.9	-	10.3	2.1	16.7	2.1
PL-05	2024-05-20	TMWATR061924CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	TMWATR061924CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2023-10-10	WP2326292	7.73	7.5	11.4	2.7	30.8	30.8	0.5	0.5	0.5	38.0	36.7	-	15.5	62.9	5	84.2
CR-REF	2023-10-10	WP2326292-009	7.73	7.52	11.4	2.7	31.4	31.4	0.5	0.5	0.5	38.7	36.8		15.3	62.6	17.4	84.7
Duplicates Averaged			7.73	7.51	11.40	2.7	31.1	31.1	0.5	0.5	0.5	38.4	36.8	-	15.4	62.8	11.2	84.5
Relative Percent Difference			0.0	0.3	0.0	0.0	1.9	1.9	0.0	0.0	0.0	1.8	0.3	-	1.3	0.5	248.0	0.6
CR-FDP	2022-06-05	MTWATR061722JS2-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2022-06-05	MTWATR061722JS2-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-DS	2023-07-18	WP2316178-002	7.75	7.58	19	1.0	35.8	35.8	0.5	0.5	0.5	44.8	41.1		12.9	72.3	3.9	92.4
CR-DS	2023-07-18	WP2316178-001	7.75	7.56	19	1.0	36.0	36.0	0.5	0.5	0.5	45.0	43.2		12.8	77.6	3.8	92.4
Duplicates Averaged			7.75	7.57	19.00	1.0	35.9	35.9	0.5	0.5	0.5	44.9	42.2	-	12.9	75.0	3.9	92.4
Relative Percent Difference			0.0	0.3	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.4	5.1	-	0.8	7.3	2.6	0.0
DL-REF	2023-08-09	MTWATR082323JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2023-08-09	MTWATR082323JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
PL-01	2024-02-13	WP2403718-002	-	2.8	-	5.8	-	0.0005	0.01	0.001	0.09	0.09	0.02	-	-	0.0005	0.0005	0.0005	0.137	0.00030
PL-01	2024-02-13	WP2403718-001	-	2.7	-	5.8	-	0.0005	0.02	0.001	0.09	0.09	0.02	-	-	0.0005	0.0005	0.0005	0.132	0.00030
Duplicates Averaged			-	2.7	-	5.8	-	0.0005	0.01	0.001	0.09	0.09	0.02	-	-	0.0005000	0.0005000	0.0005000	0.135	0.00030
Relative Percent Difference			-	0.7	-	0.2	-	0.0	51.8	0.0	0.1	0.1	2.5	-	-	0.0	0.0	0.0	3.6	0.0
PL-02-B	2024-08-05	TMWATR091124CH1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02-B	2024-08-05	TMWATR091124CH1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	WP2412615-006	-	1.5	-	3.3	-	0.0005	0.01	0.001	0.01	0.01	0.02	-	-	0.0005	0.0005	0.0005	0.134	0.00018
PL-05	2024-05-20	WP2412615-005	-	1.5	-	3.3	-	0.0005	0.01	0.001	0.02	0.02	0.02	-	-	0.0005	0.0005	0.0005	0.132	0.00019
Duplicates Averaged			-	1.5	-	3.3	-	0.0005	0.01	0.001	0.01	0.01	0.02	-	-	0.0005000	0.0005000	0.0005000	0.133	0.00019
Relative Percent Difference			-	0.0	-	1.8	-	0.0	1.5	0.0	55.1	55.1	1.0	-	-	0.0	0.0	0.0	1.5	5.6
PL-05	2024-05-20	TMWATR061924CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	TMWATR061924CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2023-10-10	WP2326292	-	2.43	-	4.51	0.0184	0.0005	-	0.0016	0.0746	0.0762	0.0271	-	-	0.0005	0.0005	0.0005	0.244	0.00032
CR-REF	2023-10-10	WP2326292-009		2.48		4.5	0.0168	0.0005		0.0017	0.0722	0.0739	0.0343				0.0005	0.0005	0.386	0.00032
Duplicates Averaged			-	2.5	-	4.5	0.02	0.00	-	0.002	0.07	0.08	0.03	-	-	0.00	0.00	0.00	0.315	0.00032
Relative Percent Difference			-	2.1	-	0.2	8.7	0.0	-	6.2	3.2	3.0	26.6	-	-	100.0	0.0	0.0	58.2	0.0
CR-FDP	2022-06-05	MTWATR061722JS2-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2022-06-05	MTWATR061722JS2-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-DS	2023-07-18	WP2316178-002		2.33		4.49	0.011	0.0005		0.0005	0.0025	0.00255	0.0315				0.0005	0.0018	0.183	0.00029
CR-DS	2023-07-18	WP2316178-001		2.39		4.48	0.018	0.0005		0.0005	0.0025	0.00255	0.0365				0.0015	0.0024	0.184	0.00029
Duplicates Averaged			-	2.4	-	4.5	0.01	0.00	-	0.001	0.00	0.00	0.03	-	-	-	0.00	0.00	0.184	0.00029
Relative Percent Difference			-	2.6	-	0.2	63.6	0.0	-	0.0	0.0	0.0	15.9	-	-	-	200.0	33.3	0.5	0.0
DL-REF	2023-08-09	MTWATR082323JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2023-08-09	MTWATR082323JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
PL-01	2024-02-13	WP2403718-002	0.0080	0.0084	0.00001	0.000025	0.005	0.000003	11.9	0.000016	0.0004	0.000110	0.0015	0.189	0.000071	0.0028	3.13	0.01070	0.0000025	0.00020	0.00135	0.025	0.03
PL-01	2024-02-13	WP2403718-001	0.0081	0.0088	0.00001	0.000025	0.005	0.000003	11.9	0.000016	0.0005	0.000130	0.0017	0.193	0.000108	0.0024	3.15	0.01050	0.0000025	0.00019	0.0016	0.025	0.015
Duplicates Averaged			0.0080	0.0086	0.0000100	0.000025	0.005	0.000003	11.9	0.0000160	0.0004	0.000120	0.0016	0.1910000	0.000090	0.0026	3.14	0.01060	0.0000025	0.00020	0.0014750	0.025	0.0225000
Relative Percent Difference			1.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	15.4	18.2	15.1	2.1	52.1	14.3	0.64	1.9	0.0	1.0	18.5	0.0	50.0
PL-02-B	2024-08-05	TMWATR091124CH1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02-B	2024-08-05	TMWATR091124CH1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	WP2412615-006	0.0043	0.0088	0.00001	0.000025	0.005	0.000003	12.0	0.000014	0.0003	0.000050	0.0013	0.153	0.000056	0.0012	3.04	0.00966	0.0000025	0.00020	0.00097	0.025	0.015
PL-05	2024-05-20	WP2412615-005	0.0042	0.0088	0.00001	0.000025	0.005	0.000003	11.9	0.000015	0.0003	0.000050	0.0012	0.154	0.000051	0.0012	2.97	0.00980	0.0000025	0.00021	0.00094	0.025	0.015
Duplicates Averaged			0.0043	0.0088	0.0000100	0.000025	0.005	0.000003	12.0	0.0000145	0.0003	0.000050	0.0012	0.1535000	0.000054	0.0012	3.01	0.00973	0.0000025	0.00021	0.0009550	0.025	0.0150000
Relative Percent Difference			1.9	0.0	0.0	0.0	0.0	0.0	0.8	7.1	0.0	0.0	2.4	0.7	8.9	0.0	2.30	1.4	0.0	6.5	3.1	0.0	0.0
PL-05	2024-05-20	TMWATR061924CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	TMWATR061924CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2023-10-10	WP2326292	0.00986	0.00953	0.00001	0.000025	0.005	2.5E-06	10.7	0.000024	0.00059	0.00017	0.00168	0.284	0.00013	0.0014	2.74	0.0101	0.0000025	0.000244	0.00161	0.025	-
CR-REF	2023-10-10	WP2326292-009	0.00979	0.0104	0.00001	0.000025	0.005	6.5E-06	10.6	0.000045	0.00083	0.00023	0.00206	0.449	0.000245	0.0014	2.97	0.0131	0.0000025	0.000216	0.00183	0.015	
Duplicates Averaged			0.0098	0.0100	0.00	0.000025	0.005	0.000005	10.7	0.00	0.0007	0.000200	0.0019	0.37	0.000188	0.0014	2.86	0.01160	0.00	0.00023	0.00	0.020	-
Relative Percent Difference			0.7	9.1	0.0	0.0	0.0	160.0	0.9	87.5	40.7	35.3	22.6	58.1	88.5	0.0	8.39	29.7	0.0	11.5	13.7	40.0	-
CR-FDP	2022-06-05	MTWATR061722JS2-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2022-06-05	MTWATR061722JS2-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-DS	2023-07-18	WP2316178-002	0.0115	0.0101	0.00001	0.000025	0.005	2.5E-06	12.2	0.000016	0.00036	0.0001	0.00156	0.171	0.000087	0.0026	3.49	0.0122	0.0000025	0.00028	0.00139	0.038	
CR-DS	2023-07-18	WP2316178-001	0.0118	0.00999	0.00001	0.000025	0.005	2.5E-06	12.4	0.000017	0.00036	0.00011	0.00158	0.179	0.000089	0.0023	3.40	0.012	0.0000025	0.000314	0.00134	0.04	
Duplicates Averaged			0.0117	0.0100	0.00	0.000025	0.005	0.000003	12.3	0.00	0.0004	0.000105	0.0016	0.18	0.000088	0.0025	3.45	0.01210	0.00	0.00030	0.00	0.039	-
Relative Percent Difference			2.6	1.1	0.0	0.0	0.0	0.0	1.6	6.3	0.0	10.0	1.3	4.7	2.3	11.5	2.58	1.6	0.0	12.1	3.6	5.3	-
DL-REF	2023-08-09	MTWATR082323JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2023-08-09	MTWATR082323JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
PL-01	2024-02-13	WP2403718-002	1.12	0.00189	0.000086	2.11	0.000005	2.67	0.030	2.2	0.0001	0.000005	0.00005	0.00005	0.00700	0.00005	0.000110	0.00066	-	0.003	0.0001	0.009	-
PL-01	2024-02-13	WP2403718-001	1.11	0.0018	0.000097	2.05	0.000005	3.34	0.031	3.0	0.0001	0.000005	0.00005	0.00005	0.00637	0.00005	0.000116	0.00064	-	0.002	0.0001	0.010	-
Duplicates Averaged			1.12	0.0018450	0.0000915	2.08	0.0000050	3.01	0.030	2.6	0.0001000	0.0000050	0.0000500	0.00005	0.00669	0.00005	0.000113	0.00065	-	0.002	0.0001	0.009	-
Relative Percent Difference			0.9	4.8	12.8	2.8	0.0	25.1	3.4	38.6	0.0	0.0	0.0	0.0	9.0	0.0	5.5	3.0	-	54.5	0.0	4.3	-
PL-02-B	2024-08-05	TMWATR091124CH1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02-B	2024-08-05	TMWATR091124CH1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	WP2412615-006	1.01	0.00167	0.000025	2.00	0.000005	1.89	0.027	1.3	0.0001	0.000005	0.00005	0.00005	0.00515	0.00005	0.000095	0.00053	-	0.002	0.0001	0.017	-
PL-05	2024-05-20	WP2412615-005	1.01	0.0017	0.0002	2.00	0.000005	1.86	0.027	1.4	0.0001	0.000005	0.00005	0.00005	0.00525	0.00005	0.000094	0.00054	-	0.002	0.0001	0.018	-
Duplicates Averaged			1.01	0.0016850	0.0001125	2.00	0.0000050	1.88	0.027	1.4	0.0001000	0.0000050	0.0000500	0.00005	0.00520	0.00005	0.000095	0.00054	-	0.002	0.0001	0.017	-
Relative Percent Difference			0.0	1.8	700.0	0.0	0.0	1.6	1.1	10.9	0.0	0.0	0.0	0.0	1.9	0.0	1.1	1.9	-	0.0	0.0	8.4	-
PL-05	2024-05-20	TMWATR061924CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	TMWATR061924CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2023-10-10	WP2326292	1.04	0.00211	0.000101	2.85	0.000005	2.34	0.0292	1.76	0.0001	0.000005	0.00005	0.00005	0.0102	0.00005	0.000121	0.00097	-	0.0015	0.00034	0.0411	-
CR-REF	2023-10-10	WP2326292-009	1.15	0.00235	0.000119	3.07	0.000005	2.39	0.0291	1.6	0.0001	0.000005	0.0001	0.00005	0.0182	0.00005	0.000143	0.00127		0.0015	0.00032	0.0381	
Duplicates Averaged			1.10	0.00	0.00	2.96	0.00	2.37	0.029	1.7	0.00	0.00	0.00	0.00005	0.01420	0.00005	0.000132	0.00112	-	0.002	0.0003	0.040	-
Relative Percent Difference			10.6	11.4	17.8	7.7	0.0	2.1	0.3	9.1	0.0	0.0	100.0	0.0	78.4	0.0	18.2	30.9	-	0.0	5.9	7.3	-
CR-FDP	2022-06-05	MTWATR061722JS2-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2022-06-05	MTWATR061722JS2-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-DS	2023-07-18	WP2316178-002	1.12	0.0021	0.000091	2.16	0.000005	2.57	0.03	1.79	0.0001	0.000005	0.00005	0.00005	0.00643	0.00005	0.000128	0.00103		0.0015	0.0003	0.0409	
CR-DS	2023-07-18	WP2316178-001	1.11	0.00204	0.000102	2.09	0.000005	2.65	0.0311	1.92	0.0001	0.000005	0.00005	0.00005	0.00683	0.00005	0.000131	0.00106		0.0015	0.00021	0.0397	
Duplicates Averaged			1.12	0.00	0.00	2.13	0.00	2.61	0.031	1.9	0.00	0.00	0.00	0.00005	0.00663	0.00005	0.000130	0.00105	-	0.002	0.0003	0.040	-
Relative Percent Difference			0.9	2.9	12.1	3.2	0.0	3.1	3.7	7.3	0.0	0.0	0.0	0.0	6.2	0.0	2.3	2.9	-	0.0	30.0	2.9	-
DL-REF	2023-08-09	MTWATR082323JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2023-08-09	MTWATR082323JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
PL-01	2024-02-13	WP2403718-002	0.00029	0.0079	0.00808	0.00001	0.00003	0.005	0.0000025	12.0	0.000005	0.00011	0.000050	0.0012	0.048	0.000025	0.0025	3.06	0.00707	0.000003	0.000226	0.00111	0.015
PL-01	2024-02-13	WP2403718-001	0.00029	0.0079	0.00805	0.00001	0.00003	0.005	0.0000025	12.2	0.000005	0.00012	0.000050	0.0012	0.046	0.000025	0.0026	3.11	0.00714	0.000003	0.000213	0.0011	0.015
Duplicates Averaged			0.00029	0.0079	0.0080650	0.0000100	0.00003	0.005	0.0000025	12.1	0.0000050	0.00012	0.000050	0.0012	0.047	0.000025	0.0026	3.09	0.00711	0.000003	0.0002195	0.0011050	0.015
Relative Percent Difference			0.0	0.4	0.4	0.0	0.0	0.0	0.0	1.7	0.0	9.1	0.0	0.9	4.2	0.0	4.0	1.6	1.0	0.0	5.8	0.9	0.0
PL-02-B	2024-08-05	TMWATR091124CH1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02-B	2024-08-05	TMWATR091124CH1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2024-08-05	MTWATR091624JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-02-13	MTWATR030824JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	WP2412615-006	0.00018	0.0032	0.00743	0.00001	0.00003	0.005	0.0000025	12.2	0.000005	0.00005	0.000050	0.0010	0.029	0.000025	0.0018	3.01	0.00082	0.000003	0.000203	0.00079	0.015
PL-05	2024-05-20	WP2412615-005	0.00016	0.0032	0.00767	0.00001	0.00003	0.005	0.0000025	12.2	0.000005	0.00013	0.000050	0.0010	0.030	0.000025	0.0018	2.80	0.00080	0.000003	0.000195	0.00074	0.015
Duplicates Averaged			0.00017	0.0032	0.0075500	0.0000100	0.00003	0.005	0.0000025	12.2	0.0000050	0.00009	0.000050	0.0010	0.030	0.000025	0.0018	2.91	0.00081	0.000003	0.0001990	0.0007650	0.015
Relative Percent Difference			11.1	0.6	3.2	0.0	0.0	0.0	0.0	0.0	0.0	160.0	0.0	0.0	3.4	0.0	0.0	7.0	2.4	0.0	3.9	6.3	0.0
PL-05	2024-05-20	TMWATR061924CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	TMWATR061924CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-05	2024-05-20	MTWATR061024JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	TMWATR111022ZB3-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2022-10-12	MTWATR110722JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-REF	2023-10-10	WP2326292	0.00031	0.00878	0.00812	0.00001	0.000025	0.005	0.0000025	10.3	0.000005	0.00005	0.00005	0.00139	0.072	0.000025	0.0005	2.67	0.00314	0.000003	0.000204	0.0013	0.025
CR-REF	2023-10-10	WP2326292-009	0.00032	0.00918	0.00775	0.00001	0.000025	0.005	0.0000025	10.3	0.000005	0.00017	0.00005	0.00145	0.073	0.000025	0.0005	2.68	0.00332	0.000003	0.000202	0.00131	0.015
Duplicates Averaged			0.00032	0.0090	0.01	0.00	0.00003	0.005	0.00	10.3	0.00	0.00011	0.000050	0.0014	0.073	0.000025	0.0005	2.68	0.00323	0.000003	0.0002	0.0013	0.020
Relative Percent Difference			3.2	4.6	4.6	0.0	0.0	0.0	0.0	0.0	0.0	240.0	0.0	4.3	1.4	0.0	0.0	0.4	5.7	0.0	1.0	0.8	40.0
CR-FDP	2022-06-05	MTWATR061722JS2-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-FDP	2022-06-05	MTWATR061722JS2-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CR-DS	2023-07-18	WP2316178-002	0.00027	0.0107	0.00896	0.00001	0.000025	0.005	0.0000025	11.9	0.000005	0.00014	0.00005	0.00122	0.051	0.000025	0.0017	2.77	0.00106	0.000003	0.000251	0.00104	0.015
CR-DS	2023-07-18	WP2316178-001	0.00029	0.0113	0.00892	0.00001	0.000025	0.005	0.0000025	12	0.000005	0.00014	0.00005	0.0014	0.046	0.000025	0.0016	3.22	0.00104	0.000003	0.00029	0.00116	0.015
Duplicates Averaged			0.00028	0.0110	0.01	0.00	0.00003	0.005	0.00	12.0	0.00	0.00014	0.000050	0.0013	0.049	0.000025	0.0017	3.00	0.00105	0.000003	0.0003	0.0011	0.015
Relative Percent Difference			7.4	5.6	0.4	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	14.8	9.8	0.0	5.9	16.2	1.9	0.0	15.5	11.5	0.0
DL-REF	2023-08-09	MTWATR082323JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2023-08-09	MTWATR082323JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
PL-01	2024-02-13	WP2403718-002	-	1.09	0.00164	0.00010	1.75	0.000005	2.57	0.0311	2.2	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000096	0.00025	-	0.001	0.00015	-	-
PL-01	2024-02-13	WP2403718-001	-	1.11	0.00177	0.00009	1.73	0.000005	2.67	0.0321	2.3	0.0001	0.000005	0.00005	0.00005	0.00031	0.00005	0.000101	0.00025	-	0.001	0.00015	-	-
Duplicates Averaged			-	1.10	0.0017	0.00009	1.74	0.000005	2.62	0.0316	2.2	0.0001	0.0000050	0.000050	0.00005	0.00023	0.00005	0.0000985	0.00025	-	0.001	0.00015	-	-
Relative Percent Difference			-	1.8	7.9	14.9	1.1	0.0	3.9	3.2	3.7	0.0	0.0	0.0	0.0	106.7	0.0	5.2	0.0	-	15.4	0.0	-	-
PL-02-B	2024-08-05	TMWATR091124CH1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.89
PL-02-B	2024-08-05	TMWATR091124CH1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.05
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.97
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3
PL-01	2024-08-05	MTWATR091624JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.062	-
PL-01	2024-08-05	MTWATR091624JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.063	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.063	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-
PL-05	2024-02-13	MTWATR030824JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.021	-
PL-05	2024-02-13	MTWATR030824JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.019	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.020	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.5	-
PL-05	2024-05-20	WP2412615-006	-	1.03	0.00132	0.00005	1.67	0.000005	1.88	0.0273	1.3	0.0001	0.000005	0.00005	0.00005	0.00047	0.00005	0.000084	0.00025	-	0.001	0.00015	-	-
PL-05	2024-05-20	WP2412615-005	-	1.03	0.00137	0.00003	1.63	0.000005	1.87	0.0263	1.4	0.0001	0.000005	0.00005	0.00005	0.00056	0.00005	0.000084	0.00025	-	0.001	0.00015	-	-
Duplicates Averaged			-	1.03	0.0013	0.00004	1.65	0.000005	1.88	0.0268	1.3	0.0001	0.0000050	0.0001	0.00005	0.00052	0.00005	0.0000840	0.00025	-	0.001	0.00015	-	-
Relative Percent Difference			-	0.0	3.8	53.7	2.4	0.0	0.5	3.7	7.8	0.0	0.0	0.0	0.0	19.1	0.0	0.0	0.0	-	0.0	0.0	-	-
PL-05	2024-05-20	TMWATR061924CH1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.24
PL-05	2024-05-20	TMWATR061924CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.26
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.25
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6
PL-05	2024-05-20	MTWATR061024JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.027	-
PL-05	2024-05-20	MTWATR061024JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.025	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.5	-
CR-REF	2022-10-12	TMWATR111022ZB3-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.94
CR-REF	2022-10-12	TMWATR111022ZB3-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.05
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	224.5
CR-REF	2022-10-12	MTWATR110722JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.031	-
CR-REF	2022-10-12	MTWATR110722JS1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.036	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.034	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.1	-
CR-REF	2023-10-10	WP2326292	-	1	0.00156	0.000099	2.3	0.000005	2.27	0.0274	1.91	0.0001	0.000005	0.00005	0.00005	0.00144	0.00005	0.000107	0.00025	-	0.0005	0.00015	0.029	0.88
CR-REF	2023-10-10	WP2326292-009		1.02	0.00154	0.000135	2.31	0.000005	2.36	0.0296	1.79	0.0001	0.000005	0.00005	0.00005	0.00135	0.00005	0.000109	0.00025		0.0005	0.00015		
Duplicates Averaged			-	1.01	0.00	0.00012	2.31	0.000005	2.32	0.0285	1.9	0.00	0.0000050	0.0001	0.00005	0.00140	0.00005	0.0001	0.00025	-	0.001	0.0002	0.029	0.9
Relative Percent Difference			-	2.0	1.3	36.4	0.4	0.0	4.0	8.0	6.3	0.0	0.0	0.0	0.0	6.3	0.0	1.9	0.0	-	0.0	0.0	100.0	100.0
CR-FDP	2022-06-05	MTWATR061722JS2-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.035	-
CR-FDP	2022-06-05	MTWATR061722JS2-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.038	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.3	-
CR-DS	2023-07-18	WP2316178-002		0.964	0.0019	0.000093	1.5	0.000005	2.16	0.0299	1.61	0.0001	0.000005	0.00005	0.00005	0.00121	0.00005	0.000124	0.00057		0.0005	0.00015	-	-
CR-DS	2023-07-18	WP2316178-001		1.03	0.00189	0.000116	1.69	0.000005	2.39	0.0313	1.74	0.0001	0.000005	0.00005	0.00005	0.00109	0.00005	0.000135	0.00058		0.0005	0.00015	-	-
Duplicates Averaged			-	1.00	0.00	0.00010	1.60	0.000005	2.28	0.0306	1.7	0.00	0.0000050	0.0001	0.00005	0.00115	0.00005	0.0001	0.00058	-	0.001	0.0002	-	-
Relative Percent Difference			-	6.8	0.5	24.7	12.7	0.0	10.6	4.7	8.1	0.0	0.0	0.0	0.0	9.9	0.0	8.9	1.8	-	0.0	0.0	-	-
DL-REF	2023-08-09	MTWATR082323JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.048	-
DL-REF	2023-08-09	MTWATR082323JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.043	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.046	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.4	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
DL-REF	2023-10-07	WP2325933-005	6.07	7.68	12.9	1.0	38.9	38.9	0.5	0.5	0.5	40.6	39.7	-	16.3	71.2	11.1	83.1
DL-REF	2023-10-07	WP2325933-004	6.07	7.55	12.9	1.0	38.1	38.1	0.5	0.5	0.5	41.4	39.5		18.5	70.6	7.5	82.1
Duplicates Averaged			6.07	7.62	12.90	1.0	38.5	38.5	0.5	0.5	0.5	41.0	39.6	-	17.4	70.9	9.3	82.6
Relative Percent Difference			0.0	1.7	0.0	0.0	2.1	2.1	0.0	0.0	0.0	2.0	0.5	-	13.5	0.8	32.4	1.2
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2023-03-21	CA15408-MAR23	6.63	7.11	1.4	1.0	49.0					56.2	55.2	20.0	21	74	5	105
SW-04	2023-03-21	CA15408-MAR23	6.63	7.2	7	1.0	48.0	-		-	-	58.3	59.1	21.0	21	83	5	103
Duplicates Averaged			6.63	7.16	4.20	1.0	48.5	-	-	-	-	57.3	57.2	20.5	21.0	78.5	5.0	104.0
Relative Percent Difference			0.0	1.3	400.0	0.0	2.0	-	-	-	-	3.7	7.1	5.0	0.0	12.2	0.0	1.9
SW-16	2022-10-17	TMWATR111022ZB3-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	TMWATR111022ZB3-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-02	2022-06-02	CA15185-JUN22		6.89		1.0	20.0					36.3	36.3	38.0	35	100	3	49
SW-02	2022-09-14	CA15185-JUN22	-	6.94	-	1.0	-	-	24.0	-	-	35.1	36.2	38.0	36	94	3	51
Duplicates Averaged			-	6.92	-	1.0	20.0	-	24.0	-	-	35.7	36.3	38.0	35.5	97.0	3.0	50.0
Relative Percent Difference			-	0.7	-	0.0	-	-	-	-	-	3.3	0.3	0.0	2.9	6.0	0.0	4.1
SW-01	2022-09-14	CA15266-SEP22	5.74	6.66	13.1	11.0	12.0					28.4	29.7	48.0	48	91	4	42
SW-01	2022-09-14	CA15266-SEP22	5.74	6.74	13.1	9.0	13.0					29.1	29.1	44.0	45	91	3	44
Duplicates Averaged			5.74	6.70	13.10	10.0	12.5	-	-	-	-	28.8	29.4	46.0	46.5	91.0	3.5	43.0
Relative Percent Difference			0.0	1.2	0.0	18.2	8.3	-	-	-	-	2.5	2.0	8.3	6.3	0.0	25.0	4.8
SW-08a	2023-12-07	WP2332136-002	8.24	7.54	0.2	2.5	49.1	49.1	0.5	0.5	0.5	52.3	53.7	-	16.4	82.5	4.5	102
SW-08a	2023-12-07	WP2332136-005	8.24	7.55	0.2	2.5	49.7	49.7	0.5	0.5	0.5	52.1	51.8		16.7	77.2	5	103
Duplicates Averaged			8.24	7.55	0.20	2.5	49.4	49.4	0.5	0.5	0.5	52.2	52.8	-	16.6	79.9	4.8	102.5
Relative Percent Difference			0.0	0.1	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.4	3.5	-	1.8	6.4	11.1	1.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
DL-REF	2023-10-07	WP2325933-005	-	0.3	-	0.58	0.008	0.0005	-	0.0005	0.0115	0.0115	0.0447	-	-	0.0005	0.0005	0.0005	0.16	0.00005
DL-REF	2023-10-07	WP2325933-004		0.73		0.57	0.008	0.0005		0.0005	0.0152	0.0152	0.0447				0.0005	0.0005	0.148	0.00005
Duplicates Averaged			-	0.5	-	0.6	0.01	0.00	-	0.001	0.01	0.01	0.04	-	-	0.00	0.00	0.00	0.154	0.00005
Relative Percent Difference			-	143.3	-	1.7	0.0	0.0	-	0.0	32.2	32.2	0.0	-	-	100.0	0.0	0.0	7.5	0.0
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2023-03-21	CA15408-MAR23		2	0.09	1			0.05	0.015	0.18	0.18			53	0.005	0.0025		0.281	0.00045
SW-04	2023-03-21	CA15408-MAR23	-	0.5	0.08	1	-	-	0.05	0.015	0.18	0.18	0.035	-	44	0.005	0.0025	-	0.3	0.00045
Duplicates Averaged			-	1.3	0.09	1.0	-	-	0.05	0.015	0.18	0.18	0.04	-	48.5	0.01	0.00	-	0.291	0.00045
Relative Percent Difference			-	75.0	11.1	0.0	-	-	0.0	0.0	0.0	0.0	-	-	17.0	0.0	0.0	-	6.8	0.0
SW-16	2022-10-17	TMWATR111022ZB3-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	TMWATR111022ZB3-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-02	2022-06-02	CA15185-JUN22		2	0.03	10			0.05	0.015	0.03	0.03			96	0.005			0.355	0.00045
SW-02	2022-09-14	CA15185-JUN22	-	3	0.03	-	-	-	0.05	0.015	0.03	0.03	0.021	-	96	0.005	-	-	0.355	0.00045
Duplicates Averaged			-	2.5	0.03	10.0	-	-	0.05	0.015	0.03	0.03	0.02	-	96.0	0.01	-	-	0.355	0.00045
Relative Percent Difference			-	50.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-	0.0	0.0
SW-01	2022-09-14	CA15266-SEP22		2	0.03	10			0.2	0.015	0.03	0.03			109	0.005			0.284	0.00045
SW-01	2022-09-14	CA15266-SEP22		2	0.08	1			0.05	0.015	0.03	0.03			134	0.005			0.29	0.00045
Duplicates Averaged			-	2.0	0.06	5.5	-	-	0.13	0.015	0.03	0.03	-	-	122	0.01	-	-	0.287	0.00045
Relative Percent Difference			-	0.0	166.7	90.0	-	-	75.0	0.0	0.0	0.0	-	-	22.9	0.0	-	-	2.1	0.0
SW-08a	2023-12-07	WP2332136-002	-	0.44	-	0.85	0.0306	0.0005	-	0.0018	0.0537	0.0555	0.0242	-	-	0.0005	0.0005	0.0005	0.189	0.00005
SW-08a	2023-12-07	WP2332136-005		0.43		0.86	0.0248	0.0005		0.0023	0.0531	0.0554	0.0231				0.0005	0.0005	0.185	0.00005
Duplicates Averaged			-	0.4	-	0.9	0.03	0.00	-	0.002	0.05	0.06	0.02	-	-	0.00	0.00	0.00	0.187	0.00005
Relative Percent Difference			-	2.3	-	1.2	19.0	0.0	-	27.8	1.1	0.2	4.5	-	-	100.0	0.0	0.0	2.1	0.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
DL-REF	2023-10-07	WP2325933-005	0.00243	0.00995	0.00001	0.000025	0.005	0.000006	10.8	0.000013	0.00025	0.00017	0.00082	0.385	0.000158	0.0015	3.31	0.0153	0.0000025	0.000251	0.00059	0.055	-
DL-REF	2023-10-07	WP2325933-004	0.00251	0.00994	0.00001	0.000025	0.005	6.6E-06	11	0.000013	0.00039	0.00016	0.00082	0.377	0.000147	0.0016	3.39	0.0146	0.0000025	0.000241	0.00062	0.056	
Duplicates Averaged			0.0025	0.0099	0.00	0.000025	0.005	0.000006	10.9	0.00	0.0003	0.000165	0.0008	0.38	0.000153	0.0016	3.35	0.01495	0.00	0.00025	0.00	0.056	-
Relative Percent Difference			3.3	0.1	0.0	0.0	0.0	10.0	1.9	0.0	56.0	5.9	0.0	2.1	7.0	6.7	2.42	4.6	0.0	4.0	5.1	1.8	-
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2023-03-21	CA15408-MAR23	0.0023	0.0133	0.000022	0.000005	0.005	0.000007	15.6		0.00079	0.000228	0.0013	1.05	0.00025		4.18	0.0685	0.000005	0.00027	0.001	0.03	
SW-04	2023-03-21	CA15408-MAR23	0.0024	0.01371	0.00002	0.000005	0.004	4.25E-06	16.2	-	0.00085	0.000245	0.0014	1.08	0.00023	-	4.31	0.06982	0.000005	0.00029	0.0011	0.035	-
Duplicates Averaged			0.0024	0.0135	0.00	0.000005	0.005	0.000006	15.9	-	0.0008	0.000237	0.0014	1.07	0.000240	-	4.25	0.06916	0.00	0.00028	0.00	0.033	-
Relative Percent Difference			4.3	3.1	9.1	0.0	20.0	39.3	3.8	-	7.6	7.5	7.7	2.9	8.0	-	3.11	1.9	0.0	7.4	10.0	16.7	-
SW-16	2022-10-17	TMWATR111022ZB3-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	TMWATR111022ZB3-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-02	2022-06-02	CA15185-JUN22	0.0039	0.0108	0.000015	0.000005	0.003	0.000006	10.8		0.00081	0.000219	0.0011	0.51	0.00018	0.0009	2.28	0.0104	0.000005	0.00008	0.0013	0.026	
SW-02	2022-09-14	CA15185-JUN22	0.004	0.011	0.000014	0.000005	0.004	0.000028	10.5	-	0.0015	0.00024	0.0015	0.577	0.00045	0.0009	2.19	0.0112	0.000005	0.00012	0.0014	0.021	-
Duplicates Averaged			0.0040	0.0109	0.00	0.000005	0.004	0.000017	10.7	-	0.0012	0.000230	0.0013	0.54	0.000315	0.0009	2.24	0.01080	0.00	0.00010	0.00	0.024	-
Relative Percent Difference			2.6	1.9	6.7	0.0	33.3	366.7	2.8	-	85.2	9.6	36.4	13.1	150.0	0.0	3.95	7.7	0.0	50.0	7.7	19.2	-
SW-01	2022-09-14	CA15266-SEP22	0.005	0.00679	0.000021	0.000005	0.007	1.5E-06	8.08		0.00091	0.000393	0.0005	1.15	0.00025		1.99	0.045	0.000005	0.00007	0.0009	0.025	
SW-01	2022-09-14	CA15266-SEP22	0.0051	0.00743	0.000022	0.000005	0.007	1.5E-06	8.22		0.00087	0.000367	0.0005	1.18	0.0003		2.08	0.043	0.000005	0.00007	0.0009	0.023	
Duplicates Averaged			0.0051	0.0071	0.00	0.000005	0.007	0.000002	8.2	-	0.0009	0.000380	0.0005	1.17	0.000275	-	2.04	0.04400	0.00	0.00007	0.00	0.024	-
Relative Percent Difference			2.0	9.4	4.8	0.0	0.0	0.0	1.7	-	4.4	6.6	0.0	2.6	20.0	-	4.52	4.4	0.0	0.0	0.0	8.0	-
SW-08a	2023-12-07	WP2332136-002	0.0015	0.0157	0.00001	0.000025	0.005	5.8E-06	14.2	0.000016	0.00025	0.00015	0.00086	0.398	0.000116	0.0014	4.10	0.0185	0.0000025	0.000223	0.0007	0.025	-
SW-08a	2023-12-07	WP2332136-005	0.00151	0.0155	0.00001	0.000025	0.005	6.4E-06	14.2	0.000018	0.00046	0.00015	0.00085	0.386	0.000114	0.0013	4.05	0.0184	0.0000025	0.000229	0.0007	0.015	
Duplicates Averaged			0.0015	0.0156	0.00	0.000025	0.005	0.000006	14.2	0.00	0.0004	0.000150	0.0009	0.39	0.000115	0.0014	4.08	0.01845	0.00	0.00023	0.00	0.020	-
Relative Percent Difference			0.7	1.3	0.0	0.0	0.0	10.3	0.0	12.5	84.0	0.0	1.2	3.0	1.7	7.1	1.22	0.5	0.0	2.7	0.0	40.0	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
DL-REF	2023-10-07	WP2325933-005	1.13	0.00225	0.000108	3	0.000005	1.54	0.0244	0.25	0.0001	0.000005	0.00005	0.00005	0.00535	0.00005	0.00018	0.00091	-	0.0015	0.0001	0.0483	-
DL-REF	2023-10-07	WP2325933-004	1.12	0.00242	0.000121	2.88	0.000005	1.71	0.0253	0.25	0.0001	0.000005	0.00005	0.00005	0.00505	0.00005	0.000173	0.00085		0.0015	0.0001	0.034	
Duplicates Averaged			1.13	0.00	0.00	2.94	0.00	1.63	0.025	0.3	0.00	0.00	0.00	0.00005	0.00520	0.00005	0.000177	0.00088	-	0.002	0.0001	0.041	-
Relative Percent Difference			0.9	7.6	12.0	4.0	0.0	11.0	3.7	0.0	0.0	0.0	0.0	0.0	5.6	0.0	3.9	6.6	-	0.0	0.0	29.6	-
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2023-03-21	CA15408-MAR23	1.24		0.00018	3.27	0.000025	1.88	0.0348	0.5		0.000005		0.0001	0.0114	0.00001	0.000363	0.00124	0.00034	0.004	0.001	0.072	0.072
SW-04	2023-03-21	CA15408-MAR23	1.28	-	0.0001	3.28	0.000025	1.99	0.03534	0.5	-	0.0000025	-	0.00003	0.01162	0.00001	0.00036	0.00125	0.00034	0.006	0.001	0.076	0.063
Duplicates Averaged			1.26	-	0.00	3.28	0.00	1.94	0.035	0.5	-	0.00	-	0.00007	0.01151	0.00001	0.000362	0.00125	0.00	0.005	0.0010	0.074	0.068
Relative Percent Difference			3.2	-	44.4	0.3	0.0	5.9	1.6	0.0	-	50.0	-	70.0	1.9	0.0	0.8	0.8	0.0	50.0	0.0	5.6	12.5
SW-16	2022-10-17	TMWATR111022ZB3-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	TMWATR111022ZB3-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-02	2022-06-02	CA15185-JUN22	0.895		0.00012	1.41	0.000025	0.95	0.0248	2		0.000005		0.00003		0.00001	0.000032	0.0011	0.00042	0.017	0.001		0.161
SW-02	2022-09-14	CA15185-JUN22	0.86	-	0.00011	1.4	0.000025	0.91	0.0254	2	-	0.000005	-	0.00022	-	0.00006	0.000051	0.00115	-	0.008	0.001	-	0.162
Duplicates Averaged			0.88	-	0.00	1.41	0.00	0.93	0.025	2.0	-	0.00	-	0.00013	-	0.00004	0.000042	0.00113	0.00	0.013	0.0010	-	0.162
Relative Percent Difference			3.9	-	8.3	0.7	0.0	4.2	2.4	0.0	-	0.0	-	633.3	-	500.0	59.4	4.5	-	52.9	0.0	-	0.6
SW-01	2022-09-14	CA15266-SEP22	0.152		0.00014	1.34	0.000025	0.99	0.0231	0.5		0.0000025		0.00003	0.00469	0.00015	0.000067	0.00086	0.00039	0.002	0.001	0.283	0.231
SW-01	2022-09-14	CA15266-SEP22	0.143		0.00013	1.38	0.000025	1	0.0236	0.5		0.0000025		0.00013	0.00483	0.00001	0.000074	0.00084	0.00041	0.004	0.001	0.26	0.24
Duplicates Averaged			0.15	-	0.00	1.36	0.00	1.00	0.023	0.5	-	0.00	-	0.00008	0.00476	0.00008	0.000071	0.00085	0.00	0.003	0.0010	0.272	0.236
Relative Percent Difference			5.9	-	7.1	3.0	0.0	1.0	2.2	0.0	-	0.0	-	333.3	3.0	93.3	10.4	2.3	5.1	100.0	0.0	8.1	3.9
SW-08a	2023-12-07	WP2332136-002	1.29	0.00231	0.000102	3.26	0.000013	1.89	0.0308	0.25	0.0001	0.000005	0.00005	0.00005	0.0076	0.00005	0.00018	0.00099	-	0.0015	0.00021	0.0339	-
SW-08a	2023-12-07	WP2332136-005	1.29	0.0023	0.00012	3.22	0.000014	1.88	0.0309	0.25	0.0001	0.000005	0.00005	0.00005	0.00801	0.00005	0.000174	0.00097		0.0015	0.0001	0.0238	
Duplicates Averaged			1.29	0.00	0.00	3.24	0.00	1.89	0.031	0.3	0.00	0.00	0.00	0.00005	0.00781	0.00005	0.000177	0.00098	-	0.002	0.0002	0.029	-
Relative Percent Difference			0.0	0.4	17.6	1.2	7.7	0.5	0.3	0.0	0.0	0.0	0.0	0.0	5.4	0.0	3.3	2.0	-	0.0	52.4	29.8	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
DL-REF	2023-10-07	WP2325933-005	0.00005	0.00214	0.00858	0.00001	0.000025	0.005	0.0000025	10.7	0.000005	0.00005	0.00005	0.00062	0.192	0.000083	0.0015	3.16	0.00354	0.000003	0.000267	0.00025	0.025
DL-REF	2023-10-07	WP2325933-004	0.00005	0.00222	0.00882	0.00001	0.000025	0.005	0.0000025	10.5	0.000005	0.00023	0.00005	0.00064	0.184	0.000078	0.0015	3.23	0.00401	0.000003	0.00024	0.00025	0.015
Duplicates Averaged			0.00005	0.0022	0.01	0.00	0.00003	0.005	0.00	10.6	0.00	0.00014	0.000050	0.0006	0.188	0.000081	0.0015	3.20	0.00378	0.0000	0.0003	0.0003	0.020
Relative Percent Difference			0.0	3.7	2.8	0.0	0.0	0.0	0.0	1.9	0.0	360.0	0.0	3.2	4.2	6.0	0.0	2.2	13.3	0.0	10.1	0.0	40.0
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-05-26	MTWATR060823JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-01	2023-10-10	MTWATR111923JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PL-02	2023-08-10	MTWATR082323JS1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-15	2022-06-05	TMWATR061322ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2023-12-09	MTWATR122023JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-04	2023-03-21	CA15408-MAR23	0.00045	0.0016	0.011	0.000012	0.000005	0.005	0.000005	15.4		0.00004	0.000073	0.0011	0.555	0.000045		4.06	0.033	0.000005	0.00026	0.0007	0.015
SW-04	2023-03-21	CA15408-MAR23	0.000375	0.0021	0.01371	0.000011	0.000005	0.006	0.000007	13.2	-	0.00048	0.000079	0.0011	0.608	0.00012	-	4.53	0.041	0.000005	0.00027	0.0008	0.017
Duplicates Averaged			0.00041	0.0019	0.01	0.00	0.00001	0.006	0.00	14.3	-	0.00026	0.000076	0.0011	0.582	0.000083	-	4.30	0.03700	0.000005	0.0003	0.0008	0.016
Relative Percent Difference			16.7	31.3	24.6	8.3	0.0	20.0	40.0	14.3	-	1100.0	8.2	0.0	9.5	166.7	-	11.6	24.2	0.0	3.8	14.3	13.3
SW-16	2022-10-17	TMWATR111022ZB3-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	TMWATR111022ZB3-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-16	2022-10-17	MTWATR110722JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-02	2022-06-02	CA15185-JUN22	0.00045	0.0042	0.00912	0.000012	0.000005	0.002	0.000013	10.9		0.0004	0.00009	0.0011	0.266	0.00033	0.0008	2.24	0.00209	0.000005	0.00006	0.001	0.007
SW-02	2022-09-14	CA15185-JUN22	0.00045	0.0037	0.00893	0.000013	0.000005	0.002	0.000025	10.8	-	0.00046	0.000087	0.0011	0.263	0.00035	0.0007	2.24	0.00215	0.000005	0.00008	0.0011	0.01
Duplicates Averaged			0.00045	0.0040	0.01	0.00	0.00001	0.002	0.00	10.9	-	0.00043	0.000089	0.0011	0.265	0.000340	0.0008	2.24	0.00212	0.000005	0.0001	0.0011	0.009
Relative Percent Difference			0.0	11.9	2.1	8.3	0.0	0.0	92.3	0.9	-	15.0	3.3	0.0	1.1	6.1	12.5	0.0	2.9	0.0	33.3	10.0	42.9
SW-01	2022-09-14	CA15266-SEP22	0.00045	0.0053	0.00755	0.000027	0.000005	0.005	0.000004	8.38		0.00085	0.000396	0.0005	1.16	0.00025		2.13	0.0456		0.00006	0.0008	0.011
SW-01	2022-09-14	CA15266-SEP22	0.00045	0.0055	0.00666	0.000017	0.000005	0.005	0.000006	8.3		0.0007	0.000092	0.0006	0.918	0.00017		2.04	0.00735		0.00006	0.0008	0.014
Duplicates Averaged			0.00045	0.0054	0.01	0.00	0.00001	0.005	0.00	8.3	-	0.00078	0.000244	0.0006	1.039	0.000210	-	2.09	0.02648	-	0.0001	0.0008	0.013
Relative Percent Difference			0.0	3.8	11.8	37.0	0.0	0.0	50.0	1.0	-	17.6	76.8	20.0	20.9	32.0	-	4.2	83.9	-	0.0	0.0	27.3
SW-08a	2023-12-07	WP2332136-002	0.00005	0.00143	0.0131	0.00001	0.000025	0.005	0.0000025	14.3	0.000005	0.00005	0.00005	0.00068	0.182	0.000062	0.0018	4.38	0.017	2.5E-06	0.000241	0.00054	0.025
SW-08a	2023-12-07	WP2332136-005	0.00005	0.0014	0.0129	0.00001	0.000025	0.005	0.0000025	14	0.000005	0.00018	0.00005	0.00068	0.161	0.000025	0.0017	4.1	0.0161	2.5E-06	0.000241	0.00025	0.015
Duplicates Averaged			0.00005	0.0014	0.01	0.00	0.00003	0.005	0.00	14.2	0.00	0.00012	0.000050	0.0007	0.172	0.000044	0.0018	4.24	0.01655	0.000003	0.0002	0.0004	0.020
Relative Percent Difference			0.0	2.1	1.5	0.0	0.0	0.0	0.0	2.1	0.0	260.0	0.0	0.0	11.5	59.7	5.6	6.4	5.3	0.0	0.0	53.7	40.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
DL-REF	2023-10-07	WP2325933-005	-	1.1	0.00202	0.000116	2.82	0.000005	1.42	0.0264	0.25	0.0001	0.000005	0.00005	0.00005	0.00144	0.00005	0.000162	0.00062	-	0.0005	0.00015		
DL-REF	2023-10-07	WP2325933-004		1.08	0.00206	0.000068	2.79	0.000005	1.48	0.0266	0.25	0.0001	0.000005	0.00005	0.00005	0.0011	0.00005	0.000155	0.00061		0.0005	0.00015		
Duplicates Averaged			-	1.09	0.00	0.00009	2.81	0.000005	1.45	0.0265	0.25	0.00	0.0000050	0.0001	0.00005	0.00127	0.00005	0.0002	0.00062	-	0.001	0.0002	-	-
Relative Percent Difference			-	1.8	2.0	41.4	1.1	0.0	4.2	0.8	0.0	0.0	0.0	0.0	0.0	23.6	0.0	4.3	1.6	-	0.0	0.0	-	-
DL-REF	2024-08-11	TMWATR091224CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.39
DL-REF	2024-08-11	TMWATR091224CH1-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1
PL-01	2023-05-26	MTWATR060823JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.047	-
PL-01	2023-05-26	MTWATR060823JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.053	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.050	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.8	-
PL-01	2023-10-10	MTWATR111923JS1-012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.078	-
PL-01	2023-10-10	MTWATR111923JS1-011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.084	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.081	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	-
PL-02	2023-08-10	MTWATR082323JS1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.021	-
PL-02	2023-08-10	MTWATR082323JS1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.021	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.021	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-
SW-15	2022-06-05	TMWATR061322ZB1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.18
SW-15	2022-06-05	TMWATR061322ZB1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.29
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3
SW-03	2023-12-09	MTWATR122023JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.032	-
SW-03	2023-12-09	MTWATR122023JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.032	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.032	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-
SW-04	2023-03-21	CA15408-MAR23		1.18		0.0001	2.6	0.000025	1.81	0.033	0.5		0.0000025		0.00003	0.00251	0.00001	0.000315	0.00066	0.00025	0.002	0.001		
SW-04	2023-03-21	CA15408-MAR23	-	1.26	-	0.00012	2.8	0.000025	2.025	0.0348	0.5	-	0.0000025	-	0.00003	0.00239	0.00001	0.000344	0.0007	0.00026	0.005	0.001		
Duplicates Averaged			-	1.22	-	0.00011	2.70	0.000025	1.92	0.0339	0.5	-	0.0000025	-	0.00003	0.00245	0.00001	0.0003	0.00068	0.00	0.004	0.001	-	-
Relative Percent Difference			-	6.8	-	20.0	7.7	0.0	11.9	5.5	0.0	-	0.0	-	0.0	4.8	0.0	9.2	6.1	4.0	150.0	0.0	-	-
SW-16	2022-10-17	TMWATR111022ZB3-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.83
SW-16	2022-10-17	TMWATR111022ZB3-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.8
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.8
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6
SW-16	2022-10-17	MTWATR110722JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.804	-
SW-16	2022-10-17	MTWATR110722JS1-008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.755	-
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.780	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-
SW-02	2022-06-02	CA15185-JUN22		0.858		0.00013	1.04	0.000025	0.93	0.0249			0.0000025		0.00011		0.00001	0.000027	0.00084	0.00038	0.008	0.001		
SW-02	2022-09-14	CA15185-JUN22	-	0.843	-	0.00011	1.04	0.000025	0.94	0.0234	-	-	0.0000025	-	0.0002	-	0.00001	0.000026	0.00081	-	0.008	0.001		
Duplicates Averaged			-	0.85	-	0.00012	1.04	0.000025	0.94	0.0242	-	-	0.0000025	-	0.00016	-	0.00001	0.0000	0.00083	0.00	0.008	0.001	-	-
Relative Percent Difference			-	1.7	-	15.4	0.0	0.0	1.1	6.0	-	-	0.0	-	81.8	-	0.0	3.7	3.6	-	0.0	0.0	-	-
SW-01	2022-09-14	CA15266-SEP22		0.152		0.00022	1.42	0.000025	1.04	0.024	0.5		0.0000025		0.00006	0.00446	0.00001	0.000074	0.00081	0.00041	0.002	0.001		
SW-01	2022-09-14	CA15266-SEP22		0.129		0.00034	1.44	0.000025	1.02	0.0234	0.5		0.0000025		0.00003	0.00375	0.00001	0.00007	0.00067	0.00036	0.001	0.001		
Duplicates Averaged			-	0.14	-	0.00028	1.43	0.000025	1.03	0.0237	0.5	-	0.0000025	-	0.00005	0.00411	0.00001	0.0001	0.00074	0.00	0.002	0.001	-	-
Relative Percent Difference			-	15.1	-	54.5	1.4	0.0	1.9	2.5	0.0	-	0.0	-	50.0	15.9	0.0	5.4	17.3	12.2	50.0	0.0	-	-
SW-08a	2023-12-07	WP2332136-002	-	1.29	0.00213	0.000112	2.84	0.000005	1.98	0.0314	0.25	0.0001	0.000005	0.00005	0.00005	0.00108	0.00005	0.000158	0.00025	-	0.0005	0.00015		
SW-08a	2023-12-07	WP2332136-005		1.27	0.00194	0.0001	2.81	0.000005	1.94	0.0312	0.25	0.0001	0.000005	0.00005	0.00005	0.00079	0.00005	0.00015	0.00025		0.0005	0.00015		
Duplicates Averaged			-	1.28	0.00	0.00011	2.83	0.000005	1.96	0.0313	0.3	0.00	0.0000050	0.0001	0.00005	0.00094	0.00005	0.0002	0.00025	-	0.001	0.000	-	-
Relative Percent Difference			-	1.6	8.9	10.7	1.1	0.0	2.0	0.6	0.0	0.0	0.0	0.0	0.0	26.9	0.0	5.1	0.0	-	0.0	0.0	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
SW-TR	2024-02-05	TMWATR022824CH1-005																
SW-TR	2024-02-05	TMWATR022824CH1-004																
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2023-06-10	WP2311799-001	8.14	7.68	19.9	1.0	33.7	33.7	0.5	0.5	0.5	34.6	31.6	-	11.8	44.2	1.4	63.6
SW-GL	2023-06-10	WP2311799-005	8.14	7.68	19.9	1.0	34.2	34.2	0.5	0.5	0.5	36.3	31.5		9.88	34.2	0.5	65.3
Duplicates Averaged			8.14	7.68	19.90	1.0	34.0	34.0	0.5	0.5	0.5	35.5	31.6	-	10.8	39.2	1.0	64.5
Relative Percent Difference			0.0	0.0	0.0	0.0	1.5	1.5	0.0	0.0	0.0	4.9	0.3	-	16.3	22.6	64.3	2.7
SW-18	2023-05-21	WP2309398-006	6.58	6.98	11.5	2.7	37.1	37.1	0.5	0.5	0.5	55.3	58.4		38.6	209	0.5	323
SW-18	2023-05-21	WP2309398-002	6.58	6.94	11.5	6.5	37.6	37.6	0.5	0.5	0.5	57.9	57.8	-	39.3	209	1.3	321
Duplicates Averaged			6.58	6.96	11.50	4.6	37.4	37.4	0.5	0.5	0.5	56.6	58.1	-	39.0	209.0	0.9	322.0
Relative Percent Difference			0.0	0.6	0.0	140.7	1.3	1.3	0.0	0.0	0.0	4.7	1.0	-	1.8	0.0	160.0	0.6
SW-14	2023-02-08	CA15284-FEB23	6.99	7.46		1.0	54.0					65.7	61.9	27.0	29	120	1	109
SW-14	2023-02-08	CA15284-FEB23	6.99	7.39	11	1.0	220.0	-	56.0	-	-	65.4	62.2	27.0	29	129	2	118
Duplicates Averaged			6.99	7.43	11.00	1.0	137.0	-	56.0	-	-	65.6	62.1	27.0	29.0	124.5	1.5	113.5
Relative Percent Difference			0.0	0.9	-	0.0	307.4	-	-	-	-	0.5	0.5	0.0	0.0	7.5	100.0	8.3
SW-10	2022-11-09	CA15304-NOV22	7.39	7.55	1.2	1.0	83.0					88.9	83.3	21.0	19	160	4	162
SW-10	2022-11-09	CA15304-NOV22	7.39	7.61	1.2	1.0	-	-	100.0	-	-	91.5	84.3	22.0	22	137	3	168
Duplicates Averaged			7.39	7.58	1.20	1.0	83.0	-	100.0	-	-	90.2	83.8	21.5	20.5	148.5	3.5	165.0
Relative Percent Difference			0.0	0.8	0.0	0.0	-	-	-	-	-	2.9	1.2	4.8	15.8	14.4	25.0	3.7
SW-10	2023-08-12	WP2319515	7.07	7.77	19.1	4.4	86.2	86.2	0.5	0.5	0.5	87.6	90.1		27.2	133	3.1	172
SW-10	2023-08-12	WP2319515	7.07	7.73	19.1	4.3	85.4	85.4	0.5	0.5	0.5	87.6	92.5	-	26.7	135	3.4	171
Duplicates Averaged			7.07	7.75	19.10	4.4	85.8	85.8	0.5	0.5	0.5	87.6	91.3	-	27.0	134.0	3.3	171.5
Relative Percent Difference			0.0	0.5	0.0	2.3	0.9	0.9	0.0	0.0	0.0	0.0	2.7	-	1.8	1.5	9.7	0.6
SW-11	2023-11-05	WP2328799	7.01	7.63	0.3	11.2	114.0	114.0	0.5	0.5	0.5	132.0	129.0		38.7	258	635	266
SW-11	2023-11-05	WP2328799	7.01	7.58	0.3	9.5	112.0	112.0	0.5	0.5	0.5	134.0	127.0	-	40.6	246	526	268
Duplicates Averaged			7.01	7.61	0.30	10.4	113.0	113.0	0.5	0.5	0.5	133.0	128.0	-	39.7	252.0	580.5	267
Relative Percent Difference			0.0	0.7	0.0	15.2	1.8	1.8	0.0	0.0	0.0	1.5	1.6	-	4.9	4.7	17.2	0.8
SW-08	2022-10-12	CA15286-OCT22	6.56	7.49	8	1.0	40.0					38.5	37.4	18.0	19	69	11	76
SW-08	2022-10-12	CA15286-OCT22	6.56	7.6	8	1.0	-	-	39.0	-	-	38.7	36.9	18.0	18	60	12	74
Duplicates Averaged			6.56	7.55	8.00	1.0	40.0	-	39.0	-	-	38.6	37.2	18.0	18.5	64.5	11.5	75
Relative Percent Difference			0.0	1.5	0.0	0.0	-	-	-	-	-	0.5	1.3	0.0	5.3	13.0	9.1	2.6
SW-08	2023-08-05	WP2318603-006	7.2	7.57	19.1	4.1	84.9	84.9	0.5	0.5	0.5	88.5	88.5		21.1	112	5.1	168
SW-08	2023-08-05	WP2318603	7.2	7.55	19.1	3.4	84.7	84.7	0.5	0.5	0.5	88.2	89.4	-	20.2	119	5.8	168
Duplicates Averaged			7.20	7.56	19.10	3.8	84.8	84.8	0.5	0.5	0.5	88.4	89.0	-	20.7	115.5	5.5	168
Relative Percent Difference			0.0	0.3	0.0	17.1	0.2	0.2	0.0	0.0	0.0	0.3	1.0	-	4.3	6.3	13.7	0.0
SW-08	2023-12-07	WP2332136	8.24	7.55	0.2	2.5	49.7	49.7	0.5	0.5	0.5	52.1	51.8		16.7	77.2	5	103
SW-08	2023-12-07	WP2332136	7.85	7.54	0.2	2.5	49.1	49.1	0.5	0.5	0.5	53.3	52.9	-	16.1	76.5	4.5	103
Duplicates Averaged			8.05	7.55	0.20	2.5	49.4	49.4	0.5	0.5	0.5	52.7	52.4	-	16.4	76.9	4.8	103
Relative Percent Difference			4.7	0.1	0.0	0.0	1.2	1.2	0.0	0.0	0.0	2.3	2.1	-	3.6	0.9	10.0	0.0
SW-01	2022-07-13	CA15242-JUL22	5.25	6.46	26.4	13.0	8.0					23.4	24.4	40.0	37	114	4	33
SW-01	2022-07-13	CA15242-JUL22	5.25	6.51	26.4	12.0	-	-	8.0	-	-	23.7	24.4	42.0	39	111	2	33
Duplicates Averaged			5.25	6.49	26.40	12.5	8.0	-	8.0	-	-	23.6	24.4	41.0	38.0	112.5	3.0	33
Relative Percent Difference			0.0	0.8	0.0	7.7	-	-	-	-	-	1.3	0.0	5.0	5.4	2.6	50.0	0.0
SW-01	2023-05-14	WP2308112	6.23	6.51	14.9	2.0	7.7	7.7	0.5	0.5	0.5	19.0	19.1		36.3	57	16.2	33.8
SW-01	2023-05-14	WP2308112	6.26	6.45	14.8	7.7	45.0	7.9	0.5	0.5	0.5	18.8	18.8	-	34.8	58.9	3.4	33.9
Duplicates Averaged			6.25	6.48	14.85	4.9	26.4	7.8	0.5	0.5	0.5	18.9	19.0	-	35.6	58.0	9.8	33.9
Relative Percent Difference			0.5	0.9	0.7	285.0	484.4	2.6	0.0	0.0	0.0	1.1	1.6	-	4.1	3.3	79.0	0.3

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
SW-TR	2024-02-05	TMWATR022824CH1-005																		
SW-TR	2024-02-05	TMWATR022824CH1-004																		
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2023-06-10	WP2311799-001	-	2.5	-	0.55	0.02	0.001	-	0.0746	0.125	0.125	0.0212	-	-	0.0013	0.0005	0.0005	0.0096	0.00005
SW-GL	2023-06-10	WP2311799-005		2.5		7.5	0.005	0.0005		0.025	0.125	0.1275	0.0096				0.0005	0.0005	0.0097	0.00005
Duplicates Averaged			-	2.5	-	4.0	0.01	0.00	-	0.050	0.13	0.13	0.02	-	-	0.00	0.00	0.00	0.010	0.00005
Relative Percent Difference			-	0.0	-	1263.6	75.0	50.0	-	66.5	0.0	2.0	54.7	-	-	100.0	0.0	0.0	1.0	0.0
SW-18	2023-05-21	WP2309398-006		72.6		1.08		0.0005	0.026	0.0005	0.0025	0.00255	0.0281				0.0018	0.0016	0.137	0.00005
SW-18	2023-05-21	WP2309398-002	-	72.1	-	1.08	0.041	0.0005	-	0.0005	0.0025	0.0025	0.0289	-	-	0.0017	0.0014	0.0016	0.152	0.00005
Duplicates Averaged			-	72.4	-	1.1	0.04	0.00	0.03	0.001	0.00	0.00	0.03	-	-	0.00	0.00	0.00	0.145	0.00005
Relative Percent Difference			-	0.7	-	0.0	-	0.0	-	0.0	0.0	2.0	2.8	-	-	-	22.2	0.0	10.9	0.0
SW-14	2023-02-08	CA15284-FEB23		8	0.06	1			0.7	0.015	0.07	0.07			62	0.005	0.0025	0.005	0.044	0.00045
SW-14	2023-02-08	CA15284-FEB23	-	8	0.06	1	-	-	0.7	0.015	0.03	0.035	0.022	-	69	0.005	0.0025	0.005	0.033	0.00045
Duplicates Averaged			-	8.0	0.06	1.0	-	-	0.70	0.015	0.05	0.05	0.02	-	65.5	0.01	0.00	0.01	0.039	0.00045
Relative Percent Difference			-	0.0	0.0	0.0	-	-	0.0	0.0	57.1	50.0	-	-	11.3	0.0	0.0	0.0	25.0	0.0
SW-10	2022-11-09	CA15304-NOV22		0.5	0.07	1			0.05	0.015	0.03	0.03			52	0.005	0.0025	0.005	0.042	0.00045
SW-10	2022-11-09	CA15304-NOV22	0.09	0.5	0.07	1	-	-	0.05	0.015	0.03	0.03	0.01	11.86	52	0.005	-	-	0.279	0.0011
Duplicates Averaged			0.09	0.5	0.07	1.0	-	-	0.05	0.015	0.03	0.03	0.01	11.86	52.0	0.01	0.00	0.01	0.161	0.00078
Relative Percent Difference			-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	-	564.3	144.4
SW-10	2023-08-12	WP2319515		0.3		0.8	0.063	0.0005		0.0005	0.0085	0.0085	0.0311				0.0005	0.0005	0.226	0.00005
SW-10	2023-08-12	WP2319515	-	0.34	-	0.78	0.005	0.0005	-	0.0005	0.0108	0.0108	0.0299	-	-	0.001	0.0005	0.0005	0.221	0.00005
Duplicates Averaged			-	0.3	-	0.8	0.03	0.00	-	0.001	0.01	0.01	0.03	-	-	0.00	0.00	0.00	0.224	0.00005
Relative Percent Difference			-	13.3	-	2.5	92.1	0.0	-	0.0	27.1	27.1	3.9	-	-	-	0.0	0.0	2.2	0.0
SW-11	2023-11-05	WP2328799		15.3		9.43		0.0005	0.0185	0.0005	0.0151	0.0151	0.358				0.0016	0.0013	1.28	0.00018
SW-11	2023-11-05	WP2328799	-	15.3	-	9.39	0.018	0.0005	-	0.0005	0.0085	0.0085	0.269	-	-	0.0013	0.0016	0.0014	2.33	0.00013
Duplicates Averaged			-	15.3	-	9.4	0.02	0.00	0.02	0.001	0.01	0.01	0.31	-	-	0.00	0.00	0.00	1.805	0.00016
Relative Percent Difference			-	0.0	-	0.4	-	0.0	-	0.0	43.7	43.7	24.9	-	-	-	0.0	7.7	82.0	27.8
SW-08	2022-10-12	CA15286-OCT22		0.5	0.08	1			0.05	0.015	0.08	0.08			44	0.005			0.497	0.00045
SW-08	2022-10-12	CA15286-OCT22	0.06	0.5	0.09	1	-	-	0.05	0.015	0.08	0.08	0.032	10.64	46	0.005	-	-	0.478	0.00045
Duplicates Averaged			0.06	0.5	0.09	1.0	-	-	0.05	0.015	0.08	0.08	0.03	10.64	45.0	0.01	-	-	0.488	0.00045
Relative Percent Difference			-	0.0	12.5	0.0	-	-	0.0	0.0	0.0	0.0	-	-	4.5	0.0	-	-	3.8	0.0
SW-08	2023-08-05	WP2318603-006		0.94		1.13	0.028	0.0005		0.0015	0.0025	0.00255	0.0387				0.0017	0.0012	0.315	0.00005
SW-08	2023-08-05	WP2318603	-	0.96	-	1.11	0.027	0.0005	-	0.0005	0.0025	0.0025	0.0399	-	-	0.0005	0.0014	0.0012	0.307	0.00005
Duplicates Averaged			-	1.0	-	1.1	0.03	0.00	-	0.001	0.00	0.00	0.04	-	-	0.00	0.00	0.00	0.311	0.00005
Relative Percent Difference			-	2.1	-	1.8	3.6	0.0	-	66.7	0.0	2.0	3.1	-	-	-	17.6	0.0	2.5	0.0
SW-08	2023-12-07	WP2332136		0.43		0.86		0.0005	0.0248	0.0023	0.0531	0.0554	0.0231				0.0005	0.0005	0.185	0.00005
SW-08	2023-12-07	WP2332136	-	0.48	-	0.89	0.03	0.0005	-	0.0023	0.0549	0.0572	0.0223	-	-	0.0005	0.0005	0.0005	0.184	0.00005
Duplicates Averaged			-	0.5	-	0.9	0.03	0.00	0.02	0.002	0.05	0.06	0.02	-	-	0.00	0.00	0.00	0.185	0.00005
Relative Percent Difference			-	11.6	-	3.5	-	0.0	-	0.0	3.4	3.2	3.5	-	-	-	0.0	0.0	0.5	0.0
SW-01	2022-07-13	CA15242-JUL22		2	0.03	1			0.05	0.015	0.07	0.07			97	0.005			0.388	0.00045
SW-01	2022-07-13	CA15242-JUL22	-	2	0.03	1	-	-	0.05	0.015	0.03	0.03	0.036	-	103	0.005	-	-	0.403	0.00045
Duplicates Averaged			-	2.0	0.03	1.0	-	-	0.05	0.015	0.05	0.05	0.04	-	100.0	0.01	-	-	0.396	0.00045
Relative Percent Difference			-	0.0	0.0	0.0	-	-	0.0	0.0	57.1	57.1	-	-	6.2	0.0	-	-	3.9	0.0
SW-01	2023-05-14	WP2308112		0.19		1.31		0.0005	0.011	0.0005	0.0025	0.00255	0.021				0.0014	0.0014	0.282	0.00013
SW-01	2023-05-14	WP2308112	-	0.21	-	1.31	0.06	0.0005	-	0.0005	0.0025	0.0025	0.0226	-	-	0.0013	0.0012	0.0005	0.295	0.00017
Duplicates Averaged			-	0.2	-	1.3	0.06	0.00	0.01	0.001	0.0025	0.0025	0.02	-	-	0.00	0.00	0.00	0.289	0.00015
Relative Percent Difference			-	10.5	-	0.0	-	0.0	-	0.0	0.0	2.0	7.6	-	-	-	14.3	64.3	4.6	30.8

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
SW-TR	2024-02-05	TMWATR022824CH1-005																					
SW-TR	2024-02-05	TMWATR022824CH1-004																					
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2023-06-10	WP2311799-001	0.00181	0.00746	0.00001	0.000025	0.005	2.5E-06	9.95	0.000016	0.00025	0.00005	0.00025	0.086	0.000025	0.0005	2.36	0.0072	0.0000025	0.000189	0.00025	0.025	-
SW-GL	2023-06-10	WP2311799-005	0.00188	0.00784	0.00001	0.000025	0.005	2.5E-06	10.5	0.000005	0.00012	0.00005	0.00025	0.092	0.000025	0.0011	2.44	0.00766	0.0000025	0.000109	0.00025	0.015	
Duplicates Averaged			0.0018	0.0077	0.00	0.000025	0.005	0.000003	10.2	0.00	0.0002	0.000050	0.0003	0.09	0.000025	0.0008	2.40	0.00743	0.00	0.00015	0.00025	0.020	-
Relative Percent Difference			3.9	5.1	0.0	0.0	0.0	0.0	5.5	68.8	52.0	0.0	0.0	7.0	0.0	120.0	3.39	6.4	0.0	42.3	0.0	40.0	-
SW-18	2023-05-21	WP2309398-006	0.00213	0.0148	0.00001	0.000025	0.005	0.000007	13.5	0.000005	0.00072	0.00025	0.00073	0.421	0.000071	0.002	5.24	0.0624	0.0000052	0.000276	0.00132	0.025	0.015
SW-18	2023-05-21	WP2309398-002	0.00228	0.0162	0.00001	0.000025	0.005	6.3E-06	14.5	0.000005	0.00053	0.00027	0.0007	0.435	0.000105	0.0021	5.27	0.0675	0.0000071	0.000314	0.00137	0.039	-
Duplicates Averaged			0.0022	0.0155	0.00	0.000025	0.005	0.000007	14.0	0.00	0.0006	0.000260	0.0007	0.43	0.000088	0.0021	5.26	0.06495	0.00	0.00030	0.00135	0.032	0.02
Relative Percent Difference			7.0	9.5	0.0	0.0	0.0	10.0	7.4	0.0	26.4	8.0	4.1	3.3	47.9	5.0	0.57	8.2	36.5	13.8	3.8	56.0	-
SW-14	2023-02-08	CA15284-FEB23	0.0052	0.0176	0.000009	0.000005	0.007	0.000004	17.9		0.00024	0.000096	0.0007	0.833	0.000045		5.09	0.129	0.000005	0.00027	0.0006	0.024	
SW-14	2023-02-08	CA15284-FEB23	0.0051	0.0178	0.000012	0.00015	0.034	0.000105	17.8	-	0.00028	0.0001	0.0008	0.885	0.0001	-	5.09	0.13	0.000005	0.00028	0.0006	0.022	-
Duplicates Averaged			0.0052	0.0177	0.00	0.000078	0.021	0.000055	17.9	-	0.0003	0.000098	0.0008	0.86	0.000073	-	5.09	0.12950	0.00	0.00028	0.00060	0.023	-
Relative Percent Difference			1.9	1.1	33.3	2900.0	385.7	2525.0	0.6	-	16.7	4.2	14.3	6.2	122.2	-	0.00	0.8	0.0	3.7	0.0	8.3	-
SW-10	2022-11-09	CA15304-NOV22	0.0018	0.0156	0.00003	0.000005	0.006	0.000005	23.6		0.00073	0.000176	0.0008	0.265	0.000045		7.28	0.02093	0.000005	0.0008	0.0007	0.021	
SW-10	2022-11-09	CA15304-NOV22	0.0021	0.0153	0.00001	0.00003	0.006	0.00008	24.5	-	0.00004	0.00002	0.0007	0.57	0.00022	-	7.37	0.0259	0.000005	0.00097	0.0009	0.01	-
Duplicates Averaged			0.0020	0.0155	0.00	0.000018	0.006	0.000043	24.1	-	0.0004	0.000098	0.0008	0.42	0.000133	-	7.33	0.02342	0.00	0.00089	0.00080	0.016	-
Relative Percent Difference			16.7	1.9	66.7	500.0	0.0	1500.0	3.8	-	94.5	88.6	12.5	115.1	388.9	-	1.24	23.7	0.0	21.3	28.6	52.4	-
SW-10	2023-08-12	WP2319515	0.00334	0.0162	0.00001	0.000025	0.005	2.5E-06	23.1	0.000017	0.00056	0.00018	0.00098	0.479	0.000117	0.0041	7.28	0.0812	0.0000025	0.000639	0.00103	0.031	
SW-10	2023-08-12	WP2319515	0.00321	0.0164	0.000022	0.000025	0.005	2.5E-06	23.1	0.000018	0.026	0.00042	0.00151	0.609	0.000126	0.0039	7.26	0.093	0.0000025	0.00402	0.0108	0.025	-
Duplicates Averaged			0.0033	0.0163	0.00	0.000025	0.005	0.000003	23.1	0.00	0.0133	0.000300	0.0012	0.54	0.000122	0.0040	7.27	0.08710	0.00	0.00233	0.01	0.028	-
Relative Percent Difference			3.9	1.2	120.0	0.0	0.0	0.0	0.0	5.9	4542.9	133.3	54.1	27.1	7.7	4.9	0.27	14.5	0.0	529.1	948.5	19.4	-
SW-11	2023-11-05	WP2328799	0.00515	0.0548	0.000077	0.000025	0.01	3.59E-05	32.9	0.000085	0.00281	0.00305	0.00258	3.88	0.00104	0.0044	12.10	0.953	0.0000025	0.000318	0.00407	0.157	0.157
SW-11	2023-11-05	WP2328799	0.00529	0.0636	0.000124	0.000025	0.005	4.92E-05	32.9	0.000128	0.00473	0.00395	0.00385	5.14	0.00211	0.0056	12.50	0.974	0.0000025	0.000286	0.00575	0.306	-
Duplicates Averaged			0.0052	0.0592	0.00	0.000025	0.008	0.000043	32.9	0.00	0.0038	0.003500	0.0032	4.51	0.001575	0.0050	12.30	0.96350	0.00	0.00030	0.0049	0.232	0.16
Relative Percent Difference			2.7	16.1	61.0	0.0	50.0	37.0	0.0	50.6	68.3	29.5	49.2	32.5	102.9	27.3	3.31	2.2	0.0	10.1	41.3	94.9	-
SW-08	2022-10-12	CA15286-OCT22	0.0019	0.0164	0.000024	0.000005	0.007	0.000005	10.7		0.00109	0.000249	0.0013	0.841	0.00039		2.85	0.0255	0.000005	0.00027	0.0011	0.032	
SW-08	2022-10-12	CA15286-OCT22	0.0019	0.0157	0.000021	0.000005	0.006	0.00001	10.8	-	0.00107	0.000242	0.0013	0.826	0.00035	-	2.87	0.0255	0.000005	0.00026	0.001	0.032	-
Duplicates Averaged			0.0019	0.0161	0.00	0.000005	0.007	0.000008	10.8	-	0.0011	0.000246	0.0013	0.83	0.000370	-	2.86	0.02550	0.00	0.00027	0.00	0.032	-
Relative Percent Difference			0.0	4.3	12.5	0.0	14.3	100.0	0.9	-	1.8	2.8	0.0	1.8	10.3	-	0.70	0.0	0.0	3.7	9.1	0.0	-
SW-08	2023-08-05	WP2318603-006	0.0031	0.0354	0.00001	0.000025	0.005	8.2E-06	25.7	0.00002	0.00057	0.00021	0.00139	0.63	0.000194	0.0031	5.90	0.121	0.0000025	0.000403	0.00121	0.046	
SW-08	2023-08-05	WP2318603	0.00311	0.0361	0.00001	0.000025	0.005	7.8E-06	25.8	0.000021	0.00052	0.00021	0.00136	0.641	0.000188	0.0032	5.77	0.123	0.0000025	0.000401	0.00118	0.025	-
Duplicates Averaged			0.0031	0.0358	0.00	0.000025	0.005	0.000008	25.8	0.00	0.0005	0.000210	0.0014	0.64	0.000191	0.0032	5.84	0.12200	0.00	0.00040	0.00	0.036	-
Relative Percent Difference			0.3	2.0	0.0	0.0	0.0	4.9	0.4	5.0	8.8	0.0	2.2	1.7	3.1	3.2	2.20	1.7	0.0	0.5	2.5	45.7	-
SW-08	2023-12-07	WP2332136	0.00151	0.0155	0.00001	0.000025	0.005	6.4E-06	14.2	0.000018	0.00046	0.00015	0.00085	0.386	0.000114	0.0013	4.05	0.0184	0.0000025	0.000229	0.0007	0.025	0.015
SW-08	2023-12-07	WP2332136	0.00154	0.0157	0.00001	0.000025	0.005	2.5E-06	14.5	0.000018	0.00025	0.00015	0.00087	0.389	0.000118	0.0015	4.16	0.0194	0.0000025	0.000235	0.00071	0.025	-
Duplicates Averaged			0.0015	0.0156	0.00	0.000025	0.005	0.000004	14.4	0.00	0.0004	0.000150	0.0009	0.39	0.000116	0.0014	4.11	0.01890	0.00	0.00023	0.0007	0.025	0.02
Relative Percent Difference			2.0	1.3	0.0	0.0	0.0	60.9	2.1	0.0	45.7	0.0	2.4	0.8	3.5	15.4	2.72	5.4	0.0	2.6	1.4	0.0	-
SW-01	2022-07-13	CA15242-JUL22	0.0055	0.00807	0.000021	0.000005	0.004	0.000006	6.51		0.00116	0.000237	0.0008	0.642	0.00024	0.0011	1.73	0.0217	0.000005	0.00011	0.0009	0.013	
SW-01	2022-07-13	CA15242-JUL22	0.0063	0.00841	0.000013	0.000005	0.004	0.00003	6.58	-	0.00093	0.000326	0.0008	0.644	0.00027	0.0011	1.77	0.022	0.00001	0.00011	0.0012	0.036	-
Duplicates Averaged			0.0059	0.0082	0.00	0.000005	0.004	0.000018	6.5	-	0.0010	0.000282	0.0008	0.64	0.000255	0.0011	1.75	0.02185	0.00	0.00011	0.0011	0.025	-
Relative Percent Difference			14.5	4.2	38.1	0.0	0.0	400.0	1.1	-	19.8	37.6	0.0	0.3	12.5	0.0	2.31	1.4	100.0	0.0	33.3	176.9	-
SW-01	2023-05-14	WP2308112	0.00355	0.00554	0.00001	0.000025	0.005	2.5E-06	5.33	0.000005	0.00061	0.00015	0.00079	0.364	0.000128	0.0011	1.39	0.00843	0.0000025	0.00009	0.00063	0.025	0.015
SW-01	2023-05-14	WP2308112	0.00354	0.00546	0.00001	0.00001	0.009	0.000018	5.29	0.000005	0.00061	0.00015	0.00077	0.386	0.000136	0.0012	1.37	0.00859	0.0000025	0.000102	0.00069	0.015	-
Duplicates Averaged			0.0035	0.0055	0.00	0.000018	0.007	0.000010	5.3	0.00	0.0006	0.000150	0.0008	0.38	0.000132	0.0012	1.38	0.00851	0.00	0.00010	0.0007	0.020	0.02
Relative Percent Difference			0.3	1.4	0.0	60.0	80.0	620.0	0.8	0.0	0.0	0.0	2.5	6.0	6.3	9.1	1.44	1.9	0.0	13.3	9.5	40.0	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
SW-TR	2024-02-05	TMWATR022824CH1-005																					
SW-TR	2024-02-05	TMWATR022824CH1-004																					
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2023-06-10	WP2311799-001	0.753	0.00177	0.000077	1.23	0.000005	1.32	0.0212	0.6	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000044	0.00025	-	0.0015	0.0001	0.002	-
SW-GL	2023-06-10	WP2311799-005	0.782	0.0018	0.000076	1.34	0.000005	1.35	0.0225	0.59	0.0001	0.000005	0.00005	0.00005	0.00044	0.00005	0.000044	0.00025		0.0015	0.0001	0.0039	
Duplicates Averaged			0.77	0.00179	0.00008	1.29	0.00001	1.34	0.022	0.6	0.00010	0.00001	0.00005	0.00005	0.00030	0.00005	0.000044	0.00025	-	0.002	0.0001	0.003	-
Relative Percent Difference			3.9	1.7	1.3	8.9	0.0	2.3	6.1	1.7	0.0	0.0	0.0	0.0	193.3	0.0	0.0	0.0	-	0.0	0.0	95.0	-
SW-18	2023-05-21	WP2309398-006	1.18	0.0011	0.000136	1.52	0.000005	45.5	0.0395	0.76	0.0001	0.000005	0.00005	0.00005	0.00183	0.00005	0.000081	0.00025		0.0036	0.0004	0.146	
SW-18	2023-05-21	WP2309398-002	1.2	0.0012	0.000136	1.59	0.000005	45.4	0.0399	0.81	0.0001	0.000005	0.00005	0.00005	0.00173	0.00005	0.000068	0.00025	-	0.0039	0.00047	0.13	-
Duplicates Averaged			1.19	0.00	0.00	1.56	0.00	45.45	0.040	0.8	0.00010	0.00001	0.00005	0.00005	0.00178	0.00005	0.000075	0.00025	-	0.004	0.0004	0.138	-
Relative Percent Difference			1.7	9.1	0.0	4.6	0.0	0.2	1.0	6.6	0.0	0.0	0.0	0.0	5.5	0.0	16.0	0.0	-	8.3	17.5	11.0	-
SW-14	2023-02-08	CA15284-FEB23	2.3		0.00017	1.3	0.000025	4.63	0.0444	0.5		0.0000025		0.00008	0.00161	0.00001	0.000077	0.0004	0.00015	0.022	0.001	0.035	0.039
SW-14	2023-02-08	CA15284-FEB23	2.27	-	0.00018	1.33	0.000025	4.68	0.044	0.5	-	0.0000025	-	0.00003	0.00367	0.00001	0.000089	0.00043	0.00015	0.034	0.001	0.037	0.033
Duplicates Averaged			2.29	-	0.00	1.32	0.00	4.66	0.044	0.5	-	0.00000	-	0.00006	0.00264	0.00001	0.000083	0.00042	0.00	0.028	0.0010	0.036	0.036
Relative Percent Difference			1.3	-	5.9	2.3	0.0	1.1	0.9	0.0	-	0.0	-	62.5	128.0	0.0	15.6	7.5	0.0	54.5	0.0	5.7	15.4
SW-10	2022-11-09	CA15304-NOV22	1.97		0.00096	3.82	0.000025	2.8	0.04679	0.5		0.000005		0.00003	0.00226	0.00015	0.00028	0.00041	0.00015	0.001	0.001		0.042
SW-10	2022-11-09	CA15304-NOV22	1.92	-	0.00002	5.06	0.000025	2.89	0.0482	7	-	0.00003	-	0.0002	0.00743	0.00007	0.00039	0.00049	-	0.004	0.001	0.039	-
Duplicates Averaged			1.95	-	0.00	4.44	0.00	2.85	0.047	3.8	-	0.00002	-	0.00012	0.00485	0.00011	0.000335	0.00045	0.00	0.003	0.0010	0.039	0.042
Relative Percent Difference			2.5	-	97.9	32.5	0.0	3.2	3.0	1300.0	-	500.0	-	566.7	228.8	53.3	39.3	19.5	-	300.0	0.0	-	-
SW-10	2023-08-12	WP2319515	1.16	0.00173	0.000159	3.96	0.000005	2.91	0.0493	1.22	0.0001	0.000005	0.00005	0.00026	0.00979	0.00005	0.0002	0.00112		0.0015	0.00049	0.0615	
SW-10	2023-08-12	WP2319515	1.37	0.00167	0.000151	4.26	0.000005	3.06	0.0491	0.75	0.0001	0.000005	0.00005	0.00005	0.00858	0.00014	0.000205	0.00128	-	0.0015	0.00046	0.0664	-
Duplicates Averaged			1.27	0.00	0.00	4.11	0.00	2.99	0.049	1.0	0.000100	0.000005	0.000050	0.00016	0.00919	0.00010	0.000203	0.00120	-	0.002	0.0005	0.064	-
Relative Percent Difference			18.1	3.5	5.0	7.6	0.0	5.2	0.4	38.5	0.0	0.0	0.0	80.8	12.4	180.0	2.5	14.3	-	0.0	6.1	8.0	-
SW-11	2023-11-05	WP2328799	2.4	0.00406	0.000183	8.39	0.00001	10.2	0.0828	3.65	0.0001	0.000015	0.00035	0.00005	0.04	0.00011	0.000253	0.0046		0.0064	0.00145	0.163	
SW-11	2023-11-05	WP2328799	2.48	0.00518	0.000189	9.33	0.00001	10.1	0.084	3.48	0.0001	0.000024	0.00055	0.00005	0.0732	0.00005	0.000351	0.00845	-	0.0097	0.00186	0.17	-
Duplicates Averaged			2.44	0.00	0.00	8.86	0.00	10.15	0.083	3.6	0.000100	0.000020	0.000450	0.00005	0.05660	0.00008	0.000302	0.00653	-	0.008	0.0017	0.167	-
Relative Percent Difference			3.3	27.6	3.3	11.2	0.0	1.0	1.4	4.7	0.0	60.0	57.1	0.0	83.0	54.5	38.7	83.7	-	51.6	28.3	4.3	-
SW-08	2022-10-12	CA15286-OCT22	1.02		0.00017	1.88	0.000025	1.32	0.0279	1		0.00001		0.00007	0.0216	0.00007	0.000361	0.00149	0.00035	0.001	0.001		0.036
SW-08	2022-10-12	CA15286-OCT22	1.02	-	0.0001	1.83	0.000025	1.37	0.0282	1	-	0.00001	-	0.00003	0.0206	0.00007	0.000363	0.00145	-	0.001	0.001	0.06	-
Duplicates Averaged			1.02	-	0.00	1.86	0.00	1.35	0.028	1.0	-	0.000010	-	0.00005	0.02110	0.00007	0.000362	0.00147	0.0004	0.001	0.0010	0.060	0.036
Relative Percent Difference			0.0	-	41.2	2.7	0.0	3.8	1.1	0.0	-	0.0	-	57.1	4.6	0.0	0.6	2.7	-	0.0	0.0	-	-
SW-08	2023-08-05	WP2318603-006	1.4	0.00267	0.000117	3.87	0.00001	2.57	0.0462	0.56	0.0001	0.000005	0.00005	0.00005	0.0104	0.0005	0.00029	0.00124		0.0015	0.00043	0.114	
SW-08	2023-08-05	WP2318603	1.41	0.00286	0.000146	3.78	0.000011	2.57	0.0474	0.25	0.0001	0.000005	0.0001	0.00005	0.00999	0.00048	0.000286	0.00122	-	0.0015	0.00044	0.122	-
Duplicates Averaged			1.41	0.00	0.00	3.83	0.00	2.57	0.047	0.4	0.000100	0.000005	0.000075	0.00005	0.01020	0.00049	0.000288	0.00123	-	0.002	0.0004	0.118	-
Relative Percent Difference			0.7	7.1	24.8	2.3	10.0	0.0	2.6	55.4	0.0	0.0	100.0	0.0	3.9	4.0	1.4	1.6	-	0.0	2.3	7.0	-
SW-08	2023-12-07	WP2332136	1.29	0.0023	0.00012	3.22	0.000014	1.88	0.0309	0.25	0.0001	0.000005	0.00005	0.00005	0.00801	0.00005	0.000174	0.00097		0.0015	0.0001	0.0238	
SW-08	2023-12-07	WP2332136	1.31	0.00228	0.000101	3.3	0.000012	1.99	0.0309	0.51	0.0001	0.000005	0.00005	0.00005	0.0072	0.00005	0.000186	0.001	-	0.0015	0.0001	0.0334	-
Duplicates Averaged			1.30	0.00	0.00	3.26	0.00	1.94	0.031	0.4	0.000100	0.000005	0.000050	0.00005	0.00761	0.00005	0.000180	0.00099	-	0.002	0.0001	0.029	-
Relative Percent Difference			1.6	0.9	15.8	2.5	14.3	5.9	0.0	104.0	0.0	0.0	0.0	0.0	10.1	0.0	6.9	3.1	-	0.0	0.0	40.3	-
SW-01	2022-07-13	CA15242-JUL22	0.14		0.00026	0.75	0.000025	0.95	0.0188	0.5		0.0000025		0.00008		0.00001	0.000089	0.00095	0.00066	0.001	0.001		0.353
SW-01	2022-07-13	CA15242-JUL22	0.133	-	0.00009	0.8	0.000025	0.98	0.021	0.5	-	0.000005	-	0.00003	-	0.00001	0.000087	0.00094	-	0.002	0.001	-	0.354
Duplicates Averaged			0.14	-	0.00	0.78	0.00	0.97	0.020	0.5	-	0.000004	-	0.00006	-	0.00001	0.000088	0.00095	0	0.002	0.0010	-	0.354
Relative Percent Difference			5.0	-	65.4	6.7	0.0	3.2	11.7	0.0	-	100.0	-	62.5	-	0.0	2.2	1.1	-	100.0	0.0	-	0.3
SW-01	2023-05-14	WP2308112	0.254	0.00085	0.000086	2.16	0.000005	1.1	0.0143	0.25	0.0001	0.000005	0.00005	0.00005	0.00389	0.00005	0.000054	0.00104		0.0015	0.00033	0.256	
SW-01	2023-05-14	WP2308112	0.028	0.00083	0.000086	2.16	0.000005	1.15	0.0141	0.25	0.0001	0.000005	0.0001	0.00005	0.00461	0.00005	0.000058	0.00105	-	0.0015	0.00034	0.256	-
Duplicates Averaged			0.14	0.00	0.00	2.16	0.00	1.13	0.014	0.3	0.00010	0.000005	0.000075	0.00005	0.00425	0.00005	0.000056	0.00105	-	0.002	0.0003	0.256	-
Relative Percent Difference			89.0	2.4	0.0	0.0	0.0	4.5	1.4	0.0	0.0	0.0	100.0	0.0	18.5	0.0	7.4	1.0	-	0.0	3.0	0.3	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
SW-TR	2024-02-05	TMWATR022824CH1-005																					
SW-TR	2024-02-05	TMWATR022824CH1-004																					
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL	2023-06-10	WP2311799-001	0.00005	0.00138	0.00544	0.00001	0.000025	0.005	0.0000025	9.36	0.000005	0.00005	0.00005	0.00081	0.033	0.000025	0.0016	2.01	0.00094	2.5E-06	0.000118	0.00025	0.015
SW-GL	2023-06-10	WP2311799-005	0.00005	0.00156	0.00647	0.00001	0.000025	0.005	0.0000025	8.93	0.000005	0.00005	0.00005	0.0001	0.038	0.000025	0.0005	2.24	0.00127	2.5E-06	0.000144	0.00025	0.015
Duplicates Averaged			0.00005	0.0015	0.01	0.00	0.00003	0.005	0.00	9.1	0.00	0.00005	0.000050	0.0005	0.036	0.000025	0.0011	2.13	0.00111	0.000003	0.0001	0.0003	0.015
Relative Percent Difference			0.0	13.0	18.9	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	87.7	15.2	0.0	68.8	11.4	35.1	0.0	22.0	0.0	0.0
SW-18	2023-05-21	WP2309398-006	0.00005	0.00214	0.0158	0.00001	0.000025	0.005	0.0000056	15	0.000005	0.00041	0.00022	0.00061	0.309	0.000025	0.0018	5.1	0.0632	2.5E-06	0.000309	0.0013	0.015
SW-18	2023-05-21	WP2309398-002	0.00005	0.00227	0.0152	0.00001	0.000025	0.005	0.0000025	14.7	0.000005	0.00005	0.00024	0.00072	0.324	0.000025	0.0017	5.12	0.06	2.5E-06	0.000276	0.00133	0.015
Duplicates Averaged			0.00005	0.0022	0.02	0.00	0.00003	0.005	0.00	14.9	0.00	0.00023	0.000230	0.0007	0.317	0.000025	0.0018	5.11	0.06160	0.000003	0.0003	0.0013	0.015
Relative Percent Difference			0.0	6.1	3.8	0.0	0.0	0.0	55.4	2.0	0.0	87.8	9.1	18.0	4.9	0.0	5.6	0.4	5.1	0.0	10.7	2.3	0.0
SW-14	2023-02-08	CA15284-FEB23	0.00045	0.0046	0.0165	0.000008	0.000005	0.007	0.000014	17		0.00033	0.000079	0.0008	0.705	0.00009		4.72	0.119	0.000005	0.00025	0.0005	0.023
SW-14	2023-02-08	CA15284-FEB23	0.000375	0.00485	0.0174	0.000008	0.000005	0.007	0.000004	16.7	-	0.00039	0.000084	0.0007	0.712	0.00014	-	4.95	0.119	0.000005	0.0003	0.0005	0.024
Duplicates Averaged			0.00041	0.0047	0.02	0.00	0.00001	0.007	0.00	16.9	-	0.00036	0.000082	0.0008	0.709	0.000115	-	4.84	0.11900	0.000005	0.0003	0.0005	0.024
Relative Percent Difference			16.7	5.4	5.5	0.0	0.0	0.0	71.4	1.8	-	18.2	6.3	12.5	1.0	55.6	-	4.9	0.0	0.0	20.0	0.0	4.3
SW-10	2022-11-09	CA15304-NOV22	0.00045	0.0025	0.015	0.000113	0.00001	0.006	0.000009	22.3		0.0209	0.000096	0.0007	0.261	0.00009		6.72	0.02086	0.000005	0.00074	0.0009	0.057
SW-10	2022-11-09	CA15304-NOV22	0.00045	0.002	0.0134	0.00004	0.00003	0.007	0.00003	22.7	-	0.00004	0.000002	0.0003	0.27	0.00011	-	6.7	0.0191	-	0.00058	0.0007	0.03
Duplicates Averaged			0.00045	0.0023	0.01	0.00	0.00002	0.007	0.00	22.5	-	0.01047	0.000049	0.0005	0.266	0.000100	-	6.71	0.01998	0.000005	0.0007	0.0008	0.044
Relative Percent Difference			0.0	20.0	10.7	64.6	200.0	16.7	233.3	1.8	-	99.8	97.9	57.1	3.4	22.2	-	0.3	8.4	-	21.6	22.2	47.4
SW-10	2023-08-12	WP2319515	0.00005	0.00299	0.015	0.00001	0.000025	0.005	0.0000025	23.2	0.000005	0.00035	0.00012	0.00084	0.285	0.000073	0.0041	7.82	0.0685	2.5E-06	0.000628	0.00086	0.015
SW-10	2023-08-12	WP2319515	0.00005	0.00301	0.0151	0.00001	0.000025	0.005	0.0000025	24.1	0.000005	0.00005	0.00012	0.00084	0.292	0.000075	0.0043	7.85	0.071	2.5E-06	0.0006	0.00084	0.025
Duplicates Averaged			0.00005	0.0030	0.02	0.00	0.00003	0.005	0.00	23.7	0.00	0.00020	0.000120	0.0008	0.289	0.000074	0.0042	7.84	0.06975	0.000003	0.0006	0.0009	0.020
Relative Percent Difference			0.0	0.7	0.7	0.0	0.0	0.0	0.0	3.9	0.0	85.7	0.0	0.0	2.5	2.7	4.9	0.4	3.6	0.0	4.5	2.3	66.7
SW-11	2023-11-05	WP2328799	0.00012	0.00475	0.0283	0.000021	0.000025	0.005	0.0000188	33	0.000005	0.0008	0.00232	0.00105	2.37	0.000129	0.003	11.4	0.874	2.5E-06	0.000441	0.00282	0.045
SW-11	2023-11-05	WP2328799	0.00013	0.00459	0.0268	0.000026	0.000025	0.005	0.0000199	32.2	0.000005	0.00076	0.00225	0.00113	2.4	0.000139	0.0032	11.3	0.823	2.5E-06	0.000418	0.00276	0.025
Duplicates Averaged			0.00013	0.0047	0.03	0.00	0.00003	0.005	0.00	32.6	0.00	0.00078	0.002285	0.0011	2.385	0.000134	0.0031	11.35	0.84850	0.000003	0.0004	0.0028	0.035
Relative Percent Difference			8.3	3.4	5.3	23.8	0.0	0.0	5.9	2.4	0.0	5.0	3.0	7.6	1.3	7.8	6.7	0.9	5.8	0.0	5.2	2.1	44.4
SW-08	2022-10-12	CA15286-OCT22	0.00045	0.0015	0.0115	0.00002	0.000005	0.005	0.000002	10.4		0.00033	0.000035	0.001	0.299	0.00017		2.73	0.00161		0.00026	0.0006	0.011
SW-08	2022-10-12	CA15286-OCT22	0.00045	0.0015	0.0113	0.00002	0.000005	0.006	0.00001	10.4	-	0.00035	0.000043	0.001	0.347	0.00018	-	2.64	0.00213	-	0.00023	0.0006	0.014
Duplicates Averaged			0.00045	0.0015	0.01	0.00	0.00001	0.006	0.00	10.4	-	0.00034	0.000039	0.0010	0.323	0.000175	-	2.69	0.00187	-	0.0002	0.0006	0.013
Relative Percent Difference			0.0	0.0	1.7	0.0	0.0	20.0	400.0	0.0	-	6.1	22.9	0.0	16.1	5.9	-	3.3	32.3	-	11.5	0.0	27.3
SW-08	2023-08-05	WP2318603-006	0.00005	0.00308	0.0375	0.00001	0.000025	0.005	0.0000059	25.2	0.000005	0.00036	0.00018	0.00123	0.479	0.00012	0.0028	6.22	0.122	2.5E-06	0.000363	0.0011	0.015
SW-08	2023-08-05	WP2318603	0.00005	0.00318	0.0365	0.00001	0.000025	0.005	0.0000075	25.9	0.000005	0.00005	0.00017	0.00148	0.476	0.000212	0.0029	6.01	0.114	2.5E-06	0.000377	0.00113	0.025
Duplicates Averaged			0.00005	0.0031	0.04	0.00	0.00003	0.005	0.00	25.6	0.00	0.00021	0.000175	0.0014	0.478	0.000166	0.0029	6.12	0.11800	0.000003	0.0004	0.0011	0.020
Relative Percent Difference			0.0	3.2	2.7	0.0	0.0	0.0	27.1	2.8	0.0	86.1	5.6	20.3	0.6	76.7	3.6	3.4	6.6	0.0	3.9	2.7	66.7
SW-08	2023-12-07	WP2332136	0.00005	0.0014	0.0129	0.00001	0.000025	0.005	0.0000025	14	0.000005	0.00018	0.00005	0.00068	0.161	0.000025	0.0017	4.1	0.0161	2.5E-06	0.000241	0.00025	0.015
SW-08	2023-12-07	WP2332136	0.00005	0.00143	0.0133	0.00001	0.000025	0.005	0.0000025	14	0.000005	0.00005	0.00005	0.00068	0.184	0.000058	0.0017	4.36	0.0172	2.5E-06	0.000229	0.00054	0.025
Duplicates Averaged			0.00005	0.0014	0.01	0.00	0.00003	0.005	0.00	14.0	0.00	0.00012	0.000050	0.0007	0.173	0.000042	0.0017	4.23	0.01665	0.000003	0.0002	0.0004	0.020
Relative Percent Difference			0.0	2.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	72.2	0.0	0.0	14.3	132.0	0.0	6.3	6.8	0.0	5.0	116.0	66.7
SW-01	2022-07-13	CA15242-JUL22	0.00045	0.0062	0.00802	0.000024	0.000005	0.004	0.000018	6.91		0.00128	0.000242	0.0007	0.642	0.00024	0.0011	1.73	0.0223	0.000005	0.00002	0.0012	0.013
SW-01	2022-07-13	CA15242-JUL22	0.00045	0.0059	0.0079	0.000026	0.000005	0.004	0.000006	6.82	-	0.00049	0.00025	0.0008	0.617	0.00025	0.0011	1.8	0.0229	0.00001	0.00009	0.0012	0.006
Duplicates Averaged			0.00045	0.0061	0.01	0.00	0.00001	0.004	0.00	6.9	-	0.00089	0.000246	0.0008	0.630	0.000245	0.0011	1.77	0.02260	0.000008	0.0001	0.0012	0.010
Relative Percent Difference			0.0	4.8	1.5	8.3	0.0	0.0	66.7	1.3	-	61.7	3.3	14.3	3.9	4.2	0.0	4.0	2.7	100.0	350.0	0.0	53.8
SW-01	2023-05-14	WP2308112	0.00013	0.00352	0.0054	0.00001	0.000025	0.005	0.0000071	5.3	0.000005	0.00057	0.00014	0.00076	0.264	0.000119	0.0005	1.42	0.00745	2.5E-06	0.000089	0.00061	0.025
SW-01	2023-05-14	WP2308112	0.00012	0.00352	0.00526	0.00001	0.000025	0.005	0.0000079	5.16	0.000005	0.00058	0.00014	0.00078	0.273	0.000116	0.0005	1.45	0.00746	2.5E-06	0.000083	0.00063	0.015
Duplicates Averaged			0.00013	0.0035	0.01	0.00	0.00003	0.005	0.00	5.2	0.00	0.00058	0.000140	0.0008	0.269	0.000118	0.0005	1.44	0.00746	0.000003	0.0001	0.0006	0.020
Relative Percent Difference			7.7	0.0	2.6	0.0	0.0	0.0	11.3	2.6	0.0	1.8	0.0	2.6	3.4	2.5	0.0	2.1	0.1	0.0	6.7	3.3	40.0

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
SW-TR	2024-02-05	TMWATR022824CH1-005																						5.05
SW-TR	2024-02-05	TMWATR022824CH1-004																						5.03
Duplicates Averaged			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.0
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4
SW-GL	2023-06-10	WP2311799-001	-	0.728	0.00163	0.000025	1.04	0.000005	1.39	0.0218	0.25	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000032	0.00025	-	0.0005	0.00015		
SW-GL	2023-06-10	WP2311799-005		0.708	0.00176	0.000116	1.16	0.000005	1.17	0.0227	0.25	0.00029	0.000005	0.00005	0.00005	0.00015	0.00005	0.000042	0.00025		0.0005	0.00015		
Duplicates Averaged			-	0.72	0.00	0.00007	1.10	0.000005	1.28	0.0223	0.3	0.00	0.0000050	0.0001	0.00005	0.00015	0.00005	0.0000	0.00025	-	0.001	0.000	-	-
Relative Percent Difference			-	2.7	8.0	364.0	11.5	0.0	15.8	4.1	0.0	190.0	0.0	0.0	0.0	0.0	0.0	31.3	0.0	-	0.0	0.0	-	-
SW-18	2023-05-21	WP2309398-006		1.12	0.00121	0.000132	1.51	0.000005	43.4	0.0413	0.68	0.0001	0.000005	0.00005	0.00005	0.00175	0.00005	0.000063	0.00025		0.0035	0.00049		
SW-18	2023-05-21	WP2309398-002	-	1.18	0.00109	0.000129	1.51	0.000005	43.2	0.0398	0.81	0.0001	0.000005	0.00005	0.00005	0.00191	0.00005	0.000077	0.00025	-	0.0036	0.00048		
Duplicates Averaged			-	1.15	0.00	0.00013	1.51	0.000005	43.30	0.0406	0.7	0.00	0.0000050	0.0001	0.00005	0.00183	0.00005	0.0001	0.00025	-	0.004	0.000	-	-
Relative Percent Difference			-	5.4	9.9	2.3	0.0	0.0	0.5	3.6	19.1	0.0	0.0	0.0	0.0	9.1	0.0	22.2	0.0	-	2.9	2.0	-	-
SW-14	2023-02-08	CA15284-FEB23		2.17		0.00013	1.23	0.000025	4.44	0.042	0.5		0.0000025		0.00003	0.00103	0.00001	0.00007	0.00037	0.00014	0.018	0.001		
SW-14	2023-02-08	CA15284-FEB23	-	2.13	-	0.00014	1.25	0.000025	4.66	0.0421	0.5	-	0.0000025	-	0.00003	0.00117	0.00001	0.000095	0.00032	0.00014	0.052	0.001		
Duplicates Averaged			-	2.15	-	0.00014	1.24	0.000025	4.55	0.0421	0.5	-	0.0000025	-	0.00003	0.00110	0.00001	0.0001	0.00035	0.00	0.035	0.001	-	-
Relative Percent Difference			-	1.8	-	7.7	1.6	0.0	5.0	0.2	0.0	-	0.0	-	0.0	13.6	0.0	35.7	13.5	0.0	188.9	0.0	-	-
SW-10	2022-11-09	CA15304-NOV22		1.85		0.00414	3.74	0.00005	2.51	0.0442	1		0.00001		0.00003	0.00552	0.00038	0.000294	0.00055	0.00019	0.001	0.001		
SW-10	2022-11-09	CA15304-NOV22	-	1.7	-	0.00049	4.29	0.000025	2.61	0.0439	5	-	0.0000025	-	0.00009	0.0012	0.00006	0.00031	0.00037	-	0.004	0.001		
Duplicates Averaged			-	1.78	-	0.00232	4.02	0.000038	2.56	0.0441	3.0	-	0.0000063	-	0.00006	0.00336	0.00022	0.0003	0.00046	0.00	0.003	0.001	-	-
Relative Percent Difference			-	8.1	-	88.2	14.7	50.0	4.0	0.7	400.0	-	75.0	-	200.0	78.3	84.2	5.4	32.7	-	300.0	0.0	-	-
SW-10	2023-08-12	WP2319515		1.12	0.00132	0.000118	3.4	0.000005	3	0.05	0.53	0.0001	0.000005	0.00005	0.00005	0.00289	0.00005	0.000197	0.00065		0.0005	0.00053		
SW-10	2023-08-12	WP2319515	-	1.14	0.00138	0.000112	3.46	0.000005	2.96	0.0473	0.58	0.0001	0.000005	0.00005	0.00005	0.00325	0.00005	0.000198	0.00072	-	0.0005	0.00048		
Duplicates Averaged			-	1.13	0.00	0.00012	3.43	0.000005	2.98	0.0487	0.6	0.00	0.0000050	0.0001	0.00005	0.00307	0.00005	0.0002	0.00069	-	0.001	0.001	-	-
Relative Percent Difference			-	1.8	4.5	5.1	1.8	0.0	1.3	5.4	9.4	0.0	0.0	0.0	0.0	12.5	0.0	0.5	10.8	-	0.0	9.4	-	-
SW-11	2023-11-05	WP2328799		2.1	0.00223	0.000171	6.8	0.000005	10.1	0.0792	3.8	0.0001	0.000005	0.00017	0.00005	0.00648	0.00014	0.00017	0.00137		0.002	0.00106		
SW-11	2023-11-05	WP2328799	-	2.08	0.00227	0.000145	6.75	0.000005	10.2	0.08	3.7	0.0001	0.000005	0.00017	0.00005	0.00653	0.00014	0.000174	0.00141	-	0.0018	0.00106		
Duplicates Averaged			-	2.09	0.00	0.00016	6.78	0.000005	10.15	0.0796	3.8	0.00	0.0000050	0.0002	0.00005	0.00651	0.00014	0.0002	0.00139	-	0.002	0.001	-	-
Relative Percent Difference			-	1.0	1.8	15.2	0.7	0.0	1.0	1.0	2.6	0.0	0.0	0.0	0.0	0.8	0.0	2.4	2.9	-	10.0	0.0	-	-
SW-08	2022-10-12	CA15286-OCT22		0.893		0.00008	0.86	0.000025	1.31	0.0266	1		0.0000025		0.00003	0.00228	0.00006	0.000344	0.00057	0.00021	0.001	0.001		
SW-08	2022-10-12	CA15286-OCT22	-	0.895	-	0.00008	0.91	0.000025	1.29	0.0259	1	-	0.0000025	-	0.00003	0.0027	0.00006	0.000348	0.00062	-	0.001	0.001		
Duplicates Averaged			-	0.89	-	0.00008	0.89	0.000025	1.30	0.0263	1.0	-	0.0000025	-	0.00003	0.00249	0.00006	0.0003	0.00060	0.00	0.001	0.001	-	-
Relative Percent Difference			-	0.2	-	0.0	5.8	0.0	1.5	2.6	0.0	-	0.0	-	0.0	18.4	0.0	1.2	8.8	-	0.0	0.0	-	-
SW-08	2023-08-05	WP2318603-006		1.45	0.00239	0.000111	3.64	0.000005	2.74	0.0496	0.25	0.0001	0.000005	0.00005	0.00005	0.00441	0.00053	0.000304	0.00099		0.0005	0.00047		
SW-08	2023-08-05	WP2318603	-	1.47	0.00235	0.000126	3.65	0.000005	2.63	0.0482	0.25	0.0001	0.000005	0.00005	0.00005	0.00429	0.00052	0.000301	0.00099	-	0.0017	0.00048		
Duplicates Averaged			-	1.46	0.00	0.00012	3.65	0.000005	2.69	0.0489	0.3	0.00	0.0000050	0.0001	0.00005	0.00435	0.00053	0.0003	0.00099	-	0.001	0.000	-	-
Relative Percent Difference			-	1.4	1.7	13.5	0.3	0.0	4.0	2.8	0.0	0.0	0.0	0.0	0.0	2.7	1.9	1.0	0.0	-	240.0	2.1	-	-
SW-08	2023-12-07	WP2332136		1.27	0.00194	0.0001	2.81	0.000005	1.94	0.0312	0.25	0.0001	0.000005	0.00005	0.00005	0.00079	0.00005	0.00015	0.00025		0.0005	0.00015		
SW-08	2023-12-07	WP2332136	-	1.28	0.00201	0.000125	2.93	0.000005	2.01	0.0312	0.25	0.0001	0.000005	0.00005	0.00005	0.00106	0.00005	0.000153	0.00025	-	0.0005	0.00015		
Duplicates Averaged			-	1.28	0.00	0.00011	2.87	0.000005	1.98	0.0312	0.3	0.00	0.0000050	0.0001	0.00005	0.00093	0.00005	0.0002	0.00025	-	0.001	0.000	-	-
Relative Percent Difference			-	0.8	3.6	25.0	4.3	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	34.2	0.0	2.0	0.0	-	0.0	0.0	-	-
SW-01	2022-07-13	CA15242-JUL22		0.121		0.00014	0.84	0.000025	0.95	0.0185			0.000006		0.00003		0.00002	0.000077	0.00088	0.00059	0.002	0.001		
SW-01	2022-07-13	CA15242-JUL22	-	0.121	-	0.00017	0.74	0.000025	0.98	0.018	-	-	0.00001	-	0.00003	-	0.00001	0.000084	0.00081	-	0.003	0.001		
Duplicates Averaged			-	0.12	-	0.00016	0.79	0.000025	0.97	0.0183	-	-	0.0000080	-	0.00003	-	0.00002	0.0001	0.00085	0.00	0.003	0.001	-	-
Relative Percent Difference			-	0.0	-	21.4	11.9	0.0	3.2	2.7	-	-	66.7	-	0.0	-	50.0	9.1	8.0	-	50.0	0.0	-	-
SW-01	2023-05-14	WP2308112		0.227	0.00086	0.000128	2.04	0.000005	1.09	0.0131	0.7	0.0001	0.000005	0.00011	0.00005	0.00314	0.00005	0.000054	0.00076		0.0019	0.00037		
SW-01	2023-05-14	WP2308112	-	0.235	0.00078	0.000112	2	0.000005	1.17	0.0124	0.88	0.0001	0.000005	0.0001	0.00005	0.00319	0.00005	0.000056	0.00078	-	0.0018	0.00035		
Duplicates Averaged			-	0.23	0.00	0.00012	2.02	0.000005	1.13	0.0128	0.8	0.00	0.0000050	0.0001	0.00005	0.00317	0.00005	0.0001	0.00077	-	0.002	0.000	-	-
Relative Percent Difference			-	3.5	9.3	12.5	2.0	0.0	7.3	5.3	25.7	0.0	0.0	9.1	0.0	1.6	0.0	3.7	2.6	-	5.3	5.4	-	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids	Conductivity (Lab)
SW-01	2023-07-16	WP2316171	6.29	6.58	18.1	3.2	13.6	13.6	0.5	0.5	0.5	27.8	28.4		41.7	82	3.5	46.3
SW-01	2023-07-16	WP2316171	6.29	6.58	18.1	3.6	13.5	13.5	0.5	0.5	0.5	27.3	27.8	-	42	91.2	4.2	46.2
Duplicates Averaged			6.29	6.58	18.10	3.4	13.6	13.6	0.5	0.5	0.5	27.6	28.1	-	41.9	86.6	3.9	46.3
Relative Percent Difference			0.0	0.0	0.0	12.5	0.7	0.7	0.0	0.0	0.0	1.8	2.1	-	0.7	11.2	20.0	0.2
SW-01	2023-09-04	WP2322079-006	5.52	6.66	16.2	3.4	15.8	15.8	0.5	0.5	0.5	28.5	25.7		40.7	82.9	1.2	47.7
SW-01	2023-09-04	WP2322079	5.52	6.7	16.2	4.8	15.8	15.8	0.5	0.5	0.5	25.8	28.4	-	36.8	72.7	0.5	47.8
Duplicates Averaged			5.52	6.68	16.20	4.1	15.8	15.8	0.5	0.5	0.5	27.2	27.1	-	38.8	77.8	0.9	47.8
Relative Percent Difference			0.0	0.6	0.0	41.2	0.0	0.0	0.0	0.0	0.0	9.5	10.5	-	9.6	12.3	58.3	0.2
SW-01	2023-10-11	WP2326289-005	7.27	6.45	8.6	8.0	8.9	8.9	0.5	0.5	0.5	20.4	20.0		41.7	76.8	1.8	35.7
SW-01	2023-10-11	WP2326289	6.27	6.49	8.6	8.1	9.7	9.7	0.5	0.5	0.5	19.1	20.0	-	40.3	75.2	2.4	35.4
Duplicates Averaged			6.77	6.47	8.60	8.1	9.3	9.3	0.5	0.5	0.5	19.8	20.0	-	41.0	76.0	2.1	35.6
Relative Percent Difference			13.8	0.6	0.0	1.3	9.0	9.0	0.0	0.0	0.0	6.4	0.0	-	3.4	2.1	33.3	0.8

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Field)	Cl-	F	SO_4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
SW-01	2023-07-16	WP2316171		0.05		0.15		0.0005	0.016	0.0005	0.0025	0.00255	0.0262				0.0017	0.0021	0.219	0.00015
SW-01	2023-07-16	WP2316171	-	0.05	-	0.15	0.024	0.0005	-	0.0005	0.0025	0.0025	0.0364	-	-	0.0016	0.0016	0.002	0.215	0.00018
Duplicates Averaged			-	0.1	-	0.2	0.02	0.00	0.02	0.001	0.0025	0.0025	0.03	-	-	-	0.00	0.00	0.217	0.00017
Relative Percent Difference			-	0.0	-	0.0	-	0.0	-	0.0	0.0	2.0	38.9	-	-	-	5.9	4.8	1.8	20.0
SW-01	2023-09-04	WP2322079-006		0.05		0.15	0.005	0.0005		0.0005	0.0025	0.00255	0.0233				0.0005	0.0011	0.139	0.00014
SW-01	2023-09-04	WP2322079	-	0.05	-	0.15	0.014	0.0005	-	0.0005	0.0025	0.0025	0.0324	-	-	0.0005	0.0005	0.0005	0.135	0.00011
Duplicates Averaged			-	0.1	-	0.2	0.01	0.00	-	0.001	0.0025	0.0025	0.03	-	-	-	0.00	0.00	0.137	0.00013
Relative Percent Difference			-	0.0	-	0.0	180.0	0.0	-	0.0	0.0	2.0	39.1	-	-	-	0.0	54.5	2.9	21.4
SW-01	2023-10-11	WP2326289-005		0.15		0.35	0.0145	0.0005		0.0005	0.0025	0.00255	0.0253				0.0005	0.0005	0.355	0.00016
SW-01	2023-10-11	WP2326289	-	0.14	-	0.33	0.0134	0.0005	-	0.0005	0.0025	0.0025	0.0314	-	-	0.0012	0.0011	0.0011	0.342	0.00017
Duplicates Averaged			-	0.1	-	0.3	0.01	0.00	-	0.001	0.003	0.003	0.03	-	-	0.00	0.00	0.00	0.349	0.00017
Relative Percent Difference			-	6.7	-	5.7	7.6	0.0	-	0.0	0.0	2.0	24.1	-	-	-	120.0	120.0	3.7	6.3

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP	P-T (ICPMS-LL)
SW-01	2023-07-16	WP2316171	0.0046	0.00521	0.000021	0.000025	0.005	2.5E-06	7.6	0.000005	0.00063	0.00013	0.00068	0.531	0.000088	0.002	2.14	0.0103	0.0000025	0.000072	0.00087	0.025	0.015
SW-01	2023-07-16	WP2316171	0.00451	0.00575	0.00001	0.000025	0.005	5.5E-06	7.4	0.000005	0.0007	0.00016	0.00066	0.573	0.000099	0.002	2.14	0.0136	0.0000025	0.00008	0.00085	0.025	-
Duplicates Averaged			0.0046	0.0055	0.00	0.000025	0.005	0.000004	7.5	0.00	0.0007	0.000145	0.0007	0.55	0.000094	0.0020	2.14	0.01195	0.00	0.00008	0.0009	0.025	0.02
Relative Percent Difference			2.0	10.4	52.4	0.0	0.0	120.0	2.6	0.0	11.1	23.1	2.9	7.9	12.5	0.0	0.00	32.0	0.0	11.1	2.3	0.0	-
SW-01	2023-09-04	WP2322079-006	0.00454	0.00576	0.00001	0.000025	0.005	0.000006	7.61	0.000005	0.00053	0.00029	0.00025	0.607	0.000077	0.0014	2.31	0.03	0.0000025	0.000059	0.00068	0.015	
SW-01	2023-09-04	WP2322079	0.00422	0.00515	0.00001	0.000025	0.005	6.1E-06	6.64	0.000005	0.00025	0.00027	0.00025	0.544	0.000085	0.0015	2.24	0.028	0.0000025	0.000052	0.00065	0.025	-
Duplicates Averaged			0.0044	0.0055	0.00	0.000025	0.005	0.000006	7.1	0.00	0.0004	0.000280	0.0003	0.58	0.000081	0.0015	2.28	0.02900	0.00	0.00006	0.0007	0.020	-
Relative Percent Difference			7.0	10.6	0.0	0.0	0.0	1.7	12.7	0.0	52.8	6.9	0.0	10.4	10.4	7.1	3.03	6.7	0.0	11.9	4.4	66.7	-
SW-01	2023-10-11	WP2326289-005	0.0049	0.00576	0.00001	0.000025	0.005	9.7E-06	5.18	0.000005	0.00062	0.00016	0.00058	0.512	0.00018	0.0011	1.82	0.012	0.0000025	0.000088	0.0007	0.015	
SW-01	2023-10-11	WP2326289	0.00484	0.00622	0.00001	0.000025	0.005	7.6E-06	4.95	0.000005	0.00064	0.00017	0.00065	0.556	0.00018	0.0005	1.63	0.0138	0.0000025	0.000085	0.00075	0.025	-
Duplicates Averaged			0.0049	0.0060	0.00	0.000025	0.005	0.000009	5.1	0.00	0.0006	0.000165	0.0006	0.53	0.000180	0.0008	1.73	0.01290	0.00	0.00009	0.0007	0.020	-
Relative Percent Difference			1.2	8.0	0.0	0.0	0.0	21.6	4.4	0.0	3.2	6.3	12.1	8.6	0.0	54.5	10.44	15.0	0.0	3.4	7.1	66.7	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T	Al-D	Al-D (<0.2µm)
SW-01	2023-07-16	WP2316171	0.076	0.00047	0.000176	0.26	0.000005	1.21	0.0236	0.25	0.0001	0.000005	0.00005	0.00005	0.0025	0.00005	0.000058	0.00025		0.0015	0.00034	0.233	
SW-01	2023-07-16	WP2316171	0.107	0.00048	0.000174	0.27	0.000005	1.2	0.0233	0.5	0.0001	0.000005	0.00005	0.00005	0.00263	0.00005	0.000059	0.00052	-	0.0015	0.0003	0.218	-
Duplicates Averaged			0.09	0.00	0.00	0.27	0.00	1.21	0.023	0.4	0.000100	0.000005	0.000050	0.00005	0.00257	0.00005	0.000059	0.00039	-	0.002	0.0003	0.226	-
Relative Percent Difference			40.8	2.1	1.1	3.8	0.0	0.8	1.3	100.0	0.0	0.0	0.0	0.0	5.2	0.0	1.7	108.0	-	0.0	11.8	6.4	-
SW-01	2023-09-04	WP2322079-006	0.539	0.00207	0.000133	0.29	0.000005	1.27	0.019	0.25	0.0001	0.000005	0.00005	0.00005	0.00239	0.00005	0.000038	0.00025		0.0015	0.0001	0.117	
SW-01	2023-09-04	WP2322079	0.464	0.0019	0.00011	0.26	0.000005	1.27	0.0232	0.25	0.0001	0.000005	0.00005	0.00005	0.00199	0.00005	0.000038	0.00025	-	0.003	0.0001	0.129	-
Duplicates Averaged			0.50	0.00	0.00	0.28	0.00	1.27	0.021	0.3	0.000100	0.000005	0.000050	0.00005	0.00219	0.00005	0.000038	0.00025	-	0.002	0.0001	0.123	-
Relative Percent Difference			13.9	8.2	17.3	10.3	0.0	0.0	22.1	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	-	100.0	0.0	10.3	-
SW-01	2023-10-11	WP2326289-005	0.568	0.0018	0.000124	1.53	0.000005	1.52	0.0161	0.25	0.0001	0.000005	0.00005	0.00005	0.00448	0.00005	0.000046	0.00076		0.0015	0.00026	0.313	
SW-01	2023-10-11	WP2326289	0.514	0.00181	0.000136	1.5	0.000005	1.27	0.0169	0.25	0.0001	0.000005	0.00005	0.00005	0.00518	0.00005	0.000044	0.00073	-	0.0015	0.00026	0.329	-
Duplicates Averaged			0.54	0.00	0.00	1.52	0.00	1.40	0.017	0.3	0.000100	0.000005	0.000050	0.00005	0.00483	0.00005	0.000045	0.00075	-	0.002	0.0003	0.321	-
Relative Percent Difference			9.5	0.6	9.7	2.0	0.0	16.4	5.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	4.3	3.9	-	0.0	0.0	5.1	-

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D-ICPMS
SW-01	2023-07-16	WP2316171	0.0001	0.00487	0.00536	0.000022	0.000025	0.005	0.000006	7.45	0.000005	0.00065	0.00019	0.00069	0.567	0.000115	0.0015	2.38	0.0141	2.5E-06	0.000061	0.0009	0.015
SW-01	2023-07-16	WP2316171	0.00011	0.00475	0.0051	0.00001	0.000025	0.005	0.0000025	7.31	0.000005	0.00065	0.00014	0.00066	0.476	0.000092	0.0013	2.31	0.0108	2.5E-06	0.000061	0.00092	0.025
Duplicates Averaged			0.00011	0.0048	0.01	0.00	0.00003	0.005	0.00	7.4	0.00	0.00065	0.000165	0.0007	0.522	0.000104	0.0014	2.35	0.01245	0.000003	0.0001	0.0009	0.020
Relative Percent Difference			10.0	2.5	4.9	54.5	0.0	0.0	58.3	1.9	0.0	0.0	26.3	4.3	16.0	20.0	13.3	2.9	23.4	0.0	0.0	2.2	66.7
SW-01	2023-09-04	WP2322079-006	0.00011	0.00442	0.00466	0.00001	0.000025	0.005	0.0000061	6.53	0.000005	0.00045	0.00026	0.00038	0.44	0.000063	0.0005	2.29	0.0263	2.5E-06	0.000025	0.00062	0.015
SW-01	2023-09-04	WP2322079	0.00005	0.00444	0.00455	0.00001	0.000025	0.005	0.0000064	7.29	0.000005	0.00005	0.00027	0.00036	0.472	0.000056	0.0016	2.47	0.0266	2.5E-06	0.000025	0.00059	0.025
Duplicates Averaged			0.00008	0.0044	0.00	0.00	0.00003	0.005	0.00	6.9	0.00	0.00025	0.000265	0.0004	0.456	0.000060	0.0011	2.38	0.02645	0.000003	0.0000	0.0006	0.020
Relative Percent Difference			54.5	0.5	2.4	0.0	0.0	0.0	4.9	11.6	0.0	88.9	3.8	5.3	7.3	11.1	220.0	7.9	1.1	0.0	0.0	4.8	66.7
SW-01	2023-10-11	WP2326289-005	0.00014	0.00482	0.00591	0.00001	0.000025	0.005	0.0000064	5.22	0.000005	0.00052	0.00014	0.00056	0.444	0.000153	0.0005	1.69	0.01	2.5E-06	0.000066	0.00066	0.015
SW-01	2023-10-11	WP2326289	0.00015	0.00484	0.00601	0.00001	0.000025	0.005	0.0000092	5.13	0.000005	0.00053	0.00015	0.00055	0.452	0.000176	0.0005	1.74	0.0104	2.5E-06	0.000073	0.00071	0.025
Duplicates Averaged			0.00015	0.0048	0.01	0.00	0.00003	0.005	0.00	5.2	0.00	0.00053	0.000145	0.0006	0.448	0.000165	0.0005	1.72	0.01020	0.000003	0.0001	0.0007	0.020
Relative Percent Difference			7.1	0.4	1.7	0.0	0.0	0.0	43.8	1.7	0.0	1.9	7.1	1.8	1.8	15.0	0.0	3.0	4.0	0.0	10.6	7.6	66.7

Table B-1 Surface Water Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Table completed.

Station I.D.	Sample Collection Date	Lab Report No.	P-D-ICPMS-LL	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Y-D	Zn-D	Zr-D	MeHg-T (ng/L)	Hg-LL-T (ng/L)
SW-01	2023-07-16	WP2316171		0.136	0.0005	0.000174	0.317	0.000005	1.22	0.0216	0.52	0.0001	0.000005	0.00011	0.00005	0.00273	0.00005	0.000065	0.00025		0.0019	0.00037		
SW-01	2023-07-16	WP2316171	-	0.076	0.0004	0.00018	0.211	0.000005	1.24	0.0221	0.56	0.0001	0.000005	0.00005	0.00005	0.0023	0.00005	0.000066	0.00025	-	0.002	0.00038		
Duplicates Averaged			-	0.11	0.00	0.00018	0.26	0.000005	1.23	0.0219	0.5	0.00	0.0000050	0.0001	0.00005	0.00252	0.00005	0.0001	0.00025	-	0.002	0.000	-	-
Relative Percent Difference			-	44.1	20.0	3.4	33.4	0.0	1.6	2.3	7.7	0.0	0.0	54.5	0.0	15.8	0.0	1.5	0.0	-	5.3	2.7	-	-
SW-01	2023-09-04	WP2322079-006		0.472	0.00183	0.000129	0.227	0.000005	1.28	0.0189	0.25	0.0001	0.000005	0.00005	0.00005	0.00121	0.00005	0.000033	0.00025		0.0019	0.00015		
SW-01	2023-09-04	WP2322079	-	0.523	0.00201	0.000112	0.175	0.000005	1.25	0.0186	0.52	0.0001	0.000005	0.00005	0.00005	0.00114	0.00005	0.000038	0.00025	-	0.0016	0.00015		
Duplicates Averaged			-	0.50	0.00	0.00012	0.20	0.000005	1.27	0.0188	0.4	0.00	0.0000050	0.0001	0.00005	0.00118	0.00005	0.0000	0.00025	-	0.002	0.000	-	-
Relative Percent Difference			-	10.8	9.8	13.2	22.9	0.0	2.3	1.6	108.0	0.0	0.0	0.0	0.0	5.8	0.0	15.2	0.0	-	15.8	0.0	-	-
SW-01	2023-10-11	WP2326289-005		0.554	0.00186	0.000122	1.4	0.000005	1.41	0.0157	0.55	0.0001	0.000005	0.00005	0.00005	0.00384	0.00005	0.000045	0.00062		0.0021	0.00032		
SW-01	2023-10-11	WP2326289	-	0.572	0.00184	0.000126	1.48	0.000005	1.45	0.0161	0.25	0.0001	0.000005	0.00005	0.00005	0.00413	0.00005	0.000047	0.00067	-	0.0022	0.00033		
Duplicates Averaged			-	0.56	0.00	0.00012	1.44	0.000005	1.43	0.0159	0.4	0.00	0.0000050	0.0001	0.00005	0.00399	0.00005	0.0000	0.00065	-	0.002	0.000	-	-
Relative Percent Difference			-	3.2	1.1	3.3	5.7	0.0	2.8	2.5	54.5	0.0	0.0	0.0	0.0	7.6	0.0	4.4	8.1	-	4.8	3.1	-	-

Notes:
All units are mg/L (unless otherwise noted)
- indicates no value available
-T denotes values are total concentrations
-D denotes values are dissolved concentrations

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids
SW-FieldBlank	2022-06-05	CA15234-JUN22	-	4.86	-	4.0	-	-	<2	-	-	<0.05	1.8	<1	<1	<30	<2
SW-TripBlank	2022-08-25	-	-	5.22	-	3.0	-	-	<2	-	-	<0.05	0.1	<1	<1	<30	<2
SW-TripBlank	2022-09-12	-	-	4.99	-	3.0	-	-	<2	-	-	<0.05	<0.05	<1	<1	<30	<2
SW-TripBlank	2022-10-11	CA15227	-	5.16	-	2.0	-	-	<2	-	-	<0.05	<0.05	<1	<1	<30	<2
SW-FieldBlank01	2022-10-19	-	-	5.47	-	2.0	-	-	<2	-	-	0.34	0.69	<1	<1	<30	<2
SW-FieldBlank02	2022-10-19	-	12.5	6.16	5.8	3.0	-	-	<2	-	-	<0.05	0.68	<1	<1	<30	<2
SW-TripBlank	2022-11-09	-	-	5.09	-	3.0	-	-	<2	-	-	0.08	0.06	<1	<1	<30	<2
SW-FieldBlank01	2022-11-09	-	-	5.11	-	5.0	-	-	<2	-	-	0.05	<0.05	<1	<1	<30	<2
SW-FieldBlank02	2022-11-10	-	-	5.9	-	3.0	-	-	2.0	-	-	0.26	0.15	<1	<1	<30	<2
SW-TravelBlank	2022-12-14	CA15297-DEC22	-	6.36	-	3.0	-	-	<2	-	-	<0.05	<0.05	<1	<1	<30	<2
SW-FieldBlank01	2022-12-14	CA15297-DEC22	-	6.67	-	<2	-	-	2.0	-	-	<0.05	<0.05	<1	<1	<30	<2
TRAVEL BLANK	2023-01-30	CA15070-FEB23	-	5.32	-	2.0	39.0	-	-	-	-	0.37	0.2	-	-	<30	<2
TRAVEL BLANK	2023-01-30	CA15070-FEB23	-	5.32	-	2.0	-	-	<2	-	-	0.37	0.2	<1	<1	<30	<2
TRAVEL BLANK	2023-02-13	CA15327-FEB23	-	5.92	5.0	<2	7.7	-	-	-	-	<0.05	<0.05	-	-	<30	<2
TRAVEL BLANK	2023-02-13	CA15327-FEB23	-	5.92	5.0	<2	-	-	5.9	-	-	<0.05	<0.05	<1	<1	<30	<2
TRIP BLANK	2023-03-21	CA15408-MAR23	-	5.1	7.0	5.0	75.0	-	-	-	-	<0.05	<0.05	-	-	<30	<2
TRIP BLANK	2023-03-21	CA15408-MAR23	-	5.1	7.0	5.0	-	-	<2	-	-	<0.05	<0.05	<1	<1	<30	<2
FIELD BLANK 01	2023-03-21	CA15408-MAR23	-	5.51	7.0	6.0	29.0	-	-	-	-	<0.05	0.36	-	-	<30	<2
FIELD BLANK 01	2023-03-21	CA15408-MAR23	-	5.51	7.0	6.0	-	-	<2	-	-	<0.05	0.36	<1	<1	<30	<2
TRAVEL BLANK	2023-05-14	WP2308112	-	5.45	-	3.6	0.5	<1	<1	<1	<1	<0.5	<0.05	-	0.8	<3	0.5
BLANK	2023-05-14	WP2308112	-	5.45	-	2.1	0.5	<1	<1	<1	<1	<0.5	<0.05	-	0.9	<3	0.5
BLANK	2023-05-29	WP2310321	-	5.43	-	2.1	0.5	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	0.5
TRAVEL BLANK	2023-06-03	WP2310873	-	5.44	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	0.5
BLANK	2023-06-05	WP2310937	-	5.44	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	0.9	<3	0.5
BLANK	2023-06-10	WP2311799	-	5.53	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	0.5
FIELD BLANK-01	2023-07-16	WP2316171	-	5.41	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	<1
TRAVEL BLANK-01	2023-07-16	WP2316171	-	5.43	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	0.8	-	-
BLANK-01	2023-08-05	WP2318603	-	5.37	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	<1
BLANK-01	2023-09-02	WP2322077	-	5.4	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	0.7	<3	<1
SW-TRAVEL-BLANK	2023-09-02	WP2322077	-	5.26	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	-	-
BLANK-02	2023-09-04	WP2322079	-	5.42	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	0.5	<3	<1
SW-TRAVEL-BLANK	2023-10-10	WP2326292	-	5.29	-	<2	0.5	<1	<1	<1	<1	<0.5	<0.05	-	0.7	<3	<1
BLANK03	2023-10-11	WP2326289	-	5.29	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	<1
BLANK-02	2023-10-12	WP2326558	-	5.27	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	<1
BLANK-02	2023-10-14	WP2326559	-	5.39	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	<1
SW-FIELDBLANK01	2023-11-04	WP2328799	-	5.27	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	0.7	<3	<1
SW-TRAVEL BLANK	2023-11-04	WP2328799	-	5.33	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	0.6	<3	<1
SW-FIELDBLANK02	2023-11-05	WP2328799	-	5.35	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	<1
TRAVEL BLANK	2023-12-07	WP2332136	-	5.3	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	0.6	<3	<1
BLANK-01	2023-12-09	WP2332240	-	5.26	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	<0.5	<3	<1
TRAVEL BLANK	2024-01-12	WP2401043	-	5.26	-	<2	<1	<1	<1	<1	<1	<0.5	<0.05	-	0.6	<3	<1
FIELD BLANK	2024-06-18	WP2415532-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-06-18	WP2415532-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Lab)	Cl-	F	SO4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	NO_3 + NO_2 (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
SW-FieldBlank	2022-06-05	CA15234-JUN22	2.0	<1.0	<0.06	<2.0	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	-	-	0.037	<0.0009
SW-TripBlank	2022-08-25	-	9.0	<1	<0.06	<2.1	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	-	-	0.019	<0.0009
SW-TripBlank	2022-09-12	-	6.0	<1	<0.06	<2.2	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	-	-	0.021	<0.0009
SW-TripBlank	2022-10-11	CA15227	2.0	<1	<0.06	<2.3	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	-	-	0.021	<0.0009
SW-FieldBlank01	2022-10-19	-	<2	<1	<0.06	<2.4	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	-	-	0.03	<0.0009
SW-FieldBlank02	2022-10-19	-	<2	<1	<0.06	<2.5	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	-	-	0.026	<0.0009
SW-TripBlank	2022-11-09	-	2.0	<1	<0.06	<2.6	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	-	-	0.02	<0.0009
SW-FieldBlank01	2022-11-09	-	2.0	<1	<0.06	<2.7	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	-	-	0.02	<0.0009
SW-FieldBlank02	2022-11-10	-	2.0	<1	<0.06	<2.8	-	-	<0.1	<0.03	0.09	0.09	-	-	<8	<0.01	-	-	0.012	<0.0009
SW-TravelBlank	2022-12-14	CA15297-DEC22	2.0	<1	<0.06	<2.9	-	-	<0.1	<0.03	<0.06	<0.06	-	-	8.0	<0.01	<0.005	<0.01	0.019	<0.0009
SW-FieldBlank01	2022-12-14	CA15297-DEC22	5.0	<1	<0.06	<2.10	-	-	<0.1	<0.03	<0.06	<0.06	-	-	9.0	<0.01	<0.005	<0.01	0.022	<0.0009
TRAVEL BLANK	2023-01-30	CA15070-FEB23	<2	<1	-	<2.11	-	-	-	<0.03	<0.06	<0.06	-	-	-	<0.01	<0.005	<0.01	0.027	<0.0009
TRAVEL BLANK	2023-01-30	CA15070-FEB23	<2	<1	<0.06	<2.12	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	<0.01	<0.005	<0.01	0.027	<0.0009
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<2	<1	-	<2.13	-	-	-	<0.03	<0.006	<0.006	-	-	-	<0.01	<0.005	-	<0.001	<0.0009
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<2	<1	<0.06	<2.14	-	-	<0.1	<0.03	<0.006	<0.006	-	-	<8	<0.01	<0.005	-	<0.001	<0.0009
TRIP BLANK	2023-03-21	CA15408-MAR23	<2	<1	-	<2.15	-	-	-	<0.03	<0.006	<0.007	-	-	-	<0.01	<0.005	-	0.005	<0.0009
TRIP BLANK	2023-03-21	CA15408-MAR23	<2	<1	<0.06	<2.16	-	-	<0.1	<0.03	<0.006	<0.007	-	-	<8	<0.01	<0.005	-	0.005	<0.0009
FIELD BLANK 01	2023-03-21	CA15408-MAR23	<2	<1	-	<2.17	-	-	-	<0.03	<0.006	<0.006	-	-	-	<0.01	<0.005	-	0.002	<0.0009
FIELD BLANK 01	2023-03-21	CA15408-MAR23	<2	<1	<0.06	<2.18	-	-	<0.1	<0.03	<0.006	<0.006	-	-	<8	<0.01	<0.005	-	0.002	<0.0009
TRAVEL BLANK	2023-05-14	WP2308112	<1	<1	-	<0.3	0.022	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK	2023-05-14	WP2308112	<1	<1	-	<0.3	0.083	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK	2023-05-29	WP2310321	<1	<1	-	<0.3	<0.01	-	-	<0.001	<0.005	<0.005	0.02	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
TRAVEL BLANK	2023-06-03	WP2310873	<1	<1	-	<0.3	1.06	-	-	<0.001	<0.005	<0.005	0.024	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK	2023-06-05	WP2310937	<1	0.1	-	<0.3	0.018	-	-	<0.001	<0.005	<0.005	0.0096	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK	2023-06-10	WP2311799	<1	<1	-	<0.3	<0.01	-	-	<0.001	<0.005	<0.005	0.0221	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
FIELD BLANK-01	2023-07-16	WP2316171	<1	<0.1	-	<0.3	0.024	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	0.001	<0.003	<0.0001
TRAVEL BLANK-01	2023-07-16	WP2316171	<1	<0.1	-	<0.3	<0.01	-	-	<0.001	0.0087	0.0087	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK-01	2023-08-05	WP2318603	<1	<0.1	-	<0.3	<0.01	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK-01	2023-09-02	WP2322077	<1	<0.1	-	<0.3	0.013	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
SW-TRAVEL-BLANK	2023-09-02	WP2322077	<1	<0.1	-	<0.3	0.026	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK-02	2023-09-04	WP2322079	<1	<0.1	-	<0.3	<0.01	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
SW-TRAVEL-BLANK	2023-10-10	WP2326292	<1	<0.1	-	<0.3	0.0107	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK03	2023-10-11	WP2326289	<1	<0.1	-	<0.3	<0.005	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK-02	2023-10-12	WP2326558	<1	<0.1	-	<0.3	<0.005	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	0.0038	<0.0001
BLANK-02	2023-10-14	WP2326559	<1	<0.1	-	<0.3	<0.005	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
SW-FIELDBLANK01	2023-11-04	WP2328799	<1	<0.1	-	<0.3	0.0074	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
SW-TRAVEL BLANK	2023-11-04	WP2328799	<1	<0.1	-	<0.3	<0.005	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
SW-FIELDBLANK02	2023-11-05	WP2328799	<1	<0.1	-	<0.3	0.0066	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
TRAVEL BLANK	2023-12-07	WP2332136	<1	<0.1	-	<0.3	<0.005	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
BLANK-01	2023-12-09	WP2332240	<1	<0.1	-	<0.3	<0.005	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
TRAVEL BLANK	2024-01-12	WP2401043	<1	<0.1	-	<0.3	<0.005	-	-	<0.001	<0.005	<0.005	<0.002	-	-	<0.001	<0.001	<0.001	<0.003	<0.0001
FIELD BLANK	2024-06-18	WP2415532-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-06-18	WP2415532-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP
SW-FieldBlank	2022-06-05	CA15234-JUN22	<0.0002	0.00164	<0.000007	<0.00001	<0.002	<0.000003	<0.01	-	0.00017	<0.000004	0.0002	<0.007	<0.00009	<0.0001	0.004	0.0001	<0.00001	<0.00004	<0.0001	<0.003
SW-TripBlank	2022-08-25	-	<0.0002	0.00029	<0.000007	<0.00001	0.016	<0.000003	<0.01	-	0.00016	0.000008	<0.0002	0.007	<0.00009	-	0.001	0.00012	<0.00001	0.00037	0.0001	<0.003
SW-TripBlank	2022-09-12	-	<0.0002	0.0015	<0.000007	<0.00001	<0.002	<0.000003	0.01	-	0.00016	<0.000004	<0.0002	<0.007	<0.00009	-	0.004	<0.00001	<0.00001	<0.00004	<0.0001	0.005
SW-TripBlank	2022-10-11	CA15227	<0.0002	0.0011	<0.000007	<0.00001	<0.002	0.000006	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	<0.00001	<0.00001	0.0138	<0.0001	<0.003
SW-FieldBlank01	2022-10-19	-	<0.0002	0.0393	<0.000007	<0.00001	<0.002	0.000006	0.12	-	<0.00008	0.000095	<0.0002	<0.007	<0.00009	-	0.008	0.00121	<0.00001	<0.00004	0.0002	<0.003
SW-FieldBlank02	2022-10-19	-	<0.0002	0.00228	<0.000007	<0.00001	<0.002	0.000008	0.02	-	<0.00008	0.000005	<0.0002	<0.007	<0.00009	-	0.002	0.00009	<0.00001	<0.00004	<0.0001	<0.003
SW-TripBlank	2022-11-09	-	<0.0002	0.00044	<0.000007	<0.00001	<0.002	<0.000003	0.02	-	0.00012	<0.000004	<0.0002	<0.007	<0.00009	-	0.004	0.00015	<0.00001	0.00041	0.0001	0.003
SW-FieldBlank01	2022-11-09	-	<0.0002	0.00073	0.000009	<0.00001	<0.002	<0.000003	0.02	-	0.00008	0.000006	<0.0002	<0.007	<0.00009	-	0.002	0.00006	<0.00001	<0.00004	<0.0001	0.004
SW-FieldBlank02	2022-11-10	-	<0.0002	0.00108	0.000009	<0.00001	<0.002	<0.000003	0.1	-	0.00034	<0.000004	0.0006	<0.007	<0.00009	-	0.004	0.00009	<0.00001	<0.00004	<0.0001	0.004
SW-TravelBlank	2022-12-14	CA15297-DEC22	<0.0002	0.00723	<0.000007	<0.00001	<0.002	<0.000003	0.01	-	0.00014	0.000011	<0.0002	<0.007	<0.00009	-	0.001	0.00014	<0.00001	<0.00004	<0.0001	<0.003
SW-FieldBlank01	2022-12-14	CA15297-DEC22	<0.0002	0.00133	<0.000007	0.00002	<0.002	<0.000003	<0.01	-	0.00008	<0.000004	<0.0002	0.009	<0.00009	-	0.001	0.00001	<0.00001	0.00005	<0.0001	<0.003
TRAVEL BLANK	2023-01-30	CA15070-FEB23	<0.0002	0.0244	<0.000007	<0.00001	0.012	0.000056	0.13	-	0.00295	0.000047	0.0002	0.065	0.0001	-	0.012	0.00103	<0.00001	<0.00004	0.0002	0.007
TRAVEL BLANK	2023-01-30	CA15070-FEB23	<0.0002	0.0244	<0.000007	<0.00001	<0.002	0.000009	0.13	-	0.00295	0.000047	0.0002	0.065	0.0001	-	0.012	0.00103	<0.00001	<0.00004	0.0002	0.007
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<0.0002	<0.00008	<0.000007	<0.00001	0.01	0.000008	<0.01	-	0.00016	0.000007	<0.0002	<0.007	<0.00009	-	0.002	<0.00001	<0.00001	<0.00004	<0.0001	0.004
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<0.0002	<0.00008	<0.000007	<0.00001	0.003	0.000003	<0.01	-	0.00016	0.000007	<0.0002	<0.007	<0.00009	-	0.002	<0.00001	<0.00001	<0.00004	<0.0001	0.004
TRIP BLANK	2023-03-21	CA15408-MAR23	<0.0002	<0.00008	<0.000007	<0.00001	0.007	0.000004	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	0.00001	<0.00001	<0.00004	<0.0001	<0.003
TRIP BLANK	2023-03-21	CA15408-MAR23	<0.0002	<0.00008	<0.000007	<0.00001	0.002	<0.000003	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	0.00001	<0.00001	<0.00004	<0.0001	<0.003
FIELD BLANK 01	2023-03-21	CA15408-MAR23	<0.0002	<0.00008	<0.000007	0.00001	0.006	0.000043	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	<0.00001	<0.00001	<0.00004	<0.0001	<0.003
FIELD BLANK 01	2023-03-21	CA15408-MAR23	<0.0002	<0.00008	<0.000007	<0.00001	0.002	<0.000003	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	<0.00001	<0.00001	<0.00004	<0.0001	<0.003
TRAVEL BLANK	2023-05-14	WP2308112	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.03
BLANK	2023-05-14	WP2308112	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.03
BLANK	2023-05-29	WP2310321	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	0.000027	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
TRAVEL BLANK	2023-06-03	WP2310873	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	0.000021	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK	2023-06-05	WP2310937	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK	2023-06-10	WP2311799	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	0.000032	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
FIELD BLANK-01	2023-07-16	WP2316171	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
TRAVEL BLANK-01	2023-07-16	WP2316171	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK-01	2023-08-05	WP2318603	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK-01	2023-09-02	WP2322077	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
SW-TRAVEL-BLANK	2023-09-02	WP2322077	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK-02	2023-09-04	WP2322079	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
SW-TRAVEL-BLANK	2023-10-10	WP2326292	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK03	2023-10-11	WP2326289	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK-02	2023-10-12	WP2326558	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK-02	2023-10-14	WP2326559	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	0.000064	<0.0005	<0.05
SW-FIELDBLANK01	2023-11-04	WP2328799	0.00015	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
SW-TRAVEL BLANK	2023-11-04	WP2328799	0.00012	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
SW-FIELDBLANK02	2023-11-05	WP2328799	0.00016	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
TRAVEL BLANK	2023-12-07	WP2332136	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
BLANK-01	2023-12-09	WP2332240	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.00005	<0.0005	<0.05
TRAVEL BLANK	2024-01-12	WP2401043	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0005	<0.0001	<0.0005	<0.01	<0.00005	<0.001	<0.005	<0.0001	<0.000005	<0.000050	<0.0005	<0.05
FIELD BLANK	2024-06-18	WP2415532-001	-	-	-	-	-	-	-	-	0.00332	-	-	-	-	-	-	-	-	-	-	<0.05
FIELD BLANK	2024-06-18	WP2415532-002	-	-	-	-	-	-	-	-	0.0007	-	-	-	-	-	-	-	-	-	-	<0.05

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-T (ICPMS-LL)	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T
SW-FieldBlank	2022-06-05	CA15234-JUN22	-	<0.009	-	<0.00004	<0.02	<0.00005	<0.01	0.00054	<1	-	<0.000005	-	<0.00006	-	<0.00002	0.000003	<0.00001	-	<0.002	<0.002
SW-TripBlank	2022-08-25	-	-	<0.009	-	<0.00004	-	<0.00005	0.02	0.00012	-	-	0.00008	-	0.00006	-	<0.00001	<0.000005	<0.000002	-	<0.00002	<0.002
SW-TripBlank	2022-09-12	-	-	<0.009	-	<0.00004	<0.02	<0.00005	0.39	0.00042	<1	-	<0.000005	-	0.00007	<0.00005	<0.00002	0.000002	0.00005	-	<0.002	<0.002
SW-TripBlank	2022-10-11	CA15227	-	<0.009	-	<0.00004	0.05	<0.00005	<0.01	0.00025	<1	-	<0.000005	-	<0.00006	0.00015	<0.00002	0.000004	<0.00001	-	<0.002	<0.002
SW-FieldBlank01	2022-10-19	-	-	<0.009	-	0.00006	0.1	<0.00005	0.02	0.0218	<1	-	<0.000005	-	<0.00006	0.00012	<0.00002	<0.000002	<0.00001	-	<0.002	<0.002
SW-FieldBlank02	2022-10-19	-	-	0.012	-	<0.00004	<0.02	<0.00005	0.01	0.00068	<1	-	<0.000005	-	<0.00006	0.00014	<0.00002	0.000003	<0.00001	-	<0.002	<0.002
SW-TripBlank	2022-11-09	-	-	<0.009	-	<0.00004	<0.02	<0.00005	<0.01	0.0001	<1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	0.000035	<0.00001	-	<0.002	<0.002
SW-FieldBlank01	2022-11-09	-	-	<0.009	-	<0.00004	<0.02	<0.00005	<0.01	0.00015	<1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	0.000002	0.00001	-	<0.002	<0.002
SW-FieldBlank02	2022-11-10	-	-	<0.009	-	<0.00004	<0.02	<0.00005	0.23	0.00049	<1	-	<0.000005	-	0.00011	<0.00005	<0.00002	<0.000002	0.00003	-	<0.002	<0.002
SW-TravelBlank	2022-12-14	CA15297-DEC22	-	<0.009	-	<0.00004	0.03	<0.00005	<0.01	0.0032	<1	-	<0.000005	-	<0.00006	0.00007	<0.00002	<0.000002	<0.00001	-	<0.002	<0.002
SW-FieldBlank01	2022-12-14	CA15297-DEC22	-	<0.009	-	<0.00004	<0.02	<0.00005	<0.01	0.00033	<1	-	<0.000005	-	<0.00006	0.00007	<0.00002	<0.000002	<0.00001	-	<0.002	<0.002
TRAVEL BLANK	2023-01-30	CA15070-FEB23	-	0.017	-	0.00053	0.08	<0.00005	0.07	0.01	<1	-	<0.000005	-	0.00019	0.00029	0.00002	0.000007	0.00002	-	0.002	<0.002
TRAVEL BLANK	2023-01-30	CA15070-FEB23	-	0.017	-	0.00053	0.08	<0.00005	0.07	0.01	<1	-	<0.000005	-	0.00019	0.00029	0.00002	0.000007	0.00002	0.00003	0.002	<0.002
TRAVEL BLANK	2023-02-13	CA15327-FEB23	-	0.013	-	<0.00004	<0.02	<0.00005	0.06	<0.00008	<1	-	<0.000005	-	<0.00006	0.00024	<0.00002	0.000052	<0.00001	-	<0.002	<0.002
TRAVEL BLANK	2023-02-13	CA15327-FEB23	-	0.013	-	<0.00004	<0.02	<0.00005	0.06	<0.00008	<1	-	<0.000005	-	<0.00006	0.00024	<0.00002	0.000052	<0.00001	<0.00002	<0.002	<0.002
TRIP BLANK	2023-03-21	CA15408-MAR23	-	<0.009	-	0.00006	<0.02	<0.00005	0.06	<0.00008	<1	-	<0.000005	-	0.00034	0.00005	<0.00002	<0.000002	<0.00001	-	<0.002	<0.002
TRIP BLANK	2023-03-21	CA15408-MAR23	-	<0.009	-	0.00006	<0.02	<0.00005	0.06	<0.00008	<1	-	<0.000005	-	0.00034	0.00005	<0.00002	<0.000002	<0.00001	<0.00002	<0.002	<0.002
FIELD BLANK 01	2023-03-21	CA15408-MAR23	-	<0.009	-	<0.00004	0.07	<0.00005	<0.01	<0.00008	<1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	<0.000002	<0.00001	-	0.003	<0.002
FIELD BLANK 01	2023-03-21	CA15408-MAR23	-	<0.009	-	<0.00004	0.07	<0.00005	<0.01	<0.00008	<1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	<0.000002	<0.00001	<0.00002	0.003	<0.002
TRAVEL BLANK	2023-05-14	WP2308112	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK	2023-05-14	WP2308112	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK	2023-05-29	WP2310321	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
TRAVEL BLANK	2023-06-03	WP2310873	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK	2023-06-05	WP2310937	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK	2023-06-10	WP2311799	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
FIELD BLANK-01	2023-07-16	WP2316171	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
TRAVEL BLANK-01	2023-07-16	WP2316171	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK-01	2023-08-05	WP2318603	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK-01	2023-09-02	WP2322077	-	0.025	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
SW-TRAVEL-BLANK	2023-09-02	WP2322077	-	0.025	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK-02	2023-09-04	WP2322079	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
SW-TRAVEL-BLANK	2023-10-10	WP2326292	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK03	2023-10-11	WP2326289	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK-02	2023-10-12	WP2326558	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK-02	2023-10-14	WP2326559	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
SW-FIELDBLANK01	2023-11-04	WP2328799	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
SW-TRAVEL BLANK	2023-11-04	WP2328799	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
SW-FIELDBLANK02	2023-11-05	WP2328799	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
TRAVEL BLANK	2023-12-07	WP2332136	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
BLANK-01	2023-12-09	WP2332240	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
TRAVEL BLANK	2024-01-12	WP2401043	-	<0.05	<0.0002	<0.00005	<0.1	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001	<0.0005	-	<0.003	<0.0002
FIELD BLANK	2024-06-18	WP2415532-001	0.044	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-06-18	WP2415532-002	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Al-D	Al-D (<0.2µm)	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D
SW-FieldBlank	2022-06-05	CA15234-JUN22	-	0.026	<0.0009	<0.0002	0.00263	<0.000007	<0.00001	<0.002	0.000033	0.62	-	0.00067	0.000078	0.0013	0.057	0.00088	<0.0001	0.055	0.00356	<0.00001
SW-TripBlank	2022-08-25	-	0.012	-	<0.0009	<0.0002	0.00025	<0.000007	<0.00001	0.006	<0.000004	0.04	-	0.00016	0.000008	<0.0002	0.013	<0.00009	-	0.002	0.00018	-
SW-TripBlank	2022-09-12	-	0.02	-	<0.0009	<0.0002	0.00138	<0.000007	<0.00001	<0.002	<0.000003	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.002	0.00001	-
SW-TripBlank	2022-10-11	CA15227	-	-	<0.0009	<0.0002	0.00102	<0.000007	<0.00001	<0.002	<0.000003	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	0.00006	-
SW-FieldBlank01	2022-10-19	-	0.027	-	<0.0009	0.0003	0.0329	<0.000007	<0.00001	<0.002	0.000003	0.22	-	<0.00008	0.000076	0.0005	0.011	<0.00009	-	0.039	0.00105	-
SW-FieldBlank02	2022-10-19	-	0.021	-	<0.0009	0.0004	0.00209	<0.000007	<0.00001	<0.002	0.000003	0.25	-	0.00015	0.000011	0.0003	0.01	<0.00009	-	0.021	<0.00001	-
SW-TripBlank	2022-11-09	-	0.014	-	<0.0009	<0.0002	0.00052	0.000008	<0.00001	<0.002	<0.000004	0.02	-	0.0217	<0.000004	<0.0002	<0.007	<0.00009	-	0.002	0.00007	-
SW-FieldBlank01	2022-11-09	-	0.01	-	<0.0009	<0.0002	0.00073	<0.000007	<0.00001	<0.002	<0.000004	0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	0.00005	-
SW-FieldBlank02	2022-11-10	-	0.003	-	<0.0009	<0.0002	0.00104	<0.000007	<0.00001	<0.002	<0.000004	0.06	-	0.00137	<0.000004	0.0006	<0.007	<0.00009	-	0.003	0.00007	-
SW-TravelBlank	2022-12-14	CA15297-DEC22	0.016	-	<0.0009	<0.0002	0.0047	<0.000007	<0.00001	<0.002	<0.000004	<0.01	-	<0.00008	0.000009	<0.0002	<0.007	<0.00009	-	0.002	0.00005	-
SW-FieldBlank01	2022-12-14	CA15297-DEC22	0.013	-	<0.0009	<0.0002	0.00117	<0.000007	<0.00001	<0.002	0.000004	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.003	<0.00001	-
TRAVEL BLANK	2023-01-30	CA15070-FEB23	-	-	<0.0006	<0.0002	0.0077	<0.000007	<0.00001	<0.002	0.000013	0.07	-	0.00078	0.000018	<0.0002	<0.007	<0.00009	-	0.005	0.00029	<0.00001
TRAVEL BLANK	2023-01-30	CA15070-FEB23	-	0.015	<0.0009	<0.0002	0.0077	<0.000007	<0.00001	<0.002	0.000013	0.07	-	0.00078	0.000018	<0.0002	<0.007	<0.00009	-	0.005	0.00029	<0.00001
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<0.001	-	<0.0006	<0.0002	0.00009	<0.000007	<0.00001	<0.002	0.000005	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	<0.00001	<0.00001
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<0.001	0.001	<0.0009	<0.0002	0.00009	<0.000007	<0.00001	<0.002	0.000005	<0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.001	<0.00001	<0.00001
TRIP BLANK	2023-03-21	CA15408-MAR23	0.003	-	<0.0006	<0.0002	<0.00008	<0.000007	<0.00001	<0.002	<0.000004	0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.002	0.00002	<0.00001
TRIP BLANK	2023-03-21	CA15408-MAR23	0.003	0.005	<0.0009	<0.0002	<0.00008	<0.000007	<0.00001	<0.002	<0.000004	0.01	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.002	0..00002	<0.00001
FIELD BLANK 01	2023-03-21	CA15408-MAR23	0.002	-	<0.0006	<0.0002	<0.00008	<0.000007	<0.00001	<0.002	<0.000004	0.12	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.005	0.0003	<0.00001
FIELD BLANK 01	2023-03-21	CA15408-MAR23	0.002	0.001	<0.0009	<0.0002	<0.00008	<0.000007	<0.00001	<0.002	<0.000004	0.12	-	<0.00008	<0.000004	<0.0002	<0.007	<0.00009	-	0.005	0.0003	<0.00001
TRAVEL BLANK	2023-05-14	WP2308112	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK	2023-05-14	WP2308112	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
TRAVEL BLANK	2023-05-14	WP2308112	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK	2023-05-29	WP2310321	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
TRAVEL BLANK	2023-06-03	WP2310873	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK	2023-06-05	WP2310937	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	0.00084	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK	2023-06-10	WP2311799	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
FIELD BLANK-01	2023-07-16	WP2316171	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
TRAVEL BLANK-01	2023-07-16	WP2316171	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK-01	2023-08-05	WP2318603	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK-01	2023-09-02	WP2322077	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
SW-TRAVEL-BLANK	2023-09-02	WP2322077	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	-
BLANK-02	2023-09-04	WP2322079	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
SW-TRAVEL-BLANK	2023-10-10	WP2326292	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	0.00032	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK03	2023-10-11	WP2326289	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK-02	2023-10-12	WP2326558	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK-02	2023-10-14	WP2326559	0.0074	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
SW-FIELDBLANK01	2023-11-04	WP2328799	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
SW-TRAVEL BLANK	2023-11-04	WP2328799	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
SW-FIELDBLANK02	2023-11-05	WP2328799	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
TRAVEL BLANK	2023-12-07	WP2332136	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
BLANK-01	2023-12-09	WP2332240	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.0001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
TRAVEL BLANK	2024-01-12	WP2401043	<0.001	-	<0.0001	<0.0001	<0.0001	<0.00002	<0.00005	<0.01	<0.000005	<0.05	<0.00001	<0.00001	<0.0001	<0.0002	<0.01	<0.00005	<0.001	<0.005	<0.00001	<0.000005
FIELD BLANK	2024-06-18	WP2415532-001	-	-	-	-	-	-	-	-	-	-	-	0.0014	-	-	-	-	-	-	-	-
FIELD BLANK	2024-06-18	WP2415532-002	-	-	-	-	-	-	-	-	-	-	-	0.00072	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Mo-D	Ni-D	P-D-ICPMS	P-D-ICPMS-LL	K-D	Rb-D mg/L	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D
SW-FieldBlank	2022-06-05	CA15234-JUN22	0.00011	0.0009	<0.003	-	0.022	-	<0.00004	0.07	<0.00005	0.1	0.00141	-	-	<0.000005	-	0.00078	-	0.00012	0.000013
SW-TripBlank	2022-08-25	-	0.0001	<0.0001	<0.003	-	<0.009	-	<0.00004	-	<0.00005	0.01	0.00013	-	-	0.00015	-	<0.00006	-	<0.00001	<0.000005
SW-TripBlank	2022-09-12	-	0.00004	<0.0001	<0.003	-	0.01	-	<0.00004	<0.02	<0.00005	0.27	0.00041	1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	0.000006
SW-TripBlank	2022-10-11	CA15227	0.00052	<0.0001	<0.003	-	<0.009	-	<0.00004	<0.02	<0.00005	0.02	0.00023	<1	-	<0.000005	-	<0.00006	0.00006	<0.00002	<0.000002
SW-FieldBlank01	2022-10-19	-	<0.00004	0.0004	0.007	-	0.011	-	0.00007	0.1	<0.00005	0.07	0.0186	<1	-	<0.000005	-	<0.00006	0.00016	<0.00002	0.00077
SW-FieldBlank02	2022-10-19	-	<0.00004	0.0002	0.004	-	<0.009	-	<0.00004	<0.02	<0.00005	<0.01	0.00079	<1	-	<0.000005	-	0.00028	0.00012	<0.00002	0.000257
SW-TripBlank	2022-11-09	-	<0.00004	<0.0001	0.008	-	0.019	-	<0.00004	<0.02	<0.00005	0.01	0.00013	<1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	<0.000002
SW-FieldBlank01	2022-11-09	-	<0.00004	<0.0001	<0.003	-	<0.009	-	<0.00004	<0.02	<0.00005	0.01	0.00014	<1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	<0.000002
SW-FieldBlank02	2022-11-10	-	<0.00004	0.0002	<0.003	-	<0.009	-	<0.00004	<0.02	<0.00005	0.24	0.0004	<1	-	<0.000005	-	0.0001	<0.00005	<0.00002	<0.000002
SW-TravelBlank	2022-12-14	CA15297-DEC22	0.00202	<0.0001	0.004	-	<0.009	-	<0.00004	0.02	<0.00005	<0.01	0.00179	<1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	<0.000002
SW-FieldBlank01	2022-12-14	CA15297-DEC22	0.004	<0.0001	<0.003	-	<0.009	-	<0.00004	<0.02	<0.00005	0.02	0.00035	<1	-	<0.000005	-	<0.00006	<0.00005	<0.00002	<0.000002
TRAVEL BLANK	2023-01-30	CA15070-FEB23	<0.00004	0.0001	0.007	-	0.019	-	<0.00004	0.03	<0.00005	0.07	0.00291	<1	-	<0.000005	-	<0.00006	0.00032	<0.00002	0.00002
TRAVEL BLANK	2023-01-30	CA15070-FEB23	<0.00004	0.0001	0.007	-	0.019	-	<0.00004	0.03	<0.00005	0.09	0.00291	<1	-	<0.000005	-	<0.00006	0.00032	<0.00002	0.00002
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<0.00004	<0.0001	0.004	-	0.012	-	<0.00004	<0.02	<0.00005	0.06	<0.00008	<1	-	<0.000005	-	<0.00006	0.00007	<0.00002	0.00003
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<0.00004	<0.0001	0.004	-	0.012	-	<0.00004	<0.02	<0.00005	0.04	<0.00008	<1	-	<0.000005	-	<0.00006	0.00007	<0.00002	0.00003
TRIP BLANK	2023-03-21	CA15408-MAR23	<0.00004	<0.0001	0.005	-	<0.006	-	<0.00004	<0.02	<0.00005	0.06	<0.00008	<1	-	<0.000005	-	<0.00006	0.00012	<0.00002	<0.000002
TRIP BLANK	2023-03-21	CA15408-MAR23	<0.00004	<0.0001	0.005	-	<0.009	-	<0.00004	<0.02	<0.00005	0.03	<0.00008	<1	-	<0.000005	-	<0.00006	0.00012	<0.00002	<0.000002
FIELD BLANK 01	2023-03-21	CA15408-MAR23	<0.00004	<0.0001	0.004	-	<0.006	-	<0.00004	<0.02	<0.00005	<0.01	0.00008	<1	-	<0.000005	-	0.0001	0.00006	<0.00002	<0.000002
FIELD BLANK 01	2023-03-21	CA15408-MAR23	<0.00004	<0.0001	0.004	-	<0.009	-	<0.00004	<0.02	<0.00005	<0.01	0.00008	<1	-	<0.000005	-	0.0001	0.00006	<0.00002	<0.000002
TRAVEL BLANK	2023-05-14	WP2308112	<0.00005	<0.0005	<0.03	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK	2023-05-14	WP2308112	<0.00005	<0.0005	<0.03	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK	2023-05-29	WP2310321	<0.00005	<0.0005	<0.03	-	<0.05	<0.0002	0.000062	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
TRAVEL BLANK	2023-06-03	WP2310873	<0.00005	<0.0005	<0.03	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK	2023-06-05	WP2310937	<0.00005	<0.0005	<0.03	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK	2023-06-10	WP2311799	<0.00005	<0.0005	<0.03	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
FIELD BLANK-01	2023-07-16	WP2316171	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
TRAVEL BLANK-01	2023-07-16	WP2316171	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK-01	2023-08-05	WP2318603	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	0.054	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK-01	2023-09-02	WP2322077	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
SW-TRAVEL-BLANK	2023-09-02	WP2322077	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK-02	2023-09-04	WP2322079	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
SW-TRAVEL-BLANK	2023-10-10	WP2326292	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK03	2023-10-11	WP2326289	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	0.00041	<0.0003	<0.0001	<0.00001
BLANK-02	2023-10-12	WP2326558	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK-02	2023-10-14	WP2326559	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
SW-FIELDBLANK01	2023-11-04	WP2328799	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
SW-TRAVEL BLANK	2023-11-04	WP2328799	0.000117	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
SW-FIELDBLANK02	2023-11-05	WP2328799	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
TRAVEL BLANK	2023-12-07	WP2332136	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
BLANK-01	2023-12-09	WP2332240	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
TRAVEL BLANK	2024-01-12	WP2401043	<0.00005	<0.0005	<0.05	-	<0.05	<0.0002	<0.00005	<0.05	<0.00001	<0.05	<0.0002	<0.5	<0.0002	<0.00001	<0.0001	<0.0001	<0.0003	<0.0001	<0.00001
FIELD BLANK	2024-06-18	WP2415532-001	-	-	<0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-06-18	WP2415532-002	-	-	<0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses *Table continues*

Station I.D.	Sample Collection Date	Lab Report No.	V-D	Y-D	Zn-D	Zr-D
SW-FieldBlank	2022-06-05	CA15234-JUN22	0.00011	-	0.009	<0.002
SW-TripBlank	2022-08-25	-	0.000003	-	<0.00002	<0.002
SW-TripBlank	2022-09-12	-	0.00003	-	<0.002	<0.002
SW-TripBlank	2022-10-11	CA15227	<0.00001	-	<0.002	<0.002
SW-FieldBlank01	2022-10-19	-	0.00003	-	<0.002	<0.002
SW-FieldBlank02	2022-10-19	-	0.00002	-	<0.002	<0.002
SW-TripBlank	2022-11-09	-	<0.00001	-	<0.002	<0.002
SW-FieldBlank01	2022-11-09	-	0.00001	-	<0.002	<0.002
SW-FieldBlank02	2022-11-10	-	0.00002	-	<0.002	<0.002
SW-TravelBlank	2022-12-14	CA15297-DEC22	<0.00001	-	<0.002	<0.002
SW-FieldBlank01	2022-12-14	CA15297-DEC22	<0.00001	-	<0.002	<0.002
TRAVEL BLANK	2023-01-30	CA15070-FEB23	<0.00001	-	0.002	<0.002
TRAVEL BLANK	2023-01-30	CA15070-FEB23	<0.00001	<0.00002	0.002	<0.002
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<0.00001	-	<0.002	<0.002
TRAVEL BLANK	2023-02-13	CA15327-FEB23	<0.00001	<0.00002	<0.002	<0.002
TRIP BLANK	2023-03-21	CA15408-MAR23	<0.00001	-	<0.002	<0.002
TRIP BLANK	2023-03-21	CA15408-MAR23	<0.00001	<0.00002	<0.002	<0.002
FIELD BLANK 01	2023-03-21	CA15408-MAR23	<0.00001	-	<0.002	<0.002
FIELD BLANK 01	2023-03-21	CA15408-MAR23	<0.00001	<0.00002	<0.002	<0.002
TRAVEL BLANK	2023-05-14	WP2308112	<0.0005	-	<0.001	<0.0003
BLANK	2023-05-14	WP2308112	<0.0005	-	<0.001	<0.0003
BLANK	2023-05-29	WP2310321	<0.0005	-	<0.001	<0.0003
TRAVEL BLANK	2023-06-03	WP2310873	<0.0005	-	<0.001	<0.0003
BLANK	2023-06-05	WP2310937	<0.0005	-	0.0011	<0.0003
BLANK	2023-06-10	WP2311799	<0.0005	-	<0.001	<0.0003
FIELD BLANK-01	2023-07-16	WP2316171	<0.0005	-	<0.001	<0.0003
TRAVEL BLANK-01	2023-07-16	WP2316171	<0.0005	-	<0.001	<0.0003
BLANK-01	2023-08-05	WP2318603	<0.0005	-	<0.001	<0.0003
BLANK-01	2023-09-02	WP2322077	<0.0005	-	<0.001	<0.0003
SW-TRAVEL-BLANK	2023-09-02	WP2322077	<0.0005	-	<0.001	<0.0003
BLANK-02	2023-09-04	WP2322079	<0.0005	-	<0.001	<0.0003
SW-TRAVEL-BLANK	2023-10-10	WP2326292	<0.0005	-	<0.001	<0.0003
BLANK03	2023-10-11	WP2326289	<0.0005	-	<0.001	<0.0003
BLANK-02	2023-10-12	WP2326558	<0.0005	-	<0.001	<0.0003
BLANK-02	2023-10-14	WP2326559	<0.0005	-	<0.001	<0.0003
SW-FIELDBLANK01	2023-11-04	WP2328799	<0.0005	-	<0.001	<0.0003
SW-TRAVEL BLANK	2023-11-04	WP2328799	<0.0005	-	<0.001	<0.0003
SW-FIELDBLANK02	2023-11-05	WP2328799	<0.0005	-	<0.001	<0.0003
TRAVEL BLANK	2023-12-07	WP2332136	<0.0005	-	<0.001	<0.0003
BLANK-01	2023-12-09	WP2332240	<0.0005	-	<0.001	<0.0003
TRAVEL BLANK	2024-01-12	WP2401043	<0.0005	-	<0.001	<0.0003
FIELD BLANK	2024-06-18	WP2415532-001	-	-	-	-
FIELD BLANK	2024-06-18	WP2415532-002	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	pH (Field)	pH (Lab)	Temperature (Field)	Acidity (as CaCO3)	Alk-T (as CaCO3)	Alk-Bicarbonate (as CaCO3)	Alk-Carbonate (as CaCO3)	Alk-Hydroxide (as CaCO3)	Alk-Phenolphthalein (as CaCO3)	Hardness-T (as CaCO3)	Hardness-D (as CaCO3)	Total Organic Carbon	Dissolved Organic Carbon	Total Dissolved Solids	Total Suspended Solids
FIELD BLANK	2024-06-18	WP2415532-003	3.86	4.38	16.8	17.3	<1.0	<1.0	<1.0	<1.0	<1.0	8.15	8.06	-	48.8	49	4.0
FIELD BLANK	2024-06-18	WP2415532-004	-	5.34	-	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	-	0.9	<3.0	<1.0
FIELD BLANK	2024-07-10	WP2417255-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Conductivity (Lab)	Cl-	F	SO4	NH_3 -T (as N)	NH_3-Unionized (as N)	NH_3+NH_4 (as N)	NO_2 (as N)	NO_3 (as N)	$NO_3 + NO_2$ (as N)	Total P (by Colour)	Dissolved Oxygen	COD	Cyanide-T	Cyanide-Free	Cyanide-WAD	Al-T	Sb-T
FIELD BLANK	2024-06-18	WP2415532-003	31.0	<0.10	-	<0.30	-	<0.0010	0.0052	<0.0010	0.0058	0.0058	0.0268	-	-	<0.0010	<0.0010	<0.0010	0.487	0.00017
FIELD BLANK	2024-06-18	WP2415532-004	<1.0	<0.10	-	<0.30	-	-	<0.0050	<0.0010	<0.0050	<0.0051	<0.0020	-	-	<0.0010	<0.0010	<0.0010	<0.003	<0.0001
FIELD BLANK	2024-07-10	WP2417255-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	As-T	Ba-T	Be-T	Bi-T	B-T	Cd-T	Ca-T	Cs-T	Cr-T	Co-T	Cu-T	Fe-T	Pb-T	Li-T	Mg-T	Mn-T	Hg-T	Mo-T	Ni-T	P-T-ICP
FIELD BLANK	2024-06-18	WP2415532-003	0.00552	0.00604	0.000027	<0	<0.01	1.88E-05	2.11	0.00001	0.0008	0.0004	0.00062	1.04	0.00045	0.0012	0.7	0.0155	0.000008	<0	0.00081	<0.05
FIELD BLANK	2024-06-18	WP2415532-004	<0.0001	<0.00010	<0	<0	<0.010	<0	<0.050	<0.000010	<0.00010	<0.00010	<0.0005	<0.01	<0	<0.001	<0.005	<0.0001	<0	<0.000050	<0.0005	<0.05
FIELD BLANK	2024-07-10	WP2417255-004	-	-	-	-	-	-	-	-	0.00171	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-001	-	-	-	-	-	-	-	-	0.00082	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-002	-	-	-	-	-	-	-	-	0.0011	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-003	-	-	-	-	-	-	-	-	0.00081	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-004	-	-	-	-	-	-	-	-	0.00117	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-005	-	-	-	-	-	-	-	-	0.00088	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	P-T (ICPMS-LL)	K-T	Rb-T	Se-T	Si-T	Ag-T	Na-T	Sr-T	S-T	Te-T	Tl-T	Th-T	Sn-T	Ti-T	W-T	U-T	V-T	Y-T	Zn-T	Zr-T
FIELD BLANK	2024-06-18	WP2415532-003	<0.03	<0.05	0.00021	<0	3.58	<0	0.851	0.0113	<0.50	<0.0002	<0	0.00013	<0.0001	0.0044	<0.0001	0.000079	0.00095	-	0.0037	0.00035
FIELD BLANK	2024-06-18	WP2415532-004	<0.03	<0.05	<0.00020	<0	<0.10	<0	<0.05	<0.0002	<0.50	<0.0002	<0	<0.00010	<0.0001	<0.0003	<0.0001	<0	<0.0005	-	<0.003	<0.0002
FIELD BLANK	2024-07-10	WP2417255-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Al-D	Al-D (<0.2µm)	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D
FIELD BLANK	2024-06-18	WP2415532-003	0.487	-	0.00017	0.00536	0.00614	0.000021	<0.000050	<0.010	1.57E-05	2.11	<0.000010	0.00077	0.00037	0.00062	1	0.00046	0.0012	0.678	0.015	5.8E-06
FIELD BLANK	2024-06-18	WP2415532-004	<0.0010	-	<0.00010	<0.00010	<0.00010	<0.000020	<0.000050	<0.010	<0.0000050	<0.050	<0.000010	<0.00010	<0.00010	<0.00020	<0.010	<0.000050	<0.0010	<0.0050	<0.00010	<0.0000050
FIELD BLANK	2024-07-10	WP2417255-004	-	-	-	-	-	-	-	-	-	-	-	0.00165	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-001	-	-	-	-	-	-	-	-	-	-	-	0.00048	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-002	-	-	-	-	-	-	-	-	-	-	-	0.00034	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-003	-	-	-	-	-	-	-	-	-	-	-	0.00029	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-004	-	-	-	-	-	-	-	-	-	-	-	0.00106	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-005	-	-	-	-	-	-	-	-	-	-	-	0.00084	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Mo-D	Ni-D	P-D-ICPMS	P-D-ICPMS-LL	K-D	Rb-D mg/L	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D
FIELD BLANK	2024-06-18	WP2415532-003	0.000052	0.00087	<0.030	-	<0.050	<0.00020	0.000192	3.25	<0.000010	0.814	0.0115	<0.50	<0.00020	<0.000010	0.00014	<0.00010	0.0042	<0.00010	0.000077
FIELD BLANK	2024-06-18	WP2415532-004	<0.000050	<0.00050	<0.030	-	<0.050	<0.00020	<0.000050	<0.050	<0.000010	<0.050	<0.00020	<0.50	<0.00020	<0.000010	<0.00010	<0.00010	<0.00030	<0.00010	<0.000010
FIELD BLANK	2024-07-10	WP2417255-004	-	-	0.047	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-001	-	-	0.038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-002	-	-	<0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-003	-	-	<0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-004	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-005	-	-	<0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-2 Surface Water Blank Analyses *Table completed*

Station I.D.	Sample Collection Date	Lab Report No.	V-D	Y-D	Zn-D	Zr-D
FIELD BLANK	2024-06-18	WP2415532-003	0.00082	-	0.005	0.00038
FIELD BLANK	2024-06-18	WP2415532-004	<0.00050	-	<0.0010	<0.00030
FIELD BLANK	2024-07-10	WP2417255-004	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-001	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-002	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-003	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-004	-	-	-	-
FIELD BLANK	2024-09-03	WP2421465-005	-	-	-	-

Notes:
All units are mg/L (unless otherwise noted)
- indicates no value available
-T denotes values are total concentrations
-D denotes values are dissolved concentrations
Grey highlighted values are greater than reported detection limit

Table B-3 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sample Type	pH - Field (pH units)	pH - Lab (pH units)	Acidity (as CaCO3)	Alkalinity - Bicarbonate (as CaCO3)	Alkalinity - Carbonate (as CaCO3)	Alkalinity - Hydroxide (as CaCO3)	Alkalinity - Phenolphthalein (as CaCO3)	Alkalinity - Total (as CaCO3)	Aluminum - Dissolved	Aluminum - Total	Aluminum (0.2µm)	Ammonia - Total (as N)	Ammonia - Unionized (as N)	Ammonia+ Ammonium (N)	Antimony - Dissolved
SW-11	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	3.86	4.38	17.3	<1.0	<1.0	<1.0	<1.0	<1.0	0.487	0.487	-	-	<0.0010	0.0052	0.00017
SW-TR	2024-06-18	WP2415532	Field Blank	-	5.34	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.0010	<0.003	-	-	-	<0.0050	<0.00010
SW-11	2024-07-10	WP2417255	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	-	5.5	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.0010	0.0041	-	-	-	0.0063	<0.00010
SW-04	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is an additional direct blanks export provided by Great Bear Resources.

Table B-3 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sample Type	Antimony - Total	Arsenic - Dissolved	Arsenic - Total	Barium - Dissolved	Barium - Total	Beryllium - Dissolved	Beryllium - Total	Bismuth - Dissolved	Bismuth - Total	Boron - Dissolved	Boron - Total	Cadmium - Dissolved	Cadmium - Total	Calcium - Dissolved	Calcium - Total	Carbon - Dissolved Organic
SW-11	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	0.00017	0.00536	0.00552	0.00614	0.00604	0.000021	0.000027	<0.000050	<0	<0.010	<0.01	0.0000157	0.0000188	2.11	2.11	48.8
SW-TR	2024-06-18	WP2415532	Field Blank	<0.0001	<0.00010	<0.0001	<0.00010	<0.00010	<0.000020	<0	<0.000050	<0	<0.010	<0.010	<0.0000050	<0	<0.050	<0.050	0.89
SW-11	2024-07-10	WP2417255	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000020	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	<0.050	<0.050	<0.50
SW-04	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is an additional direct blanks export provided by Great Bear Resources.

Table B-3 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sample Type	Cesium - Dissolved	Cesium - Total	Chemical Oxygen Demand	Chloride	Chromium - Dissolved	Chromium - Total	Cobalt - Dissolved	Cobalt - Total	Conductivity - Field (µS/cm)	Conductivity - Lab (µS/cm)	Conductivity - Specific - Field (µS/cm)	Copper - Dissolved	Copper - Total	Cyanide - Free	Cyanide - SAD	Cyanide - Total
SW-11	2024-06-18	WP2415532	Field Blank	-	-	-	-	0.0014	0.00332	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	-	-	-	-	0.00072	0.0007	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	<0.000010	0.00001	-	<0.10	0.00077	0.0008	0.00037	0.0004	-	31	-	0.00062	0.00062	<0.0010	<0.0010	-
SW-TR	2024-06-18	WP2415532	Field Blank	<0.000010	<0.000010	-	<0.10	<0.00010	<0.00010	<0.00010	<0.00010	-	<1.0	-	<0.00020	<0.0005	<0.0010	<0.0010	-
SW-11	2024-07-10	WP2417255	Field Blank	-	-	-	-	0.00165	0.00171	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	-	-	-	-	0.00093	0.00091	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	<0.000010	<0.000010	-	<0.10	<0.00050	<0.00050	<0.00010	<0.00010	-	1	-	<0.00020	<0.00050	0.0012	0.0011	-
SW-04	2024-08-04	WP2419020	Field Blank	-	-	-	-	0.00037	0.0008	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	WP2419020	Field Blank	-	-	-	-	0.00035	0.00074	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-08-04	WP2419020	Field Blank	-	-	-	-	0.00032	0.00067	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	WP2419020	Field Blank	-	-	-	-	0.00052	0.00058	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-08-04	WP2419020	Field Blank	-	-	-	-	0.001	0.00102	-	-	-	-	-	-	-	-	-	-
SW-03	2024-09-03	WP2421465	Field Blank	-	-	-	-	0.00048	0.00082	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465	Field Blank	-	-	-	-	0.00034	0.0011	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-09-03	WP2421465	Field Blank	-	-	-	-	0.00029	0.00081	-	-	-	-	-	-	-	-	-	-
SW-11	2024-09-03	WP2421465	Field Blank	-	-	-	-	0.00106	0.00117	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	WP2421465	Field Blank	-	-	-	-	0.00084	0.00088	-	-	-	-	-	-	-	-	-	-

Note: This is an additional direct blanks export provided by Great Bear Resources.

Table B-3 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sample Type	Cyanide - WAD	Discharge (m3/s)	Dissolved mercury filtration location	Dissolved metals filtration location	Dissolved Oxygen - Field	Fluoride	Hardness - Dissolved (as CaCO3)	Hardness - Total (as CaCO3)	Iron - Dissolved	Iron - Total	Lead - Dissolved	Lead - Total	Lithium - Dissolved	Lithium - Total	Magnesium - Dissolved	Magnesium - Total
SW-11	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	<0.0010	-	Field	Field	-	-	8.06	8.15	1	1.04	0.00046	0.00045	0.0012	0.0012	0.678	0.7
SW-TR	2024-06-18	WP2415532	Field Blank	<0.0010	-	Field	Field	-	-	<0.50	<0.50	<0.010	<0.01	<0.000050	<0	<0.0010	<0.001	<0.0050	<0.005
SW-11	2024-07-10	WP2417255	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	0.0011	-	Field	Field	-	-	<0.50	<0.50	<0.010	<0.010	<0.000050	<0.000050	<0.0010	<0.0010	<0.0050	<0.0050
SW-04	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is an additional direct blanks export provided by Great Bear Resources.

Table B-3 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sample Type	Manganese - Dissolved	Manganese - Total	Mercury - Dissolved	Mercury - Methyl (ng/L)	Mercury - Total	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved	Molybdenum - Total	Nickel - Dissolved	Nickel - Total	Nitrate (as N)	Nitrate + Nitrite (as N)	Nitrite (as N)	Phosphorus - Dissolved	Phosphorus - Dissolved by ICPMS	Phosphorus - Total (ICPMS - Low Level)
SW-11	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.030	0.044
SW-TR	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.030	<0.03
SW-TR	2024-06-18	WP2415532	Field Blank	0.015	0.0155	0.0000058	-	0.000008	-	0.000052	<0	0.00087	0.00081	0.0058	0.0058	<0.0010	-	<0.030	<0.03
SW-TR	2024-06-18	WP2415532	Field Blank	<0.00010	<0.0001	<0.0000050	-	<0	-	<0.000050	<0.000050	<0.00050	<0.0005	<0.0050	<0.0051	<0.0010	-	<0.030	<0.03
SW-11	2024-07-10	WP2417255	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.047	-
SW-01	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	<0.00010	<0.00010	<0.0000050	-	<0.0000050	-	<0.000050	<0.000050	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030	<0.050	<0.030
SW-04	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.038	-
SW-08	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.030	-
SW-08a	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.030	-
SW-11	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-
SW-TR	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.030	-

Note: This is an additional direct blanks export provided by Great Bear Resources.

Table B-3 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sample Type	Phosphorus - Total by Colour	Phosphorus - Total by ICPMS	Potassium - Dissolved	Potassium - Total	Rubidium - Dissolved	Rubidium - Total	Selenium - Dissolved	Selenium - Total	Silicon - Dissolved	Silicon - Total	Silver - Dissolved	Silver - Total	Sodium - Dissolved	Sodium - Total	Solids - Total Dissolved	Solids - Total Suspended
SW-11	2024-06-18	WP2415532	Field Blank	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	-	<0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	0.0268	<0.05	<0.050	<0.05	<0.00020	0.00021	0.000192	<0	3.25	3.58	<0.000010	<0	0.814	0.851	49	4
SW-TR	2024-06-18	WP2415532	Field Blank	<0.0020	<0.05	<0.050	<0.05	<0.00020	<0.00020	<0.000050	<0	<0.050	<0.10	<0.000010	<0	<0.050	<0.05	<3.0	<1.0
SW-11	2024-07-10	WP2417255	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	<0.0020	<0.050	<0.050	<0.050	<0.00020	<0.00020	<0.000050	<0.000050	<0.050	<0.10	<0.000010	<0.000010	<0.050	<0.050	<3.0	<1.0
SW-04	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is an additional direct blanks export provided by Great Bear Resources.

Table B-3 Surface Water Blank Analyses

Table continues

Station I.D.	Sample Collection Date	Lab Report No.	Sample Type	Strontium - Dissolved	Strontium - Total	Sulfur - Dissolved	Sulfur - Total	Sulphate (as SO4)	Tellurium - Dissolved	Tellurium - Total	Thallium - Dissolved	Thallium - Total	Thorium - Dissolved	Thorium - Total	Tin - Dissolved	Tin - Total	Titanium - Dissolved	Titanium - Total	Total Organic Carbon
SW-11	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	0.0115	0.0113	<0.50	<0.50	<0.30	<0.00020	<0.0002	<0.000010	<0	0.00014	0.00013	<0.00010	<0.0001	0.0042	0.0044	-
SW-TR	2024-06-18	WP2415532	Field Blank	<0.00020	<0.0002	<0.50	<0.50	<0.30	<0.00020	<0.0002	<0.000010	<0	<0.00010	<0.00010	<0.00010	<0.0001	<0.00030	<0.0003	-
SW-11	2024-07-10	WP2417255	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	<0.00020	<0.00020	<0.50	<0.50	<0.30	<0.00020	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030	-
SW-04	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is an additional direct blanks export provided by Great Bear Resources.

Table B-3 Surface Water Blank Analyses

Table completed.

Station I.D.	Sample Collection Date	Lab Report No.	Sample Type	Tungsten - Dissolved	Tungsten - Total	Turbidity (NTU)	Uranium - Dissolved	Uranium - Total	Vanadium - Dissolved	Vanadium - Total	Yttrium - Dissolved	Yttrium - Total	Zinc - Dissolved	Zinc - Total	Zirconium - Dissolved	Zirconium - Total
SW-11	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-06-18	WP2415532	Field Blank	<0.00010	<0.0001	-	0.000077	0.000079	0.00082	0.00095	-	-	0.005	0.0037	0.00038	0.00035
SW-TR	2024-06-18	WP2415532	Field Blank	<0.00010	<0.0001	-	<0.000010	<0	<0.00050	<0.0005	-	-	<0.0010	<0.003	<0.00030	<0.0002
SW-11	2024-07-10	WP2417255	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-01	2024-08-04	WP2419020	Field Blank	<0.00010	<0.00010	-	<0.000010	<0.000010	<0.00050	<0.00050	-	-	<0.0010	<0.0030	<0.00030	<0.00020
SW-04	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-GL02	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-08-04	WP2419020	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-03	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-08a	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-11	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-
SW-TR	2024-09-03	WP2421465	Field Blank	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is an additional direct blanks export provided by Great Bear Resources.

All units are mg/L (unless otherwise noted)
- indicates no value available
-T denotes values are total concentrations
-D denotes values are dissolved concentrations
Grey highlighted values are greater than reported detection limit

Table B-4 Groundwater Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Sample ID	Sample Collection Date	Lab Report No.	Conductivity (Lab)	pH (lab)	Acidity	Alk, bicarbonate (as CaCO3)	Alk, carbonate (as CaCO3)	Alk, hydroxide (as CaCO3)	Alk, phenolphthalein (as CaCO3)	Alk-Total	Hardness (as CaCO3)	Total Dissolved Solids	Cl-	NO_3-N	$NO_3 + NO_2$ (as N)
AEX Potable Well	2024-09-01	WP2421361-001	-	-	-	-	-	-	-	-	-	-	-	-	-
AEX Potable Well	2024-09-01	WP2421361-002	233	8.1	1	127	0.5	0.5	0.5	127	110	134	0.2	0.0425	0.0436
AEX Potable Well	2024-09-01	WP2421361-001	232	8.08	1	127	0.5	0.5	0.5	127	108	133	0.2	0.0408	0.042
		Duplicates Averaged	232.5	8.09	1	127	0.5	0.5	0.5	127	109	133.5	0.2	0.04165	0.0428
		Relative Percent Difference	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.7	0.0	4.0	3.7
BH22-120	2024-05-12	WP2411512-006	103	6.7	6.7	43.9	0.5	0.5	0.5	43.9	40.4	79.3	0.16	0.124	0.124
BH22-120	2024-05-12	WP2411512-004	103	6.75	5.2	44	0.5	0.5	0.5	44	34.1	73	0.16	0.126	0.126
		Duplicates Averaged	103	6.725	5.95	43.95	0.5	0.5	0.5	43.95	37.25	76.15	0.16	0.125	0.125
		Relative Percent Difference	0.0	0.7	22.4	0.2	0.0	0.0	0.0	0.2	15.6	7.9	0.0	1.6	1.6
BH22-120	2024-10-27	WP2425113-007	109	7.06	4.4	46.4	0.5	0.5	0.5	46.4	47.2	75.1	0.17	0.133	0.133
BH22-120	2024-10-27	WP2425113-005	108	7.05	4.7	45.7	0.5	0.5	0.5	45.7	45.7	74.1	0.18	0.133	0.134
		Duplicates Averaged	108.5	7.055	4.55	46.05	0.5	0.5	0.5	46.05	46.45	74.6	0.175	0.133	0.1335
		Relative Percent Difference	0.9	0.1	6.8	1.5	0.0	0.0	0.0	1.5	3.2	1.3	5.9	0.0	0.8
BH22-209	2024-05-08	WP2411242-005	264	8.03	1	142	0.5	0.5	0.5	142	124	144	0.76	0.0025	0.00255
BH22-209	2024-05-08	WP2411242-003	270	8.06	1	149	0.5	0.5	0.5	149	125	150	0.86	0.0025	0.00255
		Duplicates Averaged	267	8.045	1	145.5	0.5	0.5	0.5	145.5	124.5	147	0.81	0.0025	0.00255
		Relative Percent Difference	2.3	0.4	0.0	4.9	0.0	0.0	0.0	4.9	0.8	4.2	13.2	0.0	0.0
MW11/22 Shallow	2024-08-19	WP2420239-003	728	7.55	13	411	0.5	0.5	0.5	411	386	412	1.87	0.019	0.019
MW11/22 Shallow	2024-08-19	WP2420239-002	725	7.63	5	409	0.5	0.5	0.5	409	384	404	1.92	0.0192	0.0192
		Duplicates Averaged	726.5	7.59	9	410	0.5	0.5	0.5	410	385	408	1.895	0.0191	0.0191
		Relative Percent Difference	0.4	1.1	61.5	0.5	0.0	0.0	0.0	0.5	0.5	1.9	2.7	1.1	1.1
MW23-04 Deep	2024-05-06	WP2411243-001	612	7.82	6	348	0.5	0.5	0.5	348	333	317	0.34	0.0724	0.0724
MW23-04 Deep	2024-05-06	WP2411243-003	607	7.85	4.8	349	0.5	0.5	0.5	349	337	338	0.32	0.0741	0.0752
		Duplicates Averaged	609.5	7.835	5.4	348.5	0.5	0.5	0.5	348.5	335	327.5	0.33	0.07325	0.0738
		Relative Percent Difference	0.8	0.4	20.0	0.3	0.0	0.0	0.0	0.3	1.2	6.6	5.9	2.3	3.9
MW24-04	2024-10-20	WP2424642-006	320	8.27	1	176	0.5	0.5	0.5	176	115	221	0.57	0.0025	0.00255
MW24-04	2024-10-20	WP2424642-003	321	8.3	1	173	3.2	0.5	1.6	177	118	224	0.57	0.0025	0.00255
		Duplicates Averaged	320.5	8.285	1	174.5	1.85	0.5	1.05	176.5	116.5	222.5	0.57	0.0025	0.00255
		Relative Percent Difference	0.3	0.4	0.0	1.7	540.0	0.0	220.0	0.6	2.6	1.4	0.0	0.0	0.0
MW3/22	2024-08-25	WP2420719-003	114	7.33	2.6	56.6	0.5	0.5	0.5	56.6	38.5	78.5	0.27	0.0413	0.0413
MW3/22	2024-08-25	WP2420719-004	121	7.44	5.8	60	0.5	0.5	0.5	60	37.7	75.5	0.28	0.0291	0.0291
		Duplicates Averaged	117.5	7.385	4.2	58.3	0.5	0.5	0.5	58.3	38.1	77	0.275	0.0352	0.0352
		Relative Percent Difference	6.1	1.5	123.1	6.0	0.0	0.0	0.0	6.0	2.1	3.8	3.7	29.5	29.5
MW3/22	2024-10-16	WP2424433-002	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	WP2424433-003	96	7.19	7.6	44.9	0.5	0.5	0.5	44.9	30.5	75.3	0.18	0.0792	0.0792
MW3/22	2024-10-16	WP2424433-002	107	7.29	9.3	50.9	0.5	0.5	0.5	50.9	30.6	72.3	0.19	0.0783	0.0796
		Duplicates Averaged	101.5	7.24	8.45	47.9	0.5	0.5	0.5	47.9	30.55	73.8	0.185	0.07875	0.0794
		Relative Percent Difference	11.5	1.4	22.4	13.4	0.0	0.0	0.0	13.4	0.3	4.0	5.6	1.1	0.5
MW7/22 Deep	2024-08-25	WP2420667-005	180	7.92	4	88.5	0.5	0.5	0.5	88.5	77.3	120	0.26	0.0344	0.0344
MW7/22 Deep	2024-08-25	WP2420667-002	180	7.89	4.2	87.6	0.5	0.5	0.5	87.6	80.6	116	0.3	0.0427	0.0427
		Duplicates Averaged	180	7.905	4.1	88.05	0.5	0.5	0.5	88.05	78.95	118	0.28	0.03855	0.03855
		Relative Percent Difference	0.0	0.4	5.0	1.0	0.0	0.0	0.0	1.0	4.3	3.3	15.4	24.1	24.1
MW8/22	2024-05-05	WP2410623-006	350	7.39	27.6	190	0.5	0.5	0.5	190	180	208	0.21	0.131	0.132
MW8/22	2024-05-05	WP2410623-001	349	7.19	25	188	0.5	0.5	0.5	188	172	203	0.2	0.128	0.129
		Duplicates Averaged	349.5	7.29	26.3	189	0.5	0.5	0.5	189	176	205.5	0.205	0.1295	0.1305
		Relative Percent Difference	0.3	2.7	9.4	1.1	0.0	0.0	0.0	1.1	4.4	2.4	4.8	2.3	2.3
MW9/22 Deep	2024-10-13	WP2424231-001	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Deep	2024-10-13	WP2424231-003	272	8.3	1	148	4.8	0.5	2.4	153	127	170	0.27	0.0025	0.00255
MW9/22 Deep	2024-10-13	WP2424231-001	275	8.35	1	148	5	0.5	2.5	153	130	171	0.28	0.0025	0.00255

Table B-4 Groundwater Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Sample ID	Sample Collection Date	Lab Report No.	NO_2-N	P-T (by colour)	SO_4	CN-Free	CN-WAD	CN-SAD	Al-D	Sb-D	As-D	Ba-D	Be-D	Bi-D	Bo-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D
AEX Potable Well	2024-09-01	WP2421361-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00013	-	-	-	-	-
AEX Potable Well	2024-09-01	WP2421361-002	0.0011	0.0066	3.46	0.0005	0.0005	0.0005	0.0028	0.00005	0.00098	0.0165	0.00001	2.5E-05	0.005	2.5E-06	33.9	5E-06	0.00018	0.00024	0.00029	0.011	2.5E-05	0.0052
AEX Potable Well	2024-09-01	WP2421361-001	0.0012	0.0068	3.42	0.0005	0.0005	0.0005	0.0033	0.00005	0.00092	0.0166	0.00001	2.5E-05	0.005	2.5E-06	32.7	5E-06	0.00025	0.00024	0.00035	0.014	2.5E-05	0.0051
		Duplicates Averaged	0.00115	0.0067	3.44	0.0005	0.0005	0.0005	0.00305	0.00005	0.00095	0.01655	0.00001	2.5E-05	0.005	2.5E-06	33.3	5E-06	0.00019	0.00024	0.00032	0.0125	2.5E-05	0.00515
		Relative Percent Difference	9.1	3.0	1.2	0.0	0.0	0.0	17.9	0.0	6.1	0.6	0.0	0.0	0.0	0.0	3.5	0.0	92.3	0.0	20.7	27.3	0.0	1.9
BH22-120	2024-05-12	WP2411512-006	0.0005	0.004	5.49	0.0005	0.0005	0.0005	0.003	0.00005	0.00016	0.00548	0.00001	2.5E-05	0.005	8.6E-06	12.4	6.7E-05	0.00012	0.0003	0.00367	0.005	2.5E-05	0.0022
BH22-120	2024-05-12	WP2411512-004	0.0005	0.0049	5.58	0.0005	0.0005	0.0005	0.0034	0.00005	0.00015	0.00455	0.00001	2.5E-05	0.005	7E-06	10.6	5.6E-05	0.00005	0.00024	0.003	0.005	2.5E-05	0.0029
		Duplicates Averaged	0.0005	0.00445	5.535	0.0005	0.0005	0.0005	0.0032	0.00005	0.00016	0.00502	0.00001	2.5E-05	0.005	7.8E-06	11.5	6.2E-05	8.5E-05	0.00027	0.00334	0.005	2.5E-05	0.00255
		Relative Percent Difference	0.0	22.5	1.6	0.0	0.0	0.0	13.3	0.0	6.3	17.0	0.0	0.0	0.0	18.6	14.5	16.4	58.3	20.0	18.3	0.0	0.0	31.8
BH22-120	2024-10-27	WP2425113-007	0.0005	0.0027	5.83	0.0005	0.0005	0.0005	0.0035	0.00005	0.00021	0.00591	0.00001	2.5E-05	0.005	8.3E-06	14.6	8.6E-05	0.00005	0.00048	0.00473	0.005	2.5E-05	0.0023
BH22-120	2024-10-27	WP2425113-005	0.0015	0.0024	5.83	0.0005	0.0005	0.0005	0.0031	0.00005	0.0002	0.00568	0.00001	2.5E-05	0.005	9.4E-06	14.2	7.8E-05	0.00005	0.00049	0.00473	0.005	2.5E-05	0.0022
		Duplicates Averaged	0.001	0.00255	5.83	0.0005	0.0005	0.0005	0.0033	0.00005	0.00021	0.0058	0.00001	2.5E-05	0.005	8.9E-06	14.4	8.2E-05	0.00005	0.00049	0.00473	0.005	2.5E-05	0.00225
		Relative Percent Difference	200.0	11.1	0.0	0.0	0.0	0.0	11.4	0.0	4.8	3.9	0.0	0.0	0.0	13.3	2.7	9.3	0.0	2.1	0.0	0.0	0.0	4.3
BH22-209	2024-05-08	WP2411242-005	0.0005	0.0809	0.74	0.0005	0.0005	0.0005	0.009	0.00005	0.00071	0.0146	0.00001	2.5E-05	0.047	6.1E-06	32.4	5E-06	0.00005	0.00005	0.0001	0.057	2.5E-05	0.0101
BH22-209	2024-05-08	WP2411242-003	0.0005	0.103	0.15	0.0005	0.0005	0.0005	0.007	5E-05	0.0009	0.0166	1E-05	3E-05	0.046	6E-06	32.6	5E-06	5E-05	5E-05	0.0004	0.016	3E-05	0.0094
		Duplicates Averaged	0.0005	0.09195	0.445	0.0005	0.0005	0.0005	0.008	5E-05	0.0008	0.0156	1E-05	3E-05	0.0465	6E-06	32.5	5E-06	5E-05	5E-05	0.0002	0.0365	3E-05	0.0098
		Relative Percent Difference	0.0	27.3	79.7	0.0	0.0	0.0	22.2	0.0	25.4	13.7	0.0	0.0	2.1	4.9	0.6	0.0	0.0	0.0	270.0	71.9	0.0	6.9
MW11/22 Shallow	2024-08-19	WP2420239-003	0.0005	0.439	15.2	0.0005	0.0005	0.0005	0.0005	5E-05	0.0003	0.0663	1E-05	3E-05	0.015	9E-06	85	2E-05	0.0003	5E-05	0.0004	0.005	3E-05	0.0403
MW11/22 Shallow	2024-08-19	WP2420239-002	0.0005	0.401	15.6	0.0005	0.0005	0.0005	0.0026	5E-05	0.0003	0.0659	1E-05	3E-05	0.015	1E-05	83.2	2E-05	0.0003	5E-05	0.0004	0.005	3E-05	0.0402
		Duplicates Averaged	0.0005	0.42	15.4	0.0005	0.0005	0.0005	0.0016	5E-05	0.0003	0.0661	1E-05	3E-05	0.015	1E-05	84.1	2E-05	0.0003	5E-05	0.0004	0.005	3E-05	0.0403
		Relative Percent Difference	0.0	8.7	2.6	0.0	0.0	0.0	420.0	0.0	0.0	0.6	0.0	0.0	0.0	40.0	2.1	5.3	6.5	0.0	7.9	0.0	0.0	0.2
MW23-04 Deep	2024-05-06	WP2411243-001	0.0005	0.0402	5.73	0.0005	0.0005	0.0005	0.0025	5E-05	0.0004	0.0836	1E-05	3E-05	0.005	5E-06	82.3	5E-06	5E-05	0.0062	0.0008	0.244	3E-05	0.0251
MW23-04 Deep	2024-05-06	WP2411243-003	0.0011	0.0339	5.74	0.0005	0.0005	0.0005	0.0018	5E-05	0.0004	0.0842	1E-05	3E-05	0.005	5E-06	83.2	5E-06	5E-05	0.0063	0.0005	0.252	3E-05	0.0251
		Duplicates Averaged	0.0008	0.03705	5.735	0.0005	0.0005	0.0005	0.0022	5E-05	0.0004	0.0839	1E-05	3E-05	0.005	5E-06	82.75	5E-06	5E-05	0.0062	0.0007	0.248	3E-05	0.0251
		Relative Percent Difference	120.0	15.7	0.2	0.0	0.0	0.0	28.0	0.0	10.3	0.7	0.0	0.0	0.0	2.0	1.1	0.0	0.0	1.1	35.7	3.3	0.0	0.0
MW24-04	2024-10-20	WP2424642-006	0.0005	0.0415	3.9	0.0005	0.0005	0.0005	0.018	0.0001	0.001	0.0049	1E-05	3E-05	0.136	3E-06	31.5	5E-06	5E-05	0.0003	0.0001	0.066	3E-05	0.003
MW24-04	2024-10-20	WP2424642-003	0.0005	0.0903	3.89	0.0005	0.0005	0.0005	0.0179	0.0001	0.0011	0.0048	1E-05	3E-05	0.133	3E-06	32.3	5E-06	0.0003	0.0004	0.0001	0.068	3E-05	0.0028
		Duplicates Averaged	0.0005	0.0659	3.895	0.0005	0.0005	0.0005	0.018	0.0001	0.001	0.0049	1E-05	3E-05	0.1345	3E-06	31.9	5E-06	0.0002	0.0003	0.0001	0.067	3E-05	0.0029
		Relative Percent Difference	0.0	117.6	0.3	0.0	0.0	0.0	0.6	8.3	1.9	1.4	0.0	0.0	2.2	0.0	2.5	0.0	400.0	9.1	0.0	3.0	0.0	6.7
MW3/22	2024-08-25	WP2420719-003	0.0005	0.0079	1.35	0.0005	0.0005	0.0005	0.0072	0.0001	0.0004	0.0148	1E-05	3E-05	0.005	9E-06	12.5	5E-06	5E-05	0.0058	0.0012	4.3	3E-05	0.0019
MW3/22	2024-08-25	WP2420719-004	0.0005	0.0137	1.14	0.0005	0.0005	0.0005	0.0033	0.0001	0.0004	0.0146	1E-05	3E-05	0.005	1E-05	12.2	5E-06	5E-05	0.0058	0.0005	4.21	3E-05	0.0018
		Duplicates Averaged	0.0005	0.0108	1.245	0.0005	0.0005	0.0005	0.0053	0.0001	0.0004	0.0147	1E-05	3E-05	0.005	1E-05	12.35	5E-06	5E-05	0.0058	0.0009	4.255	3E-05	0.0019
		Relative Percent Difference	0.0	73.4	15.6	0.0	0.0	0.0	54.2	0.0	0.0	1.4	0.0	0.0	0.0	26.7	2.4	0.0	0.0	0.9	54.6	2.1	0.0	5.3
MW3/22	2024-10-16	WP2424433-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5E-05	-	-	-	-	-
MW3/22	2024-10-16	WP2424433-003	0.0005	0.0042	2.75	0.0005	0.0005	0.0005	0.0025	5E-05	0.0005	0.0145	1E-05	3E-05	0.005	2E-05	9.6	5E-06	5E-05	0.0113	0.0006	3.64	3E-05	0.0018
MW3/22	2024-10-16	WP2424433-002	0.0013	0.0035	2.74	0.0005	0.0005	0.0005	0.0025	0.0001	0.0005	0.0145	3E-05	3E-05	0.005	2E-05	9.7	5E-06	0.0003	0.011	0.0006	3.68	3E-05	0.0022
		Duplicates Averaged	0.0009	0.00385	2.745	0.0005	0.0005	0.0005	0.0025	9E-05	0.0005	0.0145	2E-05	3E-05	0.005	2E-05	9.65	5E-06	0.0001	0.0112	0.0006	3.66	3E-05	0.002
		Relative Percent Difference	160.0	16.7	0.4	0.0	0.0	0.0	0.0	140.0	3.7	0.0	160.0	0.0	0.0	0.5	1.0	0.0	400.0	2.7	10.9	1.1	0.0	22.2
MW7/22 Deep	2024-08-25	WP2420667-005	0.0005	0.0091	3.11	0.0005	0.0005	0.0005	0.0043	0.0001	0.0005	0.0132	1E-05	3E-05	0.005	3E-05	24.2	3E-05	5E-05	0.0003	0.0277	0.005	3E-05	0.0026
MW7/22 Deep	2024-08-25	WP2420667-002	0.0005	0.01	3.04	0.0005	0.0005	0.0005	0.0039	0.0001	0.0006	0.0133	1E-05	3E-05	0.005	3E-05	25.4	3E-05	0.0003	0.0003	0.0302	0.005	3E-05	0.0027
		Duplicates Averaged	0.0005	0.00955	3.075	0.0005	0.0005	0.0005	0.0041	0.0001	0.0006	0.0133	1E-05	3E-05	0.005	3E-05	24.8	3E-05	0.0002	0.0003	0.029	0.005	3E-05	0.0027
		Relative Percent Difference	0.0	9.9	2.3	0.0	0.0	0.0	9.3	0.0	17.3	0.8	0.0	0.0	0.0	26.0	5.0	5.9	400.0	3.2	9.0	0.0	0.0	3.8
MW8/22	2024-05-05	WP2410623-006	0.001	0.0067	5.07	0.0005	0.0005	0.0005	0.005	5E-05	0.0004	0.0311	1E-05	3E-05	0.005	8E-06	45.8	2E-05	0.0001	0.0005	0.0063	0.017	3E-05	0.0117
MW8/22	2024-05-05	WP2410623-001	0.0012	0.0092	4.79	0.0005	0.0005	0.0005	0.0037	5E-05	0.0004	0.031	1E-05	3E-05	0.005	1E-05	44.8	3E-05	0.0001	0.0004	0.0061	0.015	3E-05	0.0088
		Duplicates Averaged	0.0011	0.00795	4.93	0.0005	0.0005	0.0005	0.0044	5E-05	0.0004	0.0311	1E-05	3E-05	0.005	1E-05	45.3	2E-05	0.0001	0.0004	0.0062	0.016	3E-05	0.0103
		Relative Percent Difference	20.0	37.3	5.5	0.0	0.0	0.0	26.0	0.0	5.0	0.3	0.0	0.0	0.0	46.9	2.2	13.0	21.4	4.4	3.6	11.8	0.0	24.8
MW9/22 Deep	2024-10-13	WP2424231-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5E-05	-	-	-	-	-
MW9/22 Deep	2024-10-13	WP2424231-003	0.0005	0.0305	2.41	0.0005	0.0005	0.0005	0.0026	5E-05	0.0015	0.0124	1E-05	3E-05	0.005	3E-06	40.1	5E-06	5E-05	5E-05	0.0001	0.79	3E-05	0.0059
MW9/22 Deep	2024-10-13	WP2424231-001	0.0005	0.0282	2.44	0.0005	0.0005	0.0005	0.0026	5E-05	0.0015	0.0126	1E-05	3E-05	0.005	3E-06	40.9	5E-06	0.0003	5E-05	0.0001	0.755	3E-05	0.0064

Table B-4 Groundwater Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Sample ID	Sample Collection Date	Lab Report No.	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Zn-D	Zr-D
AEX Potable Well	2024-09-01	WP2421361-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEX Potable Well	2024-09-01	WP2421361-002	6.27	0.0437	2.5E-06	0.00077	0.0012	2.54	0.0009	0.0001	7.82	5E-06	3.27	0.0529	1.43	0.0001	5E-06	0.00005	0.00005	0.00015	0.00024	0.00074	0.00114	0.0005	0.00015
AEX Potable Well	2024-09-01	WP2421361-001	6.35	0.0443	2.5E-06	0.00076	0.00122	2.58	0.00081	7.6E-05	7.75	5E-06	3.28	0.0548	1.3	0.0001	5E-06	0.00005	0.00005	0.00015	0.00024	0.00072	0.00104	0.0005	0.00015
Duplicates Averaged			6.31	0.044	2.5E-06	0.00076	0.00121	2.56	0.00086	8.8E-05	7.785	5E-06	3.275	0.05385	1.365	0.0001	5E-06	0.00005	0.00005	0.00015	0.00024	0.00073	0.00109	0.0005	0.00015
Relative Percent Difference			1.3	1.4	0.0	1.2	1.7	1.6	10.0	24.0	0.9	0.0	0.3	3.6	9.1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.8	0.0	0.0
BH22-120	2024-05-12	WP2411512-006	2.28	0.0016	2.5E-06	0.00101	0.0017	1.46	0.00355	0.00033	7.46	5E-06	2.96	0.0442	2.04	0.0001	1.1E-05	0.00005	0.00005	0.00015	0.00012	0.00144	0.00025	0.0028	0.00015
BH22-120	2024-05-12	WP2411512-004	1.86	0.00138	2.5E-06	0.00083	0.00134	1.33	0.00311	0.00025	6.5	5E-06	2.37	0.0373	1.27	0.0001	5E-06	0.00005	0.00005	0.00015	0.00012	0.00121	0.00025	0.0022	0.00015
Duplicates Averaged			2.07	0.00149	2.5E-06	0.00092	0.00152	1.395	0.00333	0.00029	6.98	5E-06	2.665	0.04075	1.655	0.0001	8E-06	0.00005	0.00005	0.00015	0.00012	0.00133	0.00025	0.0025	0.00015
Relative Percent Difference			18.4	13.8	0.0	17.8	21.2	8.9	12.4	25.2	12.9	0.0	19.9	15.6	37.7	0.0	54.5	0.0	0.0	0.0	0.0	16.0	0.0	21.4	0.0
BH22-120	2024-10-27	WP2425113-007	2.6	0.00111	2.5E-06	0.00136	0.00186	1.68	0.00403	0.0003	7.99	5E-06	3.43	0.0522	2.08	0.0001	1.3E-05	0.00005	0.00005	0.00015	0.00028	0.0016	0.00025	0.0029	0.00015
BH22-120	2024-10-27	WP2425113-005	2.48	0.00101	2.5E-06	0.00126	0.00183	1.6	0.004	0.00026	7.88	5E-06	3.37	0.0527	1.95	0.0001	1.2E-05	0.00005	0.00005	0.00015	0.00028	0.00156	0.00025	0.0035	0.00015
Duplicates Averaged			2.54	0.00106	2.5E-06	0.00131	0.00185	1.64	0.00402	0.00028	7.935	5E-06	3.4	0.05245	2.015	0.0001	1.3E-05	0.00005	0.00005	0.00015	0.00028	0.00158	0.00025	0.0032	0.00015
Relative Percent Difference			4.6	9.0	0.0	7.4	1.6	4.8	0.7	13.2	1.4	0.0	1.7	1.0	6.3	0.0	7.7	0.0	0.0	0.0	0.0	2.5	0.0	20.7	0.0
BH22-209	2024-05-08	WP2411242-005	10.6	0.99	2.5E-06	0.0317	0.00086	1.64	0.00138	2.5E-05	6.79	5E-06	10.9	0.141	0.25	0.0001	5E-06	0.00005	0.00005	0.00015	1.77	0.00164	0.00025	0.0005	0.00015
BH22-209	2024-05-08	WP2411242-003	10.5	1.22	3E-06	0.0367	0.0007	1.56	0.0013	3E-05	6.56	5E-06	10.4	0.147	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	1.92	0.001	0.0003	0.0005	0.0002
Duplicates Averaged			10.55	1.105	3E-06	0.0342	0.0008	1.6	0.0013	3E-05	6.675	5E-06	10.65	0.144	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	1.845	0.0013	0.0003	0.0005	0.0002
Relative Percent Difference			0.9	23.2	0.0	15.8	24.4	4.9	7.2	0.0	3.4	0.0	4.6	4.3	0.0	0.0	0.0	0.0	0.0	0.0	8.5	39.6	0.0	0.0	0.0
MW11/22 Shallow	2024-08-19	WP2420239-003	42.2	0.0046	3E-06	0.0085	0.0017	6.07	0.0019	0.0009	7.16	5E-06	16.8	0.254	6.28	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	0.0112	0.0003	0.0005	0.0002
MW11/22 Shallow	2024-08-19	WP2420239-002	42.7	0.0037	3E-06	0.0083	0.0018	6.14	0.0021	0.001	6.93	5E-06	16.7	0.252	6.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	0.011	0.0003	0.0005	0.0002
Duplicates Averaged			42.45	0.0041	3E-06	0.0084	0.0018	6.105	0.002	0.001	7.045	5E-06	16.75	0.253	6.265	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	0.0111	0.0003	0.0005	0.0002
Relative Percent Difference			1.2	20.3	0.0	2.4	5.3	1.2	9.8	6.4	3.2	0.0	0.6	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0
MW23-04 Deep	2024-05-06	WP2411243-001	31	0.0961	3E-06	0.0052	0.0017	6.43	0.0033	0.0005	7.65	5E-06	10.4	0.15	2.83	0.0001	5E-06	5E-05	5E-05	0.0002	0.0451	0.0062	0.0003	0.0022	0.0002
MW23-04 Deep	2024-05-06	WP2411243-003	31.4	0.102	3E-06	0.0053	0.0016	6.5	0.0034	0.0006	7.69	5E-06	10.4	0.152	2.84	0.0001	5E-06	5E-05	5E-05	0.0002	0.0467	0.0061	0.0003	0.0027	0.0002
Duplicates Averaged			31.2	0.0991	3E-06	0.0053	0.0017	6.465	0.0034	0.0006	7.67	5E-06	10.4	0.151	2.835	0.0001	5E-06	5E-05	5E-05	0.0002	0.0459	0.0062	0.0003	0.0025	0.0002
Relative Percent Difference			1.3	6.1	0.0	1.9	5.3	1.1	1.5	12.4	0.5	0.0	0.0	1.3	0.4	0.0	0.0	0.0	0.0	0.0	3.5	1.8	0.0	22.7	0.0
MW24-04	2024-10-20	WP2424642-006	8.79	0.144	3E-06	0.0033	0.0019	3.29	0.0005	3E-05	9.97	5E-06	23.7	0.206	1.31	0.0001	5E-06	5E-05	0.0006	0.0004	0.0078	0.0016	0.0006	0.0014	0.0002
MW24-04	2024-10-20	WP2424642-003	9.08	0.146	3E-06	0.0034	0.0019	3.35	0.0005	6E-05	9.76	5E-06	24.8	0.212	1.44	0.0001	5E-06	5E-05	0.0006	0.0005	0.0079	0.0015	0.0006	0.0013	0.0002
Duplicates Averaged			8.935	0.145	3E-06	0.0033	0.0019	3.32	0.0005	4E-05	9.865	5E-06	24.25	0.209	1.375	0.0001	5E-06	5E-05	0.0006	0.0005	0.0078	0.0015	0.0006	0.0014	0.0002
Relative Percent Difference			3.3	1.4	0.0	3.7	0.5	1.8	7.8	132.0	2.1	0.0	4.6	2.9	9.9	0.0	0.0	0.0	3.2	19.0	0.4	0.6	1.6	7.1	0.0
MW3/22	2024-08-25	WP2420719-003	1.76	0.681	3E-06	0.0004	0.0416	2.3	0.0012	3E-05	10.1	5E-06	5.74	0.0372	0.51	0.0001	5E-06	5E-05	5E-05	0.0002	0.0082	5E-05	0.0003	0.0036	0.0002
MW3/22	2024-08-25	WP2420719-004	1.75	0.68	3E-06	0.0004	0.042	2.25	0.0013	3E-05	10.1	5E-06	5.62	0.0378	0.55	0.0001	5E-06	5E-05	5E-05	0.0002	0.0085	5E-05	0.0003	0.0019	0.0002
Duplicates Averaged			1.755	0.6805	3E-06	0.0004	0.0418	2.275	0.0013	3E-05	10.1	5E-06	5.68	0.0375	0.53	0.0001	5E-06	5E-05	5E-05	0.0002	0.0083	5E-05	0.0003	0.0028	0.0002
Relative Percent Difference			0.6	0.1	0.0	2.7	1.0	2.2	1.6	0.0	0.0	0.0	2.1	1.6	7.8	0.0	0.0	0.0	0.0	0.0	3.5	6.0	0.0	47.2	0.0
MW3/22	2024-10-16	WP2424433-002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	WP2424433-003	1.59	0.394	3E-06	0.0005	0.158	1.96	0.0013	3E-05	9.85	5E-06	3.22	0.0329	0.9	0.0001	5E-06	5E-05	5E-05	0.0002	0.013	5E-05	0.0003	0.0011	0.0002
MW3/22	2024-10-16	WP2424433-002	1.55	0.42	3E-06	0.0005	0.144	1.92	0.0013	0.0002	10.2	5E-06	3.26	0.0318	0.85	0.0001	1E-05	5E-05	5E-05	0.0002	0.0128	5E-05	0.0003	0.0016	0.0002
Duplicates Averaged			1.57	0.407	3E-06	0.0005	0.151	1.94	0.0013	1E-04	10.025	5E-06	3.24	0.0324	0.875	0.0001	8E-06	5E-05	5E-05	0.0002	0.0129	5E-05	0.0003	0.0014	0.0002
Relative Percent Difference			2.5	6.6	0.0	2.9	8.9	2.0	2.2	596.0	3.6	0.0	1.2	3.3	5.6	0.0	100.0	0.0	0.0	0.0	1.5	4.3	0.0	45.5	0.0
MW7/22 Deep	2024-08-25	WP2420667-005	4.1	0.0398	3E-06	0.0017	0.0023	1.79	0.0017	0.0001	7.41	5E-05	3.55	0.106	1.18	0.0001	5E-06	5E-05	5E-05	0.0002	0.49	0.0004	0.0008	0.005	0.0002
MW7/22 Deep	2024-08-25	WP2420667-002	4.16	0.0413	3E-06	0.0018	0.0025	1.78	0.0017	7E-05	7.83	5E-05	3.73	0.107	1.24	0.0001	5E-06	5E-05	5E-05	0.0002	0.529	0.0004	0.0007	0.0046	0.0002
Duplicates Averaged			4.13	0.0406	3E-06	0.0018	0.0024	1.785	0.0017	9E-05	7.62	5E-05	3.64	0.1065	1.21	0.0001	5E-06	5E-05	5E-05	0.0002	0.5095	0.0004	0.0008	0.0048	0.0002
Relative Percent Difference			1.5	3.8	0.0	8.3	5.1	0.6	1.2	36.4	5.7	8.9	5.1	0.9	5.1	0.0	0.0	0.0	0.0	0.0	8.0	3.3	5.2	8.0	0.0
MW8/22	2024-05-05	WP2410623-006	16	0.047	3E-06	0.0011	0.0027	2.2	0.0027	3E-05	11.3	5E-06	5.3	0.0563	1.87	0.0001	1E-05	5E-05	5E-05	0.0002	5E-05	0.0006	0.0008	0.0012	0.0002
MW8/22	2024-05-05	WP2410623-001	14.6	0.047	3E-06	0.0012	0.0026	2.13	0.0029	3E-05	10.3	5E-06	4.46	0.0564	1.82	0.0001	1E-05	5E-05	5E-05	0.0002	5E-05	0.0006	0.0007	0.0005	0.0002
Duplicates Averaged			15.3	0.047	3E-06	0.0012	0.0027	2.165	0.0028	3E-05	10.8	5E-06	4.88	0.0564	1.845	0.0001	1E-05	5E-05	5E-05	0.0002	5E-05	0.0006	0.0007	0.0009	0.0002
Relative Percent Difference			8.8	0.0	0.0	1.8	1.9	3.2	10.1	0.0	8.8	0.0	15.8	0.2	2.7	0.0	18.2	0.0	0.0	0.0	0.0	10.1	6.7	58.3	0.0
MW9/22 Deep	2024-10-13	WP2424231-001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Deep	2024-10-13	WP2424231-003	6.54	0.102	3E-06	0.0017	0.0003	2.79	0.0015	3E-05	6.74	5E-06	6	0.0738	0.9	0.0001	5E-06	5E-05	5E-05	0.0002	0.0035	0.0007	0.0003	0.0005	0.0002
MW9/22 Deep	2024-10-13	WP2424231-001	6.65	0.102	3E-06	0.0017	0.0003	2.75	0.0016	9E-05	6.88	5E-06	6.02	0.0752	0.97	0.0001	5E-06	5E-05	5E-05	0.0002	0.0036	0.0007	0.0003	0.0005	0.0002

Table B-4 Groundwater Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Sample ID	Sample Collection Date	Lab Report No.	MeHg (ng/L)	LL-Hg (ng/L)
AEX Potable Well	2024-09-01	WP2421361-001	-	-
AEX Potable Well	2024-09-01	WP2421361-002	-	-
AEX Potable Well	2024-09-01	WP2421361-001	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
BH22-120	2024-05-12	WP2411512-006	-	-
BH22-120	2024-05-12	WP2411512-004	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
BH22-120	2024-10-27	WP2425113-007	-	-
BH22-120	2024-10-27	WP2425113-005	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
BH22-209	2024-05-08	WP2411242-005	-	-
BH22-209	2024-05-08	WP2411242-003	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
MW11/22 Shallow	2024-08-19	WP2420239-003	-	-
MW11/22 Shallow	2024-08-19	WP2420239-002	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
MW23-04 Deep	2024-05-06	WP2411243-001	-	-
MW23-04 Deep	2024-05-06	WP2411243-003	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
MW24-04	2024-10-20	WP2424642-006	-	-
MW24-04	2024-10-20	WP2424642-003	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
MW3/22	2024-08-25	WP2420719-003	-	-
MW3/22	2024-08-25	WP2420719-004	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
MW3/22	2024-10-16	WP2424433-002	-	-
MW3/22	2024-10-16	WP2424433-003	-	-
MW3/22	2024-10-16	WP2424433-002	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
MW7/22 Deep	2024-08-25	WP2420667-005	-	-
MW7/22 Deep	2024-08-25	WP2420667-002	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
MW8/22	2024-05-05	WP2410623-006	-	-
MW8/22	2024-05-05	WP2410623-001	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
MW9/22 Deep	2024-10-13	WP2424231-001	-	-
MW9/22 Deep	2024-10-13	WP2424231-003	-	-
MW9/22 Deep	2024-10-13	WP2424231-001	-	-

Table B-4 Groundwater Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Sample ID	Sample Collection Date	Lab Report No.	Conductivity (Lab)	pH (lab)	Acidity	Alk, bicarbonate (as CaCO3)	Alk, carbonate (as CaCO3)	Alk, hydroxide (as CaCO3)	Alk, phenolphthalein (as CaCO3)	Alk-Total	Hardness (as CaCO3)	Total Dissolved Solids	Cl-	NO_3-N	$NO_3 + NO_2$ (as N)
		Duplicates Averaged	273.5	8.325	1	148	4.9	0.5	2.45	153	128.5	170.5	0.275	0.0025	0.00255
		Relative Percent Difference	1.1	0.6	0.0	0.0	4.2	0.0	4.2	0.0	2.4	0.6	3.7	0.0	0.0
PTL1MW3/22 Deep	2024-05-04	WP2410625-006	336	8.07	3.6	177	0.5	0.5	0.5	177	166	181	0.84	0.0774	0.0774
PTL1MW3/22 Deep	2024-05-04	WP2410625-004	337	7.96	3.7	178	0.5	0.5	0.5	178	163	179	0.9	0.087	0.087
		Duplicates Averaged	336.5	8.015	3.65	177.5	0.5	0.5	0.5	177.5	164.5	180	0.87	0.0822	0.0822
		Relative Percent Difference	0.3	1.4	2.8	0.6	0.0	0.0	0.0	0.6	1.8	1.1	7.1	12.4	12.4
PTL1MW3/22 Deep	2024-10-21	WP2424923-003	216	7.64	5.8	115	0.5	0.5	0.5	115	102	114	0.62	0.119	0.119
PTL1MW3/22 Deep	2024-10-21	WP2424923-001	335	8.21	1	176	0.5	0.5	0.5	176	171	164	0.87	0.0567	0.0567
		Duplicates Averaged	275.5	7.925	3.4	145.5	0.5	0.5	0.5	145.5	136.5	139	0.745	0.08785	0.08785
		Relative Percent Difference	55.1	7.5	82.8	53.0	0.0	0.0	0.0	53.0	67.6	43.9	40.3	52.4	52.4
BH23-AEX-25	2024-10-21	TMWATR112824CH1-007	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	TMWATR112824CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	MTWATR112824JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	MTWATR112824JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	MTWATR120424JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	MTWATR120424JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	MTWATR120224JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	MTWATR120224JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	MTWATR120224JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	MTWATR120224JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	TMWATR120324CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	TMWATR120324CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	TMWATR120324CH1-010	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	TMWATR120324CH1-009	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	TMWATR120224CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	TMWATR120224CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-4 Groundwater Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Sample ID	Sample Collection Date	Lab Report No.	NO_2-N	P-T (by colour)	SO_4	CN-Free	CN-WAD	CN-SAD	Al-D	Sb-D	As-D	Ba-D	Be-D	Bi-D	Bo-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D
		Duplicates Averaged	0.0005	0.02935	2.425	0.0005	0.0005	0.0005	0.0026	5E-05	0.0015	0.0125	1E-05	3E-05	0.005	3E-06	40.5	5E-06	0.0001	5E-05	0.0001	0.7725	3E-05	0.0062
		Relative Percent Difference	0.0	7.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	2.0	0.0	400.0	0.0	0.0	4.4	0.0	8.5
PTL1MW3/22 Deep	2024-05-04	WP2410625-006	0.0005	0.0201	9.96	0.0005	0.0005	0.0005	0.0018	5E-05	0.0003	0.0386	1E-05	3E-05	0.005	3E-06	46.2	0.0001	5E-05	0.0014	0.0005	0.072	3E-05	0.0105
PTL1MW3/22 Deep	2024-05-04	WP2410625-004	0.0005	0.0215	9.83	0.0005	0.0005	0.0005	0.0012	5E-05	0.0003	0.0391	1E-05	3E-05	0.005	3E-06	45.6	0.0001	5E-05	0.0014	0.0003	0.071	3E-05	0.0106
		Duplicates Averaged	0.0005	0.0208	9.895	0.0005	0.0005	0.0005	0.0015	5E-05	0.0003	0.0389	1E-05	3E-05	0.005	3E-06	45.9	0.0001	5E-05	0.0014	0.0004	0.0715	3E-05	0.0106
		Relative Percent Difference	0.0	7.0	1.3	0.0	0.0	0.0	33.3	0.0	3.6	1.3	0.0	0.0	0.0	0.0	1.3	4.4	0.0	0.0	41.7	1.4	0.0	1.0
PTL1MW3/22 Deep	2024-10-21	WP2424923-003	0.0005	0.0446	3	0.0005	0.0005	0.0005	0.0018	0.0004	0.0003	0.0137	1E-05	3E-05	0.005	3E-06	26.1	5E-06	0.0002	0.0035	0.0021	0.005	3E-05	0.005
PTL1MW3/22 Deep	2024-10-21	WP2424923-001	0.0005	0.0044	11	0.0005	0.0005	0.0005	0.0012	5E-05	0.0005	0.037	1E-05	3E-05	0.005	3E-06	47.9	0.0001	5E-05	0.0009	0.0007	0.106	3E-05	0.0104
		Duplicates Averaged	0.0005	0.0245	7	0.0005	0.0005	0.0005	0.0015	0.0002	0.0004	0.0254	1E-05	3E-05	0.005	3E-06	37	6E-05	0.0001	0.0022	0.0014	0.0555	3E-05	0.0077
		Relative Percent Difference	0.0	90.1	266.7	0.0	0.0	0.0	33.3	88.4	40.6	170.1	0.0	0.0	0.0	0.0	83.5	2340.0	66.7	73.4	68.5	2020.0	0.0	108.0
BH23-AEX-25	2024-10-21	TMWATR112824CH1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	TMWATR112824CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	MTWATR112824JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	MTWATR112824JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	MTWATR120424JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	MTWATR120424JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	MTWATR120224JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	MTWATR120224JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	MTWATR120224JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	MTWATR120224JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	TMWATR120324CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	TMWATR120324CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	TMWATR120324CH1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	TMWATR120324CH1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	TMWATR120224CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	TMWATR120224CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-4 Groundwater Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Sample ID	Sample Collection Date	Lab Report No.	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	K-D	Rb-D	Se-D	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Zn-D	Zr-D
		Duplicates Averaged	6.595	0.102	3E-06	0.0017	0.0003	2.77	0.0016	6E-05	6.81	5E-06	6.01	0.0745	0.935	0.0001	5E-06	5E-05	5E-05	0.0002	0.0036	0.0007	0.0003	0.0005	0.0002
		Relative Percent Difference	1.7	0.0	0.0	0.6	0.0	1.4	3.9	256.0	2.1	0.0	0.3	1.9	7.8	0.0	0.0	0.0	0.0	0.0	0.8	5.4	0.0	0.0	0.0
PTL1MW3/22 Deep	2024-05-04	WP2410625-006	12.2	0.0442	3E-06	0.0039	0.0043	4.82	0.005	0.0005	6.02	5E-06	4.12	0.0711	3.83	0.0001	5E-06	5E-05	5E-05	0.0002	0.361	0.0041	0.0003	0.0005	0.0002
PTL1MW3/22 Deep	2024-05-04	WP2410625-004	12	0.0436	3E-06	0.0041	0.0043	4.67	0.0049	0.0005	6.14	5E-06	4.18	0.0754	3.94	0.0001	5E-06	5E-05	5E-05	0.0002	0.372	0.0042	0.0003	0.0005	0.0002
		Duplicates Averaged	12.1	0.0439	3E-06	0.004	0.0043	4.745	0.005	0.0005	6.08	5E-06	4.15	0.0733	3.885	0.0001	5E-06	5E-05	5E-05	0.0002	0.3665	0.0041	0.0003	0.0005	0.0002
		Relative Percent Difference	1.6	1.4	0.0	6.2	0.7	3.1	2.0	3.0	2.0	0.0	1.5	6.0	2.9	0.0	0.0	0.0	0.0	0.0	3.0	1.2	0.0	0.0	0.0
PTL1MW3/22 Deep	2024-10-21	WP2424923-003	8.99	0.0448	3E-06	0.0031	0.006	2.98	0.0019	0.0001	6.93	5E-06	5.35	0.0912	1.23	0.0001	5E-06	5E-05	5E-05	0.0002	0.0052	0.0007	0.0003	0.0024	0.0002
PTL1MW3/22 Deep	2024-10-21	WP2424923-001	12.6	0.0338	3E-06	0.0036	0.0031	4.66	0.0043	0.0002	6.53	5E-06	4.15	0.0758	4.35	0.0001	5E-06	5E-05	5E-05	0.0002	0.196	0.0035	0.0003	0.0005	0.0002
		Duplicates Averaged	10.795	0.0393	3E-06	0.0033	0.0046	3.82	0.0031	0.0001	6.73	5E-06	4.75	0.0835	2.79	0.0001	5E-06	5E-05	5E-05	0.0002	0.1006	0.0021	0.0003	0.0015	0.0002
		Relative Percent Difference	40.2	24.6	0.0	16.4	48.0	56.4	129.1	31.5	5.8	0.0	22.4	16.9	253.7	0.0	0.0	0.0	0.0	0.0	3662.0	398.6	0.0	79.2	0.0
BH23-AEX-25	2024-10-21	TMWATR112824CH1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	TMWATR112824CH1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	MTWATR112824JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23-AEX-25	2024-10-21	MTWATR112824JS1-005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	MTWATR120424JS1-007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	MTWATR120424JS1-006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	MTWATR120224JS1-014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	MTWATR120224JS1-013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	MTWATR120224JS1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	MTWATR120224JS1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	TMWATR120324CH1-004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	TMWATR120324CH1-003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	TMWATR120324CH1-010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	TMWATR120324CH1-009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	TMWATR120224CH1-016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	TMWATR120224CH1-015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Duplicates Averaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Relative Percent Difference	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table B-4 Groundwater Duplicate Sample Analyses: Averaged Values and Relative Percent Difference

Sample ID	Sample Collection Date	Lab Report No.	MeHg (ng/L)	LL-Hg (ng/L)
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
PTL1MW3/22 Deep	2024-05-04	WP2410625-006	-	-
PTL1MW3/22 Deep	2024-05-04	WP2410625-004	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
PTL1MW3/22 Deep	2024-10-21	WP2424923-003	-	-
PTL1MW3/22 Deep	2024-10-21	WP2424923-001	-	-
		Duplicates Averaged	-	-
		Relative Percent Difference	-	-
BH23-AEX-25	2024-10-21	TMWATR112824CH1-007	-	36.9
BH23-AEX-25	2024-10-21	TMWATR112824CH1-006	-	33.7
		Duplicates Averaged	-	35.3
		Relative Percent Difference	-	8.7
BH23-AEX-25	2024-10-21	MTWATR112824JS1-006	0.205	-
BH23-AEX-25	2024-10-21	MTWATR112824JS1-005	0.227	-
		Duplicates Averaged	0.216	-
		Relative Percent Difference	10.7	-
MW10/22 Deep	2024-10-23	MTWATR120424JS1-007	0.034	-
MW10/22 Deep	2024-10-23	MTWATR120424JS1-006	0.037	-
		Duplicates Averaged	0.0355	-
		Relative Percent Difference	8.8	-
MW23-10	2024-10-23	MTWATR120224JS1-014	0.65	-
MW23-10	2024-10-23	MTWATR120224JS1-013	0.751	-
		Duplicates Averaged	0.7005	-
		Relative Percent Difference	15.5	-
MW23-14	2024-10-22	MTWATR120224JS1-010	0.006	-
MW23-14	2024-10-22	MTWATR120224JS1-009	0.006	-
		Duplicates Averaged	0.006	-
		Relative Percent Difference	0.0	-
MW3/22	2024-10-16	TMWATR120324CH1-004	-	0.42
MW3/22	2024-10-16	TMWATR120324CH1-003	-	0.46
		Duplicates Averaged	-	0.44
		Relative Percent Difference	-	9.5
MW9/22 Shallow	2024-10-13	TMWATR120324CH1-010	-	15.4
MW9/22 Shallow	2024-10-13	TMWATR120324CH1-009	-	15
		Duplicates Averaged	-	15.2
		Relative Percent Difference	-	2.6
MW24-09	2024-10-23	TMWATR120224CH1-016	-	16.5
MW24-09	2024-10-23	TMWATR120224CH1-015	-	17.9
		Duplicates Averaged	-	17.2
		Relative Percent Difference	-	8.5

Notes:
All units are mg/L (unless otherwise noted)
- indicates no value available
- D denotes values are dissolved concentrations

Table B-5 Groundwater Blank Analyses

Sample ID	Sample Collection Date	Lab Report No.	pH	Conductivity	Acidity	Alk, bicarbonate (as CaCO3)	Alk, carbonate (as CaCO3)	Alk, hydroxide (as CaCO3)	Alk, phenolphthalein (as CaCO3)	Alk-T	Hardness -D	Total Dissolved Solids	NH_3-T (as N)	Cl-	NO_3-N	NO_3-N + NO_2-N	NO_2-N	P-T (by colour)	SO_4	CN-Free	CN-T
BLANK	2023-05-24	WP2309561	5.47	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.005	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
BLANK	2023-07-05	WP2314639	5.65	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.005	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
BLANK	2023-10-03	WP2325644	5.53	1	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.0025	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
BLANK-03	2023-10-15	WP2326561	5.27	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.0025	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
BLANK04	2023-10-13	WP2326562	5.39	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	37.7	0.0025	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
BLANK-04	2023-08-21	WP2320880	5.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.005	0.05	0.005	0.0026	0.0005	0.001	0.15	0.0005	0.0005
FIELDBLANK04	2023-07-06	WP2314754	5.73	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.005	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
GW BLANK 01	2023-08-03	WP2318363	5.46	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.014	0.05	0.0025	0.0025	0.0005	0.001	0.15	0.0005	0.0005
GW BLANK 02	2023-08-05	WP2318597	5.51	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.018	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
GW-BLANK02	2023-10-09	WP2325930	5.34	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.0025	0.05	0.0025	0.0025	0.0005	0.001	0.15	0.0005	0.0005
TRAVEL BLANK	2023-05-24	WP2309561	5.44	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.024	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
TRAVEL BLANK	2023-08-05	WP2318597	5.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.005	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005
TRAVEL BLANK	2023-10-03	WP2325644	5.72	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.0025	0.05	0.0025	0.0026	0.0005	0.001	0.15	0.0005	0.0005

Table B-5 Groundwater Blank Analyses

Sample ID	Sample Collection Date	Lab Report No.	CN-WAD	Al-D	Sb-D	As-D	Ba-D	Be-D	Bi-D	B-D	Cd-D	Ca-D	Cs-D	Cr-D	Co-D	Cu-D	Fe-D	Pb-D	Li-D	Mg-D	Mn-D	Hg-D	Mo-D	Ni-D	P-D	K-D	Rb-D	Se-D
BLANK	2023-05-24	WP2309561	0.0005	0.0011	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	5E-05	5E-05	0.0002	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-06	0.0003	0.015	0.025	0.0001	3E-05
BLANK	2023-07-05	WP2314639	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	5E-05	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-05	0.0003	0.015	0.025	0.0001	3E-05
BLANK	2023-10-03	WP2325644	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	0.0003	5E-05	0.0001	0.005	3E-05	0.0005	0.0088	5E-05	3E-06	3E-05	0.0003	0.025	0.025	0.0001	3E-05
BLANK-03	2023-10-15	WP2326561	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	0.0003	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-05	0.0003	0.025	0.025	0.0001	3E-05
BLANK04	2023-10-13	WP2326562	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	0.0003	5E-05	0.0005	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-05	0.0003	0.025	0.025	0.0001	3E-05
BLANK-04	2023-08-21	WP2320880	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	0.0003	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-05	0.0003	0.025	0.025	0.0001	3E-05
FIELDBLANK04	2023-07-06	WP2314754	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	5E-05	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	0.0003	0.0003	0.015	0.025	0.0001	3E-05
GW BLANK 01	2023-08-03	WP2318363	0.0005	0.001	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	5E-05	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-06	0.0003	0.015	0.025	0.0001	3E-05
GW BLANK 02	2023-08-05	WP2318597	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	5E-05	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-05	0.0003	0.015	0.025	0.0001	3E-05
GW-BLANK02	2023-10-09	WP2325930	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	0.0003	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-06	0.0003	0.025	0.025	0.0001	3E-05
TRAVEL BLANK	2023-05-24	WP2309561	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	5E-05	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-06	0.0003	0.015	0.025	0.0001	3E-05
TRAVEL BLANK	2023-08-05	WP2318597	0.0005	0.0012	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	5E-05	5E-05	0.0001	0.005	3E-05	0.0005	0.0025	5E-05	3E-06	3E-05	0.0003	0.015	0.025	0.0001	3E-05
TRAVEL BLANK	2023-10-03	WP2325644	0.0005	0.0005	5E-05	5E-05	5E-05	1E-05	3E-05	0.005	3E-06	0.025	5E-06	0.0003	5E-05	0.0001	0.005	3E-05	0.0005	0.0086	5E-05	3E-06	3E-05	0.0003	0.025	0.025	0.0001	3E-05

Table B-5 Groundwater Blank Analyses

Sample ID	Sample Collection Date	Lab Report No.	Si-D	Ag-D	Na-D	Sr-D	S-D	Te-D	Tl-D	Th-D	Sn-D	Ti-D	W-D	U-D	V-D	Zn-D	Zr-D
BLANK	2023-05-24	WP2309561	0.025	5E-06	0.025	0.0001	0.025	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
BLANK	2023-07-05	WP2314639	0.025	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-06	5E-06	0.0003	0.0005	0.0002
BLANK	2023-10-03	WP2325644	0.025	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
BLANK-03	2023-10-15	WP2326561	0.025	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
BLANK04	2023-10-13	WP2326562	0.025	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
BLANK-04	2023-08-21	WP2320880	0.025	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
FIELDBLANK04	2023-07-06	WP2314754	0.025	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
GW BLANK 01	2023-08-03	WP2318363	0.062	5E-06	0.025	0.0001	0.025	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
GW BLANK 02	2023-08-05	WP2318597	7.27	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
GW-BLANK02	2023-10-09	WP2325930	0.025	5E-06	0.025	0.0001	0.025	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
TRAVEL BLANK	2023-05-24	WP2309561	0.025	5E-06	0.025	0.0001	0.025	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
TRAVEL BLANK	2023-08-05	WP2318597	0.05	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002
TRAVEL BLANK	2023-10-03	WP2325644	0.025	5E-06	0.025	0.0001	0.25	0.0001	5E-06	5E-05	5E-05	0.0002	5E-05	5E-06	0.0003	0.0005	0.0002

Notes:
All units are mg/L (unless otherwise noted)
- indicates no value available
- D denotes values are dissolved concentrations

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2309398**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 25-May-2023 08:50
PO	: ----	Date Analysis Commenced	: 25-May-2023
C-O-C number	: ----	Issue Date	: 05-Jun-2023 16:05
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Matthew Bouch		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	SW-18	SW-17	SW-11	SW-08A
					Client sampling date / time	21-May-2023 08:15	21-May-2023 08:40	21-May-2023 09:40	21-May-2023 10:40	21-May-2023 11:30
						WP2309398-001	WP2309398-002	WP2309398-003	WP2309398-004	WP2309398-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.85	6.58	5.50	6.68	7.11
Temperature, field	----	EF001/WP	0.10	°C		14.3	11.5	11.6	11.3	9.34
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.1	6.5	7.8	3.0	2.6
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		38.8	37.6	4.5	37.8	42.6
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		38.8	37.6	4.5	37.8	42.6
Conductivity	----	E100/WP	1.0	µS/cm		86.8	321	29.3	97.2	106
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		43.5	57.8	13.5	48.5	52.5
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		46.1	57.9	14.2	53.5	56.0
pH	----	E108/WP	0.10	pH units		7.50	6.94	5.83	7.17	7.50
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		79.4	209	56.0	120	113
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		8.4	1.3	<1.0	48.8	38.3
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.028	0.041	<0.010	0.038	0.032
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.55	72.1	<0.10	1.96	2.19
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0467	<0.0050	<0.0050	0.0695	0.0735
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0467	<0.0051	<0.0051	0.0695	0.0735
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0325	0.0289	0.0212	0.0580	0.0347
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.08	1.08	1.90	3.85	3.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0014	<0.0010	0.0018	0.0016
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0017	0.0011	0.0016	0.0012

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	SW-18	SW-17	SW-11	SW-08A
					Client sampling date / time	21-May-2023 08:15	21-May-2023 08:40	21-May-2023 09:40	21-May-2023 10:40	21-May-2023 11:30
						WP2309398-001	WP2309398-002	WP2309398-003	WP2309398-004	WP2309398-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0016	0.0011	0.0018	0.0016
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		24.7	39.3	37.8	39.3	36.4
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.419	0.152	0.679	1.75	0.807
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00022	0.00013	0.00013
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00206	0.00228	0.00351	0.00297	0.00322
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0108	0.0162	0.00993	0.0242	0.0144
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000024	<0.000020	0.000027	0.000078	0.000038
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000101	0.0000063	0.0000106	0.0000266	0.0000119
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.1	14.5	3.67	13.1	14.7
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000037	<0.000010	<0.000010	0.000178	0.000066
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00094	0.00053	0.00137	0.00370	0.00196
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00094	0.00053	0.00137	0.00370	0.00196
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00025	0.00027	0.00031	0.00096	0.00053
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00125	0.00070	0.00155	0.00552	0.00210
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.722	0.435	0.778	2.14	1.23
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000187	0.000105	0.000077	0.000629	0.000270
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0025	0.0021	0.0013	0.0040	0.0030
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.86	5.27	1.22	5.04	4.68
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0266	0.0675	0.0169	0.0626	0.0694
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000071	0.0000077	0.0000100	0.0000064
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000359	0.000314	0.000081	0.000345	0.000404
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00110	0.00137	0.00101	0.00416	0.00212
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.039	<0.030	0.095	0.042
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	0.095	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.29	1.20	0.285	1.50	1.02
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00209	0.00120	0.00163	0.00400	0.00241

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	SW-18	SW-17	SW-11	SW-08A
					Client sampling date / time	21-May-2023 08:15	21-May-2023 08:40	21-May-2023 09:40	21-May-2023 10:40	21-May-2023 11:30
						WP2309398-001	WP2309398-002	WP2309398-003	WP2309398-004	WP2309398-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000127	0.000136	0.000144	0.000213	0.000135
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.95	1.59	1.83	7.46	6.24
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.92	45.4	1.21	3.43	3.14
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0252	0.0399	0.0183	0.0336	0.0354
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.62	0.81	0.89	1.80	1.28
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000026	0.000012
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00010	<0.00010	0.00020	0.00042	0.00022
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0174	0.00191	0.00771	0.0817	0.0348
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00016
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000210	0.000077	0.000091	0.000218	0.000670
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00137	<0.00050	0.00206	0.00428	0.00216
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0039	0.0034	0.0063	0.0050
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00050	0.00047	0.00051	0.00149	0.00079
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0846	0.143	0.660	0.214	0.201
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00022	0.00012	0.00011
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00187	0.00227	0.00337	0.00278	0.00303
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00867	0.0152	0.00947	0.0110	0.00939
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	0.000035	0.000027	0.000022
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000090	0.0000154	0.0000072
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.8	14.7	3.56	11.9	14.0
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00037	0.00048	0.00125	0.00079	0.00068
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00125	0.00079	0.00068
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00024	0.00028	0.00026	0.00030

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	SW-18	SW-17	SW-11	SW-08A
					Client sampling date / time	21-May-2023 08:15	21-May-2023 08:40	21-May-2023 09:40	21-May-2023 10:40	21-May-2023 11:30
						WP2309398-001	WP2309398-002	WP2309398-003	WP2309398-004	WP2309398-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00091	0.00072	0.00153	0.00356	0.00144
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.307	0.324	0.693	0.287	0.509
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000073	0.000050	0.000070	0.000085	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0017	0.0017	<0.0010	0.0017	0.0017
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.41	5.12	1.13	4.57	4.27
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0176	0.0600	0.0163	0.0257	0.0559
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	0.0000050	0.0000076	0.0000066	0.0000054
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000343	0.000276	0.000075	0.000305	0.000367
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00069	0.00133	0.00093	0.00211	0.00133
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.13	1.18	0.285	1.21	0.925
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00136	0.00109	0.00169	0.00113	0.00120
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000120	0.000129	0.000111	0.000155	0.000106
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.23	1.51	1.71	3.82	4.80
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.69	43.2	1.08	3.43	3.09
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0245	0.0398	0.0184	0.0304	0.0336
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.52	0.81	0.90	1.52	1.30
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00023	0.00024	0.00016
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00261	0.00173	0.00677	0.00586	0.00450
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00015
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000188	0.000068	0.000090	0.000148	0.000645
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00062	<0.00050	0.00187	0.00125	0.00101
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0011	0.0036	0.0033	0.0018	0.0029
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00039	0.00048	0.00058	0.00106	0.00060
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-15	SW-18	SW-17	SW-11	SW-08A
					Client sampling date / time	21-May-2023 08:15	21-May-2023 08:40	21-May-2023 09:40	21-May-2023 10:40	21-May-2023 11:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309398-001	WP2309398-002	WP2309398-003	WP2309398-004	WP2309398-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	DUP-02	----	----	----	----
				Client sampling date / time	21-May-2023 08:40	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2309398-006	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.58	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	11.5	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.7	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	37.1	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	37.1	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	323	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	58.4	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	55.3	----	----	----	----
pH	----	E108/WP	0.10	pH units	6.98	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	209	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	<1.0	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	0.026	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	72.6	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0281	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	1.08	----	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0018	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0015	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	0.0016	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-02	----	----	----	----
					Client sampling date / time	21-May-2023 08:40	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309398-006	--------	--------	--------	--------
						Result	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		38.6	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.137	----	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00213	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0148	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000070	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		13.5	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00072	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00072	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00025	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00073	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.421	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000071	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		5.24	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0624	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000052	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000276	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00132	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.18	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00110	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000136	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.52	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-02	----	----	----	----
					Client sampling date / time	21-May-2023 08:40	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309398-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		45.5	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0395	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.76	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00183	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000081	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0036	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00040	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.146	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00214	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0158	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000056	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		15.0	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00041	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00022	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00061	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.309	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-02	----	----	----	----
					Client sampling date / time	21-May-2023 08:40	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309398-006	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0018	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		5.10	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0632	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000309	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00130	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.12	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00121	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000132	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.51	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		43.4	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0413	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.68	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00175	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000063	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0035	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00049	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2309398**	Page	: 1 of 27
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 25-May-2023 08:50
PO	: ----	Issue Date	: 05-Jun-2023 16:05
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-959519001	----	Zinc, dissolved	7440-66-6	E421	0.0013 mg/L B	0.001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Recoveries								
Total Metals	QC-MRG3-956071002	----	Magnesium, total	7439-95-4	E420	122 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Recoveries								
Dissolved Metals	Anonymous	Anonymous	Silver, dissolved	7440-22-4	E421	52.9 % MS-B	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
MS-B	*Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-02	E303	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-08A	E303	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-11	E303	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-15	E303	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-17	E303	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-18	E303	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.Cl-L	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.Cl-L	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-15	E235.Cl-L	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-17	E235.Cl-L	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-18	E235.Cl-L	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO3-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO3-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO3-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-15	E235.NO3-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-17	E235.NO3-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-18	E235.NO3-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO2-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO2-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO2-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-15	E235.NO2-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-17	E235.NO2-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-18	E235.NO2-L	21-May-2023	25-May-2023	----	----		25-May-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP-02	E235.SO4	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08A	E235.SO4	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-11	E235.SO4	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-15	E235.SO4	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-17	E235.SO4	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-18	E235.SO4	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-15	E372-U	21-May-2023	25-May-2023	----	----		26-May-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-18	E372-U	21-May-2023	25-May-2023	----	----		26-May-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-02	E372-U	21-May-2023	26-May-2023	----	----		29-May-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08A	E372-U	21-May-2023	26-May-2023	----	----		29-May-2023	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-11	E372-U	21-May-2023	26-May-2023	----	----		29-May-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-17	E372-U	21-May-2023	26-May-2023	----	----		29-May-2023	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E339-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E339-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E339-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E339-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E339-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-18	E339-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E333-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08A	E333-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E333-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-15	E333-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-17	E333-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-18	E333-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-02	E336-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08A	E336-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E336-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-15	E336-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-17	E336-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-18	E336-L	21-May-2023	30-May-2023	----	----		30-May-2023	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08A	E421.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-11	E421.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-15	E421.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-17	E421.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-18	E421.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) DUP-02	E421.Cr-L	21-May-2023	29-May-2023	----	----		29-May-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-15	E509	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-17	E509	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-18	E509	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DUP-02	E509	21-May-2023	29-May-2023	----	----		29-May-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08A	E509	21-May-2023	29-May-2023	----	----		29-May-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-11	E509	21-May-2023	29-May-2023	----	----		29-May-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-08A	E421	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-11	E421	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-15	E421	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-17	E421	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-18	E421	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP-02	E421	21-May-2023	29-May-2023	----	----		29-May-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-11	E421.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-15	E421.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-17	E421.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-18	E421.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.P-L	21-May-2023	29-May-2023	----	----		29-May-2023	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-02	EF001	21-May-2023	----	----	----		25-May-2023	----	----	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08A	EF001	21-May-2023	----	----	----		25-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	21-May-2023	----	----	----		25-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-15	EF001	21-May-2023	----	----	----		25-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-17	EF001	21-May-2023	----	----	----		25-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-18	EF001	21-May-2023	----	----	----		25-May-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-02	E358-L	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08A	E358-L	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-11	E358-L	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-15	E358-L	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-17	E358-L	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-18	E358-L	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP-02	E283	21-May-2023	29-May-2023	----	----		02-Jun-2023	14 days	12 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08A	E283	21-May-2023	29-May-2023	----	----		02-Jun-2023	14 days	12 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-11	E283	21-May-2023	29-May-2023	----	----		02-Jun-2023	14 days	12 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-15	E283	21-May-2023	29-May-2023	----	----		02-Jun-2023	14 days	12 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-17	E283	21-May-2023	29-May-2023	----	----		02-Jun-2023	14 days	12 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-18	E283	21-May-2023	29-May-2023	----	----		02-Jun-2023	14 days	12 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DUP-02	E290	21-May-2023	25-May-2023	----	----		25-May-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08A	E290	21-May-2023	25-May-2023	----	----		25-May-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-11	E290	21-May-2023	25-May-2023	----	----		25-May-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-15	E290	21-May-2023	25-May-2023	----	----		25-May-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-17	E290	21-May-2023	25-May-2023	----	----		25-May-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-18	E290	21-May-2023	25-May-2023	----	----		25-May-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE DUP-02	E100	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08A	E100	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-11	E100	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-15	E100	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-17	E100	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-18	E100	21-May-2023	25-May-2023	----	----		25-May-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE DUP-02	E108	21-May-2023	25-May-2023	----	----		25-May-2023	0.25 hrs	0.26 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08A	E108	21-May-2023	25-May-2023	----	----		25-May-2023	0.25 hrs	0.26 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-11	E108	21-May-2023	25-May-2023	----	----		25-May-2023	0.25 hrs	0.26 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-15	E108	21-May-2023	25-May-2023	----	----		25-May-2023	0.25 hrs	0.26 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-17	E108	21-May-2023	25-May-2023	----	----		25-May-2023	0.25 hrs	0.26 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-18	E108	21-May-2023	25-May-2023	----	----		25-May-2023	0.25 hrs	0.26 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DUP-02	E162-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08A	E162-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-11	E162-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-15	E162-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-17	E162-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-18	E162-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE DUP-02	E160-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-08A	E160-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-11	E160-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-15	E160-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-17	E160-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-18	E160-L	21-May-2023	----	----	----		26-May-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-15	E420.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-17	E420.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-18	E420.Cr-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-15	E508	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-17	E508	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-18	E508	21-May-2023	26-May-2023	----	----		26-May-2023	28 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-15	E420	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-17	E420	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-18	E420	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-15	E420.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-17	E420.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-18	E420.P-L	21-May-2023	26-May-2023	----	----		26-May-2023	180 days	5 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	959062	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	954384	2	39	5.1	5.0	✓
Ammonia in Water by Colour	E303	954462	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	954687	1	12	8.3	5.0	✓
Conductivity in Water	E100	954386	2	17	11.7	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	956106	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	956445	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	956105	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	955940	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	956107	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	962205	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	954688	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	954689	1	11	9.0	5.0	✓
pH by Meter	E108	954385	2	22	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	954690	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	954959	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	956072	0	6	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	962203	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	956440	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	956071	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	955814	2	24	8.3	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	956073	0	8	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	959395	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	962204	1	17	5.8	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	959062	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	954384	2	39	5.1	5.0	✓
Ammonia in Water by Colour	E303	954462	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	954687	1	12	8.3	5.0	✓
Conductivity in Water	E100	954386	2	17	11.7	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	956106	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	956445	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	956105	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	955940	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	956107	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	962205	1	11	9.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	954688	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	954689	1	11	9.0	5.0	✓
pH by Meter	E108	954385	2	22	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	954690	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	954959	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	956072	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	962203	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	956440	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	956071	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	955814	2	24	8.3	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	956073	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	959395	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	962204	1	17	5.8	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	959062	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	954384	2	39	5.1	5.0	✓
Ammonia in Water by Colour	E303	954462	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	954687	1	12	8.3	5.0	✓
Conductivity in Water	E100	954386	2	17	11.7	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	956106	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	956445	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	956105	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	955940	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	956107	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	962205	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	954688	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	954689	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	954690	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	954959	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	956072	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	962203	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	956440	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	956071	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	955814	2	24	8.3	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	956073	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	959395	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	962204	1	17	5.8	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	954462	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	954687	1	12	8.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	956106	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	956445	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	956105	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	955940	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	956107	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	962205	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	954688	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	954689	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	954690	1	14	7.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	956072	0	6	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	962203	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	956440	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	956071	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	955814	2	24	8.3	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	956073	0	8	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	962204	1	17	5.8	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2309398**	Page	: 1 of 25
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 25-May-2023 08:50
PO	: ----	Date Analysis Commenced	: 25-May-2023
C-O-C number	: ----	Issue Date	: 05-Jun-2023 16:05
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Matthew Bouch		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 954384)											
WP2309375-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	135	134	0.371%	20%	----
Physical Tests (QC Lot: 954385)											
WP2309398-001	SW-15	pH	----	E108	0.10	pH units	7.50	7.46	0.535%	4%	----
Physical Tests (QC Lot: 954386)											
WP2309398-001	SW-15	Conductivity	----	E100	1.0	µS/cm	86.8	86.9	0.115%	10%	----
Physical Tests (QC Lot: 954433)											
WP2309398-005	SW-08A	pH	----	E108	0.10	pH units	7.50	7.53	0.399%	4%	----
Physical Tests (QC Lot: 954434)											
WP2309398-005	SW-08A	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	42.6	42.4	0.470%	20%	----
Physical Tests (QC Lot: 954435)											
WP2309398-005	SW-08A	Conductivity	----	E100	1.0	µS/cm	106	106	0.0941%	10%	----
Physical Tests (QC Lot: 954959)											
WP2309276-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	153	155	1.30%	20%	----
Physical Tests (QC Lot: 959062)											
WP2309363-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	15.1	15.5	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 959395)											
WP2309370-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 954462)											
WP2309363-004	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.098	0.101	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 954687)											
WP2309363-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.80	0.80	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 954688)											
WP2309363-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.133	0.134	0.611%	20%	----
Anions and Nutrients (QC Lot: 954689)											
WP2309363-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0034	0.0034	0.00005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 954690)											
WP2309363-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	36.9	37.0	0.296%	20%	----
Anions and Nutrients (QC Lot: 955814)											
WP2309398-001	SW-15	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0325	0.0318	2.18%	20%	----
Anions and Nutrients (QC Lot: 959021)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 959021) - continued											
WP2309398-003	SW-17	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0212	0.0210	1.28%	20%	----
Cyanides (QC Lot: 962203)											
WP2309398-001	SW-15	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 962204)											
WP2309398-001	SW-15	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 962205)											
WP2309398-001	SW-15	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 955940)											
WP2308379-006	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	3.78	3.62	0.16	Diff <2x LOR	----
Total Metals (QC Lot: 956071)											
WP2309141-008	Anonymous	Aluminum, total	7429-90-5	E420	0.300	mg/L	442	442	0.0770%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00383	0.00398	3.87%	20%	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.127	0.116	8.85%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	1.74	1.70	2.43%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.00279	0.00272	2.53%	20%	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	0.000209	0.000215	0.000006	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.479	0.463	3.46%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.000524	0.000523	0.260%	20%	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	747	768	2.78%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.00725	0.00768	5.80%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	1.56	1.46	7.12%	20%	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.207	0.203	2.00%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.127	0.112	12.3%	20%	----
		Iron, total	7439-89-6	E420	1.00	mg/L	528	542	2.70%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.0234	0.0201	15.1%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.874	0.866	0.999%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	170	155	9.26%	20%	----
		Manganese, total	7439-96-5	E420	0.0100	mg/L	16.1	16.5	2.06%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.0455	0.0458	0.712%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.673	0.702	4.24%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	5.02	4.61	8.57%	20%	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	32.3	30.5	5.86%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0758	0.0708	6.91%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 956071) - continued											
WP2309141-008	Anonymous	Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000326	0.000252	0.000074	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	10.0	mg/L	275	270	1.79%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000151	0.000138	8.88%	20%	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	240	236	1.58%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	1.56	1.57	0.0826%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	74.6	73.6	1.38%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000464	0.000444	4.54%	20%	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.0116	0.0111	4.83%	20%	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00492	0.00454	8.08%	20%	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.864	0.846	2.04%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00547	0.00509	7.16%	20%	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00458	0.00384	17.4%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.680	0.618	9.55%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.395	0.386	2.12%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00279	0.00289	3.56%	20%	----
Total Metals (QC Lot: 956440)											
WP2309363-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 956105)											
WP2309141-011	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0085	0.0087	0.0002	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00163	0.00174	6.30%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.0203	0.0212	4.25%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0848	0.0870	2.55%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000029	0.000031	0.000002	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.130	0.143	9.63%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000261	0.0000248	0.0000014	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	230	264	13.5%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000478	0.000530	10.3%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.0161	0.0161	0.0281%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00212	0.00210	0.952%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.344	0.351	1.97%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000156	0.000150	0.000005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 956105) - continued											
WP2309141-011	Anonymous	Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0681	0.0635	7.00%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	91.6	101	9.55%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	2.84	2.88	1.17%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00815	0.00902	10.2%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.0107	0.0112	4.90%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	15.2	15.5	2.47%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0110	0.0110	0.370%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000601	0.000585	2.71%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	14.6	15.1	3.76%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.000017	0.000015	0.000002	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	397	396	0.0149%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	1.44	1.46	0.843%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000064	0.000062	0.000002	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00033	0.00037	0.00004	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00052	0.00041	0.00011	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00012	0.00012	0.0000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.0380	0.0383	0.875%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00119	0.00124	0.00004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0036	0.0040	0.0004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00152	0.00157	0.00005	Diff <2x LOR	----
Dissolved Metals (QC Lot: 956445)											
WP2309157-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000056	<0.0000050	0.0000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 959519)											
WP2309398-006	DUP-02	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.146	0.149	1.64%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00214	0.00225	5.06%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0158	0.0166	4.68%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000056	<0.0000050	0.0000006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 959519) - continued											
WP2309398-006	DUP-02	Calcium, dissolved	7440-70-2	E421	0.050	mg/L	15.0	15.1	0.928%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00022	0.00024	0.00002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00061	0.00066	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.309	0.315	1.76%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	0.000050	0.0000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0018	0.0018	0.000008	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	5.10	5.12	0.255%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0632	0.0620	1.93%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000309	0.000299	0.000010	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00130	0.00134	0.00004	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.12	1.20	6.49%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00121	0.00119	0.00002	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000132	0.000143	0.000011	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.51	1.53	1.04%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	43.4	43.7	0.646%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0413	0.0401	2.94%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.68	0.70	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00175	0.00184	0.00009	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000063	0.000064	0.0000007	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0035	0.0038	0.0004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00049	0.00049	0.000002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 959520)											
WP2309398-006	DUP-02	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00041	0.00044	0.00003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 959521)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 959521) - continued											
WP2309398-006	DUP-02	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 959786)											
WP2309398-004	SW-11	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000066	0.0000072	0.0000006	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 954384)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 954386)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 954434)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 954435)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 954959)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 959062)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 959395)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 954462)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 954687)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 954688)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 954689)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 954690)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 955814)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 959021)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 962203)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 962204)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 962205)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 962205) - continued						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 955940)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 956071)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 956071) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 956072)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 956073)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 956440)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 956105)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 956105) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 956106)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 956107)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 956445)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 959519)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 959519) - continued						
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	# 0.0013	B
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 959520)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 959521)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 959786)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 959786) - continued						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 954384)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 954385)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 954386)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 954433)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 954434)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.7	85.0	115	----
Physical Tests (QCLot: 954435)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 954959)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	91.0	85.0	115	----
Physical Tests (QCLot: 959062)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	112	85.0	115	----
Physical Tests (QCLot: 959395)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	99.9	85.0	115	----
Anions and Nutrients (QCLot: 954462)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 954687)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 954688)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 954689)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 954690)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 955814)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.1	80.0	120	----
Anions and Nutrients (QCLot: 959021)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	97.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 962203)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	95.8	80.0	120	----
Cyanides (QCLot: 962204)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	103	80.0	120	----
Cyanides (QCLot: 962205)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	105	80.0	120	----
Organic / Inorganic Carbon (QCLot: 955940)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	108	80.0	120	----
Total Metals (QCLot: 956071)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	114	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	95.2	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	92.7	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.9	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	111	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	87.7	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	106	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	# 122	80.0	120	MES
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	118	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.0	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	119	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	87.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	116	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 956071) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	118	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	108	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.6	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	108	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Total Metals (QCLot: 956072)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Total Metals (QCLot: 956073)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	118	80.0	120	----
Total Metals (QCLot: 956440)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 956105)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	106	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.7	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.0	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	109	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.7	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	108	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	90.3	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 956105) - continued									
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.5	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	113	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.7	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	96.6	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	87.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	95.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	94.1	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	96.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	94.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.5	80.0	120	----
Dissolved Metals (QCLot: 956106)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	113	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 959519)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	108	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.7	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 959519) - continued									
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	113	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.7	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.8	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	96.8	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	109	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.6	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	106	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	84.5	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	90.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.2	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	88.0	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.2	80.0	120	----
Dissolved Metals (QCLot: 959520)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	105	80.0	120	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 954462)										
WP2309363-004	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.187 mg/L	0.25 mg/L	75.0	75.0	125	----
Anions and Nutrients (QCLot: 954687)										
WP2309363-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	108 mg/L	100 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 954688)										
WP2309363-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.72 mg/L	2.5 mg/L	109	75.0	125	----
Anions and Nutrients (QCLot: 954689)										
WP2309363-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.527 mg/L	0.5 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 954690)										
WP2309363-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	109 mg/L	100 mg/L	109	75.0	125	----
Anions and Nutrients (QCLot: 955814)										
WP2309398-002	SW-18	Phosphorus, total	7723-14-0	E372-U	0.243 mg/L	0.25 mg/L	97.1	70.0	130	----
Anions and Nutrients (QCLot: 959021)										
WP2309398-004	SW-11	Phosphorus, total	7723-14-0	E372-U	0.251 mg/L	0.25 mg/L	100	70.0	130	----
Cyanides (QCLot: 962203)										
WP2309398-001	SW-15	Cyanide, strong acid dissociable (Total)	----	E333-L	0.234 mg/L	0.25 mg/L	93.4	75.0	125	----
Cyanides (QCLot: 962204)										
WP2309398-001	SW-15	Cyanide, weak acid dissociable	----	E336-L	0.135 mg/L	0.125 mg/L	108	75.0	125	----
Cyanides (QCLot: 962205)										
WP2309398-001	SW-15	Cyanide, free	----	E339-L	0.143 mg/L	0.125 mg/L	114	75.0	125	----
Organic / Inorganic Carbon (QCLot: 955940)										
WP2308379-007	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.10 mg/L	5 mg/L	102	70.0	130	----
Total Metals (QCLot: 956071)										
WP2309141-008	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, total	7440-38-2	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0477 mg/L	0.04 mg/L	119	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00867 mg/L	0.01 mg/L	86.7	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 956071) - continued										
WP2309141-008	Anonymous	Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00355 mg/L	0.004 mg/L	88.8	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, total	7440-47-3	E420	ND mg/L	0.04 mg/L	ND	70.0	130	----
		Cobalt, total	7440-48-4	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Lead, total	7439-92-1	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Lithium, total	7439-93-2	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	ND mg/L	0.04 mg/L	ND	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.2 mg/L	10 mg/L	102	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00371 mg/L	0.004 mg/L	92.8	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0382 mg/L	0.04 mg/L	95.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00359 mg/L	0.004 mg/L	89.7	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Tin, total	7440-31-5	E420	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Titanium, total	7440-32-6	E420	ND mg/L	0.04 mg/L	ND	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Uranium, total	7440-61-1	E420	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, total	7440-62-2	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	0.314 mg/L	0.4 mg/L	78.6	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0458 mg/L	0.04 mg/L	114	70.0	130	----
Total Metals (QCLot: 956440)										
WP2309363-003	Anonymous	Mercury, total	7439-97-6	E508	0.0000984 mg/L	0.0001 mg/L	98.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 956105)										
WP2309141-011	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.239 mg/L	0.2 mg/L	119	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0217 mg/L	0.02 mg/L	109	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0456 mg/L	0.04 mg/L	114	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00954 mg/L	0.01 mg/L	95.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00380 mg/L	0.004 mg/L	95.0	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0450 mg/L	0.04 mg/L	112	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0185 mg/L	0.02 mg/L	92.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.07 mg/L	2 mg/L	104	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0994 mg/L	0.1 mg/L	99.4	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0244 mg/L	0.02 mg/L	122	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	12.9 mg/L	10 mg/L	129	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0454 mg/L	0.04 mg/L	114	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00212 mg/L	0.004 mg/L	52.9	70.0	130	MS-B
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00392 mg/L	0.004 mg/L	98.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0494 mg/L	0.04 mg/L	123	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 956105) - continued										
WP2309141-011	Anonymous	Vanadium, dissolved	7440-62-2	E421	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.378 mg/L	0.4 mg/L	94.6	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0473 mg/L	0.04 mg/L	118	70.0	130	----
Dissolved Metals (QCLot: 956445)										
WP2309157-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000103 mg/L	0.0001 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 959519)										
WP2309398-006	DUP-02	Aluminum, dissolved	7429-90-5	E421	0.207 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0223 mg/L	0.02 mg/L	111	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0450 mg/L	0.04 mg/L	112	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00894 mg/L	0.01 mg/L	89.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00424 mg/L	0.004 mg/L	106	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	12.0 mg/L	10 mg/L	120	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.55 mg/L	4 mg/L	114	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00428 mg/L	0.004 mg/L	107	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	22.1 mg/L	20 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 959519) - continued										
WP2309398-006	DUP-02	Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00345 mg/L	0.004 mg/L	86.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0184 mg/L	0.02 mg/L	92.1	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0461 mg/L	0.04 mg/L	115	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00386 mg/L	0.004 mg/L	96.6	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.428 mg/L	0.4 mg/L	107	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
Dissolved Metals (QCLot: 959520)										
WP2309398-006	DUP-02	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 959521)										
WP2309398-006	DUP-02	Phosphorus, dissolved	7723-14-0	E421.P-L	12.0 mg/L	10 mg/L	120	70.0	130	----
Dissolved Metals (QCLot: 959786)										
WP2309398-005	SW-08A	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Qualifiers

Qualifier	Description
MS-B	*Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.*

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
	SW-15	21-May-23	8:15	Water	9	X			6.85	14.28	0.08 mS
	SW-18	21-May-23	8:40	Water	9	X			6.58	11.53	0.290 mS
	SW-17	21-May-23	9:40	Water	9	X			5.8	11.62	0.027 mS
	SW-11	21-May-23	10:40	Water	9	X			6.68	11.32	0.091 mS
	SW-08a	21-May-23	11:30	Water	9	X			7.11	9.34	0.098 mS
	DUP-02	21-May-23	8:40	Water	9	X			6.58	11.53	0.290 mS

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
[signature]	May 23 2023	9:00	[signature]	May 25/23	8:52		

14.40C

Environmental Division
Winnipeg
Work Order Reference
WP2309398

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2309710**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 29-May-2023 09:30
PO	: ----	Date Analysis Commenced	: 29-May-2023
C-O-C number	: ----	Issue Date	: 06-Jun-2023 12:03
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Justine Bergen		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	----	----	----	----
					Client sampling date / time	25-May-2023	----	----	----	----
						WP2309710-001	--------	--------	--------	--------
						Result	----	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.23	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		12.9	----	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.0	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		31.4	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		31.4	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		68.4	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		32.7	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		32.4	----	----	----	----
pH	----	E108/WP	0.10	pH units		7.52	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		48.7	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.9	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.014	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.22	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0167	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.68	----	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	----	----	----	----
					Client sampling date / time	25-May-2023	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309710-001	--------	--------	--------	--------
						Result	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		9.23	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0104	----	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00170	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00671	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.14	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.136	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.33	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00968	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000091	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.702	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00176	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.31	----	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	----	----	----	----
					Client sampling date / time	25-May-2023	----	----	----	----
						WP2309710-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.13	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0199	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000038	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0030	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00149	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00590	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.33	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.064	----	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0011	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	----	----	----	----
					Client sampling date / time	25-May-2023	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309710-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.28	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00038	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000105	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.739	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00172	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000065	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.37	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.23	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0212	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000034	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2309710**	Page	: 1 of 13
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 29-May-2023 09:30
PO	: ----	Issue Date	: 06-Jun-2023 12:03
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-GL	E303	25-May-2023	30-May-2023	----	----		30-May-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL	E235.Cl-L	25-May-2023	29-May-2023	----	----		29-May-2023	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL	E235.NO3-L	25-May-2023	29-May-2023	----	----		29-May-2023	3 days	5 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL	E235.NO2-L	25-May-2023	29-May-2023	----	----		29-May-2023	3 days	5 days	✗ EHTR-FM
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL	E235.SO4	25-May-2023	29-May-2023	----	----		29-May-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	25-May-2023	29-May-2023	----	----		30-May-2023	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E339-L	25-May-2023	31-May-2023	----	----		31-May-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E333-L	25-May-2023	31-May-2023	----	----		31-May-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E336-L	25-May-2023	31-May-2023	----	----		31-May-2023	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	25-May-2023	31-May-2023	----	----		31-May-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	25-May-2023	31-May-2023	----	----		31-May-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	25-May-2023	31-May-2023	----	----		31-May-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	25-May-2023	31-May-2023	----	----		31-May-2023	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL	EF001	25-May-2023	----	----	----		29-May-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	25-May-2023	29-May-2023	----	----		29-May-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	25-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL	E290	25-May-2023	29-May-2023	----	----		29-May-2023	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL	E100	25-May-2023	29-May-2023	----	----		29-May-2023	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE SW-GL	E108	25-May-2023	29-May-2023	----	----		29-May-2023	0.25 hrs	0.26 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL	E162-L	25-May-2023	----	----	----		30-May-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	25-May-2023	----	----	----		30-May-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	25-May-2023	30-May-2023	----	----		30-May-2023	180 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	25-May-2023	31-May-2023	----	----		31-May-2023	28 days	7 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	25-May-2023	30-May-2023	----	----		30-May-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	25-May-2023	30-May-2023	----	----		30-May-2023	180 days	5 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	959714	1	18	5.5	5.0	✓
Ammonia in Water by Colour	E303	961296	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	959664	0	1	0.0	5.0	×
Conductivity in Water	E100	959715	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	963957	0	1	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	964038	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	963956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	959941	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	963958	0	1	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	964936	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	959662	0	1	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	959663	0	1	0.0	5.0	×
pH by Meter	E108	959716	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	959657	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	961038	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	961557	1	1	100.0	5.0	✓
Total Cyanide (Low Level)	E333-L	964937	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	964023	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	961559	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	960036	1	4	25.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	961558	1	19	5.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	961037	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	964935	1	18	5.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	959714	1	18	5.5	5.0	✓
Ammonia in Water by Colour	E303	961296	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	959664	1	1	100.0	5.0	✓
Conductivity in Water	E100	959715	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	963957	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964038	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	963956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	959941	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	963958	1	1	100.0	5.0	✓
Free Cyanide (Low Level)	E339-L	964936	1	15	6.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	959662	1	1	100.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	959663	1	1	100.0	5.0	✓
pH by Meter	E108	959716	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	959657	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	961038	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	961557	1	1	100.0	5.0	✓
Total Cyanide (Low Level)	E333-L	964937	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	964023	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	961559	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	960036	1	4	25.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	961558	1	19	5.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	961037	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	964935	1	18	5.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	959714	1	18	5.5	5.0	✓
Ammonia in Water by Colour	E303	961296	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	959664	1	1	100.0	5.0	✓
Conductivity in Water	E100	959715	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	963957	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964038	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	963956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	959941	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	963958	1	1	100.0	5.0	✓
Free Cyanide (Low Level)	E339-L	964936	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	959662	1	1	100.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	959663	1	1	100.0	5.0	✓
Sulfate in Water by IC	E235.SO4	959657	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	961038	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	961557	1	1	100.0	5.0	✓
Total Cyanide (Low Level)	E333-L	964937	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	964023	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	961559	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	960036	1	4	25.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	961558	1	19	5.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	961037	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	964935	1	18	5.5	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	961296	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	959664	0	1	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	963957	0	1	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	964038	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	963956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	959941	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	963958	0	1	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	964936	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	959662	0	1	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	959663	0	1	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	959657	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	961557	1	1	100.0	5.0	✓
Total Cyanide (Low Level)	E333-L	964937	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	964023	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	961559	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	960036	1	4	25.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	961558	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	964935	1	18	5.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2309710**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 29-May-2023 09:30
PO	: ----	Date Analysis Commenced	: 29-May-2023
C-O-C number	: ----	Issue Date	: 06-Jun-2023 12:03
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Justine Bergen		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 959714)											
WP2309700-007	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	591	596	0.876%	20%	----
Physical Tests (QC Lot: 959715)											
WP2309703-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	23.5	22.8	3.02%	10%	----
Physical Tests (QC Lot: 959716)											
WP2309704-001	Anonymous	pH	----	E108	0.10	pH units	7.42	7.25	2.32%	4%	----
Physical Tests (QC Lot: 961037)											
WP2309710-001	SW-GL	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.9	1.1	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 961038)											
WP2309549-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	249	244	2.03%	20%	----
Physical Tests (QC Lot: 966375)											
WP2309710-001	SW-GL	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.0	2.1	0.04	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 959657)											
WP2309703-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	1.11	1.09	0.02	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 960036)											
WP2309709-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.149	0.150	0.621%	20%	----
Anions and Nutrients (QC Lot: 961296)											
WP2309700-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.026	0.028	0.002	Diff <2x LOR	----
Cyanides (QC Lot: 964935)											
VA23B1764-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0061	0.0057	0.0004	Diff <2x LOR	----
Cyanides (QC Lot: 964936)											
VA23B1764-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	0.0052	0.0050	0.0001	Diff <2x LOR	----
Cyanides (QC Lot: 964937)											
VA23B1764-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0127	0.0125	1.51%	20%	----
Organic / Inorganic Carbon (QC Lot: 959941)											
WP2309399-007	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	12.0	11.9	1.05%	20%	----
Total Metals (QC Lot: 961557)											
WP2309710-001	SW-GL	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	<0.00010	0.00011	0.000009	Diff <2x LOR	----
Total Metals (QC Lot: 961558)											
WP2309710-001	SW-GL	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 961559)											
WP2309710-001	SW-GL	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0104	0.0094	0.0011	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00170	0.00179	4.97%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00671	0.00678	1.02%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.14	9.36	2.45%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	0.00069	0.00019	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.136	0.138	1.54%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	0.0010	0.00006	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.33	2.25	3.64%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00968	0.00938	3.13%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000091	0.000132	0.000041	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.702	0.748	6.40%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00176	0.00175	0.00001	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	0.000052	0.000002	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.31	1.32	0.206%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.13	1.09	3.66%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0199	0.0200	0.514%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 961559) - continued											
WP2309710-001	SW-GL	Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000038	0.000040	0.000002	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 964023)											
WP2309710-001	SW-GL	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 963956)											
WP2309700-009	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0084	0.0079	0.0005	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00153	0.00154	0.640%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0387	0.0384	0.742%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.193	0.190	1.62%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000467	0.0000486	0.0000019	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	76.9	76.9	0.0352%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00047	0.00048	0.000006	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.0114	0.0111	2.10%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.013	0.011	0.002	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000388	0.000385	0.000003	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0643	0.0632	1.85%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	97.3	98.4	1.12%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.578	0.555	4.16%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.0113	0.0115	2.35%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00221	0.00216	0.00005	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	3.87	3.87	0.0377%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00063	0.00055	0.00008	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000133	0.000125	0.000008	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8.29	8.42	1.59%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.000022	0.000020	0.000001	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 963956) - continued											
WP2309700-009	Anonymous	Sodium, dissolved	7440-23-5	E421	0.050	mg/L	222	218	1.70%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.397	0.400	0.887%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	61.7	65.3	5.67%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00697	0.00702	0.819%	20%	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00069	0.00088	0.00018	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.145	0.147	1.39%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00203	0.00204	0.00001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0089	0.0082	0.0007	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00216	0.00217	0.000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 964038)											
WP2309703-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 959714)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 959715)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 961037)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 961038)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 966375)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 959657)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 959662)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 959663)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 959664)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 960036)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 961296)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Cyanides (QCLot: 964935)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 964936)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 964937)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 959941)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 961557)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 961558)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 961558) - continued						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 961559)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 961559) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 964023)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 963956)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 963956) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 963957)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 963958)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 964038)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 959714)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 959715)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 959716)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 961037)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	104	85.0	115	----
Physical Tests (QCLot: 961038)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.1	85.0	115	----
Physical Tests (QCLot: 966375)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	110	85.0	115	----
Anions and Nutrients (QCLot: 959657)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 959662)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 959663)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 959664)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.5	90.0	110	----
Anions and Nutrients (QCLot: 960036)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.1	80.0	120	----
Anions and Nutrients (QCLot: 961296)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	101	85.0	115	----
Cyanides (QCLot: 964935)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	97.8	80.0	120	----
Cyanides (QCLot: 964936)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	99.5	80.0	120	----
Cyanides (QCLot: 964937)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	93.2	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 959941)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	93.1	80.0	120	----
Total Metals (QCLot: 961557)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Total Metals (QCLot: 961558)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Total Metals (QCLot: 961559)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.4	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	95.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	108	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.9	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.2	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	91.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	95.0	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	95.0	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.7	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	95.5	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	104	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	93.3	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	85.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 961559) - continued									
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.4	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.7	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	91.6	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Total Metals (QCLot: 964023)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	97.8	80.0	120	----
Dissolved Metals (QCLot: 963956)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.5	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	99.1	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.8	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.8	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.5	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.9	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	99.8	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	94.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 963956) - continued									
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	96.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	110	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	93.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	98.4	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.2	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.9	80.0	120	----
Dissolved Metals (QCLot: 963957)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	98.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 959657)										
WP2309703-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 960036)										
WP2309709-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.236 mg/L	0.25 mg/L	94.4	70.0	130	----
Anions and Nutrients (QCLot: 961296)										
WP2309700-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.220 mg/L	0.25 mg/L	87.8	75.0	125	----
Cyanides (QCLot: 964935)										
VA23B1764-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.135 mg/L	0.125 mg/L	108	75.0	125	----
Cyanides (QCLot: 964936)										
VA23B1764-001	Anonymous	Cyanide, free	----	E339-L	0.141 mg/L	0.125 mg/L	113	75.0	125	----
Cyanides (QCLot: 964937)										
VA23B1764-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.217 mg/L	0.25 mg/L	86.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 959941)										
WP2309552-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 961557)										
WP2309710-001	SW-GL	Chromium, total	7440-47-3	E420.Cr-L	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
Total Metals (QCLot: 961558)										
WP2309710-001	SW-GL	Phosphorus, total	7723-14-0	E420.P-L	9.66 mg/L	10 mg/L	96.6	70.0	130	----
Total Metals (QCLot: 961559)										
WP2309710-001	SW-GL	Aluminum, total	7429-90-5	E420	0.194 mg/L	0.2 mg/L	97.0	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0192 mg/L	0.02 mg/L	96.1	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0381 mg/L	0.04 mg/L	95.2	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Boron, total	7440-42-8	E420	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00397 mg/L	0.004 mg/L	99.3	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00954 mg/L	0.01 mg/L	95.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0392 mg/L	0.04 mg/L	98.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 961559) - continued										
WP2309710-001	SW-GL	Cobalt, total	7440-48-4	E420	0.0191 mg/L	0.02 mg/L	95.3	70.0	130	----
		Copper, total	7440-50-8	E420	0.0191 mg/L	0.02 mg/L	95.7	70.0	130	----
		Iron, total	7439-89-6	E420	1.91 mg/L	2 mg/L	95.4	70.0	130	----
		Lead, total	7439-92-1	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0966 mg/L	0.1 mg/L	96.6	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0186 mg/L	0.02 mg/L	93.3	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0386 mg/L	0.04 mg/L	96.4	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.66 mg/L	10 mg/L	96.6	70.0	130	----
		Potassium, total	7440-09-7	E420	3.76 mg/L	4 mg/L	94.1	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0392 mg/L	0.04 mg/L	98.0	70.0	130	----
		Silicon, total	7440-21-3	E420	9.83 mg/L	10 mg/L	98.3	70.0	130	----
		Silver, total	7440-22-4	E420	0.00394 mg/L	0.004 mg/L	98.5	70.0	130	----
		Sodium, total	7440-23-5	E420	1.86 mg/L	2 mg/L	92.8	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Sulfur, total	7704-34-9	E420	19.2 mg/L	20 mg/L	95.8	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, total	7440-31-5	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0973 mg/L	0.1 mg/L	97.3	70.0	130	----
		Zinc, total	7440-66-6	E420	0.371 mg/L	0.4 mg/L	92.8	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Total Metals (QCLot: 964023)										
WP2309764-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000990 mg/L	0.0001 mg/L	99.0	70.0	130	----
Dissolved Metals (QCLot: 963956)										
WP2309700-009	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.209 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0240 mg/L	0.02 mg/L	120	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 963956) - continued										
WP2309700-009	Anonymous	Beryllium, dissolved	7440-41-7	E421	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00896 mg/L	0.01 mg/L	89.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00384 mg/L	0.004 mg/L	96.0	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0191 mg/L	0.02 mg/L	95.3	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0172 mg/L	0.02 mg/L	86.0	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.97 mg/L	2 mg/L	98.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0921 mg/L	0.1 mg/L	92.1	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0231 mg/L	0.02 mg/L	115	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0362 mg/L	0.04 mg/L	90.4	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.24 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.69 mg/L	10 mg/L	96.9	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00322 mg/L	0.004 mg/L	80.6	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00371 mg/L	0.004 mg/L	92.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0439 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.369 mg/L	0.4 mg/L	92.3	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0475 mg/L	0.04 mg/L	119	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 964038)										
WP2309703-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000986 mg/L	0.0001 mg/L	98.6	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2309710

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) Reques
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minim
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minim
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minim
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minim
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on w holidays and for non-routine tes
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:**	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
	SW-GL	25-May-23		Water	9	X			7.23	12.91	0.062

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: May 25/2023	Time:	Received by: SW	Date: MAY 29 2023	Time: 9:30	Received by:	Time:

91.5°

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2309859**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 30-May-2023 09:00
PO	: ----	Date Analysis Commenced	: 30-May-2023
C-O-C number	: ----	Issue Date	: 06-Jun-2023 16:20
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jenna Friesen	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PW-01	PW-02	PW-03	PW-04	PW-05
					Client sampling date / time	26-May-2023 08:45	26-May-2023 09:00	26-May-2023 09:15	26-May-2023 09:40	26-May-2023 10:00
						WP2309859-001	WP2309859-002	WP2309859-003	WP2309859-004	WP2309859-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.58	7.62	7.54	7.80	7.76
Temperature, field	----	EF001/WP	0.10	°C		13.7	15.3	13.0	11.4	11.4
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.9	2.2	<2.0	2.1	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		29.3	38.0	34.1	34.5	35.3
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		29.3	38.0	34.1	34.5	35.3
Conductivity	----	E100/WP	1.0	µS/cm		77.2	85.0	82.5	83.6	85.8
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		34.2	40.2	37.1	36.6	37.6
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		36.8	41.7	38.2	38.2	38.4
pH	----	E108/WP	0.10	pH units		7.45	7.68	7.64	7.65	7.69
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		58.7	64.7	62.0	56.0	54.3
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.0	5.5	2.5	2.3	2.9
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.010	0.019	<0.010	0.015	0.014
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.00	0.46	1.20	1.38	1.44
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0098	0.0142	0.0145	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0098	0.0142	0.0145	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0216	0.0207	0.0168	0.0192	0.0172
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		3.87	1.62	2.74	2.94	3.13
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0013	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PW-01	PW-02	PW-03	PW-04	PW-05
					Client sampling date / time	26-May-2023 08:45	26-May-2023 09:00	26-May-2023 09:15	26-May-2023 09:40	26-May-2023 10:00
						WP2309859-001	WP2309859-002	WP2309859-003	WP2309859-004	WP2309859-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		14.1	15.2	13.4	12.2	11.4
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.194	0.244	0.137	0.0955	0.122
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00023	0.00011	0.00016	0.00017	0.00018
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00513	0.00103	0.00302	0.00344	0.00390
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00861	0.0119	0.00890	0.00860	0.00867
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000073	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.96	11.8	10.7	10.6	10.7
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000021	0.000033	0.000014	<0.000010	0.000014
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00062	0.00059	0.00029	0.00098	0.00029
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00062	0.00059	<0.00050	0.00098	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00014	0.00011	<0.00010	<0.00010	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00143	0.00124	0.00116	0.00119	0.00123
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.272	0.299	0.181	0.138	0.145
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000105	0.000108	0.000066	0.000054	0.000058
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0016	0.0016	0.0012	0.0012	0.0013
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.90	2.98	2.78	2.86	2.84
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0113	0.00787	0.00964	0.0150	0.00942
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000198	0.000205	0.000187	0.000189	0.000197
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00142	0.00071	0.00082	0.00168	0.00089
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.02	1.16	1.06	1.05	1.05
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00182	0.00208	0.00166	0.00148	0.00166

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PW-01	PW-02	PW-03	PW-04	PW-05
					Client sampling date / time	26-May-2023 08:45	26-May-2023 09:00	26-May-2023 09:15	26-May-2023 09:40	26-May-2023 10:00
						WP2309859-001	WP2309859-002	WP2309859-003	WP2309859-004	WP2309859-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000102	0.000398	0.000108	0.000108	0.000095
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.63	2.17	1.82	1.64	1.56
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.30	1.34	1.73	1.84	1.89
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0277	0.0226	0.0262	0.0263	0.0271
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.42	0.55	0.75	1.12	1.12
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	0.00029	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00827	0.0104	0.00481	0.00313	0.00473
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000118	0.000111	0.000107	0.000096	0.000100
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00068	0.00077	0.00051	<0.00050	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00026	0.00029	0.00021	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0284	0.0476	0.0349	0.0258	0.0237
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00021	<0.00010	0.00011	0.00013	0.00014
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00397	0.00089	0.00235	0.00263	0.00289
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00655	0.00959	0.00741	0.00709	0.00696
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.53	11.7	10.6	10.4	10.8
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00017	<0.00010	<0.00010	<0.00010	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PW-01	PW-02	PW-03	PW-04	PW-05
					Client sampling date / time	26-May-2023 08:45	26-May-2023 09:00	26-May-2023 09:15	26-May-2023 09:40	26-May-2023 10:00
						WP2309859-001	WP2309859-002	WP2309859-003	WP2309859-004	WP2309859-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00108	0.00095	0.00098	0.00096	0.00100
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.076	0.093	0.065	0.050	0.041
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0013	0.0012	0.0013	0.0011	0.0011
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.52	2.68	2.59	2.58	2.59
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00252	0.00116	0.00087	0.00090	0.00074
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000160	0.000190	0.000156	0.000158	0.000176
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00094	<0.00050	0.00058	0.00059	0.00067
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.868	0.986	0.923	0.904	0.913
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00131	0.00174	0.00140	0.00138	0.00140
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000086	0.000097	0.000102	0.000083	0.000096
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.15	1.50	1.40	1.33	1.18
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.04	1.21	1.57	1.65	1.74
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0252	0.0197	0.0224	0.0242	0.0259
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.33	<0.50	0.80	0.87	1.06
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00069	0.00128	0.00084	0.00054	0.00058
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000100	0.000091	0.000087	0.000083	0.000092
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	PW-01	PW-02	PW-03	PW-04	PW-05
					Client sampling date / time	26-May-2023 08:45	26-May-2023 09:00	26-May-2023 09:15	26-May-2023 09:40	26-May-2023 10:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309859-001	WP2309859-002	WP2309859-003	WP2309859-004	WP2309859-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	CR-FDP	CR-DS	----	----	----
				Client sampling date / time	26-May-2023 08:20	26-May-2023 08:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2309859-006	WP2309859-007	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.66	7.90	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	13.5	14.2	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.4	2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	27.9	32.4	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	27.9	32.4	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	77.2	81.3	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	33.0	36.7	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	34.7	39.8	----	----	----
pH	----	E108/WP	0.10	pH units	7.55	7.46	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	56.0	61.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	5.4	5.4	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	0.021	0.018	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	2.14	1.54	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0202	0.0206	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	3.95	2.88	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	----	----	----
					Client sampling date / time	26-May-2023 08:20	26-May-2023 08:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309859-006	WP2309859-007	--------	--------	--------
						Result	Result	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.4	15.2	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.171	0.248	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00030	0.00020	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00554	0.00402	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00842	0.00952	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000095	0.0000060	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.59	10.7	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000021	0.000023	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00059	0.00066	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00059	0.00066	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00014	0.00016	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00162	0.00132	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.236	0.392	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000097	0.000127	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0019	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.62	3.18	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00964	0.0161	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000180	0.000277	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00142	0.00127	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.01	1.10	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00172	0.00180	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000145	0.000131	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.55	1.99	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	----	----	----
					Client sampling date / time	26-May-2023 08:20	26-May-2023 08:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309859-006	WP2309859-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.32	2.10	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0282	0.0279	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.49	0.97	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00829	0.00982	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000108	0.000158	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00062	0.00087	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0059	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00025	0.00033	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0220	0.0417	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00020	0.00016	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00422	0.00350	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00633	0.00712	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.32	10.2	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00109	0.00104	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.051	0.130	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	----	----	----
					Client sampling date / time	26-May-2023 08:20	26-May-2023 08:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309859-006	WP2309859-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0013	0.0015	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.37	2.72	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00150	0.00591	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000142	0.000196	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00091	0.00081	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.829	0.919	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00141	0.00145	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000076	0.000104	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.04	1.33	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.02	1.95	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0250	0.0246	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.32	1.13	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00056	0.00134	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000089	0.000125	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2309859**	Page	: 1 of 29
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 30-May-2023 09:00
PO	: ----	Issue Date	: 06-Jun-2023 16:20
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
CR-DS	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
CR-FDP	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
PW-01	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
PW-02	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
PW-03	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
PW-04	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
PW-05	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PW-01	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PW-02	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PW-03	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PW-04	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PW-05	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PW-01	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PW-02	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PW-03	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PW-04	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PW-05	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PW-01	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PW-02	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PW-03	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PW-04	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PW-05	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PW-01	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PW-02	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PW-03	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PW-04	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
PW-05	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-DS	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-FDP	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PW-01	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PW-02	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PW-03	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PW-04	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PW-05	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-01	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-02	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-03	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-04	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-05	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-01	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-02	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-03	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-04	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-05	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-01	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-02	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-03	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-04	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PW-05	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-DS	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-FDP	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PW-01	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PW-02	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PW-03	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PW-04	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PW-05	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-DS	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-FDP	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PW-01	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PW-02	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PW-03	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PW-04	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PW-05	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-DS	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-FDP	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PW-01	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PW-02	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PW-03	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PW-04	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PW-05	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PW-01	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PW-02	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PW-03	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PW-04	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PW-05	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-DS	EF001	26-May-2023	----	----	----		31-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-FDP	EF001	26-May-2023	----	----	----		31-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PW-01	EF001	26-May-2023	----	----	----		31-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PW-02	EF001	26-May-2023	----	----	----		31-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PW-03	EF001	26-May-2023	----	----	----		31-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PW-04	EF001	26-May-2023	----	----	----		31-May-2023	----	----	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PW-05	EF001	26-May-2023	----	----	----		31-May-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-DS	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-FDP	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PW-01	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PW-02	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PW-03	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PW-04	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PW-05	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-DS	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PW-01	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PW-02	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PW-03	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PW-04	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PW-05	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PW-01	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PW-02	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PW-03	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PW-04	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PW-05	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PW-01	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PW-02	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PW-03	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PW-04	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PW-05	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PW-01	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PW-02	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PW-03	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PW-04	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PW-05	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-01	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-02	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-03	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-04	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-05	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-01	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-02	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-03	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-04	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] PW-05	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PW-01	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PW-02	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PW-03	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PW-04	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PW-05	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PW-01	E508	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PW-02	E508	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PW-03	E508	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PW-04	E508	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PW-05	E508	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PW-01	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PW-02	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PW-03	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PW-04	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PW-05	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
CR-FDP	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
PW-01	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
PW-02	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
PW-03	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
PW-04	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
PW-05	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	963495	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	963920	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	963379	1	16	6.2	5.0	✓
Conductivity in Water	E100	963496	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	966248	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964046	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	966250	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	963576	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	966249	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	967105	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	963380	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	963381	1	16	6.2	5.0	✓
pH by Meter	E108	963497	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	963382	1	21	4.7	5.0	✗
TDS by Gravimetry (Low Level)	E162-L	965710	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	965952	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	967103	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	964023	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	965954	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	966995	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	965953	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968321	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	967104	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	963495	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	963920	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	963379	2	16	12.5	5.0	✓
Conductivity in Water	E100	963496	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	966248	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964046	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	966250	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	963576	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	966249	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	967105	1	16	6.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	963380	2	16	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	963381	2	16	12.5	5.0	✓
pH by Meter	E108	963497	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	963382	2	21	9.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	965710	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	965952	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	967103	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	964023	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	965954	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	966995	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	965953	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968321	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	967104	1	16	6.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	963495	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	963920	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	963379	2	16	12.5	5.0	✓
Conductivity in Water	E100	963496	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	966248	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964046	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	966250	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	963576	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	966249	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	967105	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	963380	2	16	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	963381	2	16	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	963382	2	21	9.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	965710	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	965952	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	967103	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	964023	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	965954	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	966995	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	965953	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968321	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	967104	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	963920	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✖ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	963379	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	966248	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964046	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	966250	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	963576	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	966249	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	967105	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	963380	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	963381	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	963382	1	21	4.7	5.0	✖
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	965952	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	967103	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	964023	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	965954	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	966995	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	965953	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	967104	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2309859**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 30-May-2023 09:00
PO	: ----	Date Analysis Commenced	: 30-May-2023
C-O-C number	: ----	Issue Date	: 06-Jun-2023 16:20
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 963495)											
WP2309764-012	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	4.8	5.5	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 963496)											
WP2309764-012	Anonymous	Conductivity	----	E100	1.0	µS/cm	21.8	21.6	0.922%	10%	----
Physical Tests (QC Lot: 963497)											
WP2309859-001	PW-01	pH	----	E108	0.10	pH units	7.45	7.56	1.46%	4%	----
Physical Tests (QC Lot: 965710)											
WP2309759-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	417	424	1.66%	20%	----
Physical Tests (QC Lot: 966375)											
WP2309710-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.0	2.1	0.04	Diff <2x LOR	----
Physical Tests (QC Lot: 968321)											
WP2309859-001	PW-01	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.0	5.4	0.3	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 963386)											
WP2309859-004	PW-04	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	2.94	2.85	0.09	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 963387)											
WP2309859-004	PW-04	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.38	1.34	3.05%	20%	----
Anions and Nutrients (QC Lot: 963388)											
WP2309859-004	PW-04	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0145	0.0141	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 963389)											
WP2309859-004	PW-04	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 963920)											
WP2309859-001	PW-01	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.010	0.012	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 966995)											
WP2309859-001	PW-01	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0216	0.0205	5.28%	20%	----
Cyanides (QC Lot: 967103)											
WP2309859-001	PW-01	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 967104)											
WP2309859-001	PW-01	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 967105)											
WP2309859-001	PW-01	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 963576)											
WP2309451-007	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.68	8.87	2.22%	20%	----
Total Metals (QC Lot: 964023)											
WP2309710-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 965952)											
WP2309859-001	PW-01	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00062	0.00055	0.00007	Diff <2x LOR	----
Total Metals (QC Lot: 965953)											
WP2309859-001	PW-01	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 965954)											
WP2309859-001	PW-01	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.194	0.198	2.16%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00023	0.00024	0.000003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00513	0.00524	2.12%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00861	0.00881	2.31%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000073	0.0000071	0.0000002	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.96	9.58	3.96%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000021	0.000023	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00062	0.00055	0.00007	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00014	0.00014	0.000005	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00143	0.00146	0.00003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.272	0.278	2.21%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000105	0.000120	0.000015	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0016	0.0016	0.000002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.90	2.74	5.80%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0113	0.0113	0.497%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000198	0.000206	0.000007	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00142	0.00132	0.00010	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.02	1.00	2.04%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00182	0.00186	0.00004	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000102	0.000110	0.000007	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.63	1.79	9.58%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 965954) - continued											
WP2309859-001	PW-01	Sodium, total	7440-23-5	E420	0.050	mg/L	2.30	2.20	4.58%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0277	0.0273	1.64%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1.42	1.56	0.13	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00827	0.00920	10.6%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000118	0.000121	3.07%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00068	0.00073	0.00004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00026	0.00026	0.000002	Diff <2x LOR	----
Total Metals (QC Lot: 966262)											
WP2309859-003	PW-03	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 964046)											
WP2309859-001	PW-01	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 966248)											
WP2309859-001	PW-01	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00017	<0.00010	0.00007	Diff <2x LOR	----
Dissolved Metals (QC Lot: 966249)											
WP2309859-001	PW-01	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 966250)											
WP2309859-001	PW-01	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0284	0.0292	2.47%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00021	0.00021	0.000002	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00397	0.00398	0.154%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00655	0.00663	1.25%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	9.53	9.57	0.425%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 966250) - continued											
WP2309859-001	PW-01	Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00108	0.00108	0.000006	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.076	0.074	0.002	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0013	0.0014	0.00010	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.52	2.41	4.16%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00252	0.00243	3.65%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000160	0.000166	0.000006	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00094	0.00084	0.00010	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.868	0.867	0.131%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00131	0.00135	0.00004	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000086	0.000090	0.000004	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.15	1.14	1.05%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.04	2.01	1.49%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0252	0.0249	1.37%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.33	1.11	0.22	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00069	0.00073	0.00004	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000100	0.000103	2.88%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 963495)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 963496)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 965710)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 966375)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 968321)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 963379)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 963380)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 963381)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 963382)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 963386)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 963387)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 963388)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 963389)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 963920)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 966995)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 967103)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 967104)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 967104) - continued						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 967105)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 963576)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 964023)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 965952)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 965953)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 965954)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 965954) - continued						
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 966262)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 964046)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 966248)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 966249)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 966250)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 966250) - continued						
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 963495)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 963496)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 963497)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 965710)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.4	85.0	115	----
Physical Tests (QCLot: 966375)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	110	85.0	115	----
Physical Tests (QCLot: 968321)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 963379)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.4	90.0	110	----
Anions and Nutrients (QCLot: 963380)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 963381)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 963382)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 963386)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 963387)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 963388)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 963389)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 963920)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 966995)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.4	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Cyanides (QCLot: 967103)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.9	80.0	120	----
Cyanides (QCLot: 967104)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	98.5	80.0	120	----
Cyanides (QCLot: 967105)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	95.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 963576)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.1	80.0	120	----
Total Metals (QCLot: 964023)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	97.8	80.0	120	----
Total Metals (QCLot: 965952)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Total Metals (QCLot: 965953)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Total Metals (QCLot: 965954)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.6	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	92.2	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	91.6	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	88.9	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	94.0	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	108	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	92.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.2	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 965954) - continued									
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	114	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.7	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	93.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.5	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.4	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Total Metals (QCLot: 966262)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	94.7	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.8	80.0	120	----
Dissolved Metals (QCLot: 966248)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Dissolved Metals (QCLot: 966250)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	104	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	107	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	94.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 966250) - continued									
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	115	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	92.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	115	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	105	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	93.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	100	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 963386)										
WP2309859-004	PW-04	Sulfate (as SO4)	14808-79-8	E235.SO4	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 963387)										
WP2309859-004	PW-04	Chloride	16887-00-6	E235.Cl-L	100.0 mg/L	100 mg/L	100.0	75.0	125	----
Anions and Nutrients (QCLot: 963388)										
WP2309859-004	PW-04	Nitrate (as N)	14797-55-8	E235.NO3-L	2.53 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 963389)										
WP2309859-004	PW-04	Nitrite (as N)	14797-65-0	E235.NO2-L	0.510 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 963920)										
WP2309859-001	PW-01	Ammonia, total (as N)	7664-41-7	E303	0.214 mg/L	0.25 mg/L	85.6	75.0	125	----
Anions and Nutrients (QCLot: 966995)										
WP2309859-002	PW-02	Phosphorus, total	7723-14-0	E372-U	0.243 mg/L	0.25 mg/L	97.1	70.0	130	----
Cyanides (QCLot: 967103)										
WP2309859-001	PW-01	Cyanide, strong acid dissociable (Total)	----	E333-L	0.227 mg/L	0.25 mg/L	91.0	75.0	125	----
Cyanides (QCLot: 967104)										
WP2309859-001	PW-01	Cyanide, weak acid dissociable	----	E336-L	0.134 mg/L	0.125 mg/L	108	75.0	125	----
Cyanides (QCLot: 967105)										
WP2309859-001	PW-01	Cyanide, free	----	E339-L	0.131 mg/L	0.125 mg/L	105	75.0	125	----
Organic / Inorganic Carbon (QCLot: 963576)										
WP2309451-008	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 964023)										
WP2309764-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000990 mg/L	0.0001 mg/L	99.0	70.0	130	----
Total Metals (QCLot: 965952)										
WP2309859-001	PW-01	Chromium, total	7440-47-3	E420.Cr-L	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
Total Metals (QCLot: 965953)										
WP2309859-001	PW-01	Phosphorus, total	7723-14-0	E420.P-L	9.89 mg/L	10 mg/L	98.9	70.0	130	----
Total Metals (QCLot: 965954)										
WP2309859-001	PW-01	Aluminum, total	7429-90-5	E420	0.190 mg/L	0.2 mg/L	94.9	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 965954) - continued										
WP2309859-001	PW-01	Antimony, total	7440-36-0	E420	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----
		Barium, total	7440-39-3	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0388 mg/L	0.04 mg/L	97.1	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00995 mg/L	0.01 mg/L	99.5	70.0	130	----
		Boron, total	7440-42-8	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00420 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Copper, total	7440-50-8	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Iron, total	7439-89-6	E420	1.96 mg/L	2 mg/L	98.0	70.0	130	----
		Lead, total	7439-92-1	E420	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0903 mg/L	0.1 mg/L	90.3	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0396 mg/L	0.04 mg/L	99.1	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.89 mg/L	10 mg/L	98.9	70.0	130	----
		Potassium, total	7440-09-7	E420	3.98 mg/L	4 mg/L	99.6	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, total	7440-21-3	E420	10.3 mg/L	10 mg/L	103	70.0	130	----
		Silver, total	7440-22-4	E420	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.8 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0397 mg/L	0.04 mg/L	99.3	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00369 mg/L	0.004 mg/L	92.2	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0185 mg/L	0.02 mg/L	92.3	70.0	130	----
		Tin, total	7440-31-5	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00365 mg/L	0.004 mg/L	91.2	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 965954) - continued										
WP2309859-001	PW-01	Vanadium, total	7440-62-2	E420	0.0993 mg/L	0.1 mg/L	99.3	70.0	130	----
		Zinc, total	7440-66-6	E420	0.383 mg/L	0.4 mg/L	95.8	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
Total Metals (QCLot: 966262)										
WP2309859-004	PW-04	Mercury, total	7439-97-6	E508	0.0000918 mg/L	0.0001 mg/L	91.8	70.0	130	----
Dissolved Metals (QCLot: 964046)										
WP2309859-002	PW-02	Mercury, dissolved	7439-97-6	E509	0.0000980 mg/L	0.0001 mg/L	98.0	70.0	130	----
Dissolved Metals (QCLot: 966248)										
WP2309859-001	PW-01	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0384 mg/L	0.04 mg/L	95.9	70.0	130	----
Dissolved Metals (QCLot: 966249)										
WP2309859-001	PW-01	Phosphorus, dissolved	7723-14-0	E421.P-L	9.75 mg/L	10 mg/L	97.5	70.0	130	----
Dissolved Metals (QCLot: 966250)										
WP2309859-001	PW-01	Aluminum, dissolved	7429-90-5	E421	0.195 mg/L	0.2 mg/L	97.4	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00964 mg/L	0.01 mg/L	96.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00400 mg/L	0.004 mg/L	99.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00988 mg/L	0.01 mg/L	98.8	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0384 mg/L	0.04 mg/L	95.9	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0191 mg/L	0.02 mg/L	95.3	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.94 mg/L	2 mg/L	97.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0994 mg/L	0.1 mg/L	99.4	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0192 mg/L	0.02 mg/L	96.3	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0378 mg/L	0.04 mg/L	94.5	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.75 mg/L	10 mg/L	97.5	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.84 mg/L	4 mg/L	96.1	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 966250) - continued										
WP2309859-001	PW-01	Rubidium, dissolved	7440-17-7	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.20 mg/L	10 mg/L	92.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.6 mg/L	20 mg/L	98.1	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	108	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00429 mg/L	0.004 mg/L	107	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0948 mg/L	0.1 mg/L	94.8	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.384 mg/L	0.4 mg/L	95.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q			Field pH	Field Temperature	Field Conductivity
1	PW-01	26-May-23	8:45	Water	9	X			7.58	13.71	0.092
2	PW-02	26-May-23	9:00	Water	9	X			7.62	15.26	0.077
3	PW-03	26-May-23	9:15	Water	9	X			7.54	13.02	0.076
4	PW-04	26-May-23	9:40	Water	9	X			7.8	11.43	0.076
5	PW-05	26-May-23	10:00	Water	9	X			7.76	11.44	0.078
6	CR-FDP	26-May-23	8:20	Water	9	X			7.66	13.49	0.07
7	CR-DS	26-May-23	8:00	Water	9	X			7.9	14.23	0.072

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: 5/29/2023	Time:	Received by:	Date: MAY 30 2023	Time: 9:00	Received by:	Time:

19.0°

Environmental Division
Winnipeg
Work Order Reference
WP2309859

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2309861**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 30-May-2023 09:00
PO	: ----	Date Analysis Commenced	: 30-May-2023
C-O-C number	: ----	Issue Date	: 06-Jun-2023 16:20
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jenna Friesen	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-09	SW-010	----	----	----
				Client sampling date / time	26-May-2023 12:15	26-May-2023 11:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2309861-001	WP2309861-002	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.59	7.54	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	17.8	18.2	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	3.2	3.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	36.0	46.0	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	36.0	46.0	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	80.2	99.5	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	38.5	49.9	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	41.6	52.7	----	----	----
pH	----	E108/WP	0.10	pH units	7.63	7.70	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	70.7	91.3	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	12.2	7.2	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	0.043	0.012	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.33	0.14	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0174	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0174	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0338	0.0248	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.90	0.92	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0012	0.0016	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	SW-010	----	----	----
					Client sampling date / time	26-May-2023 12:15	26-May-2023 11:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309861-001	WP2309861-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		18.6	23.2	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.468	0.290	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00187	0.00210	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0126	0.0115	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000031	0.000022	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000102	0.0000052	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.9	13.7	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000052	0.000029	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00104	0.00082	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00104	0.00082	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00027	0.00021	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00141	0.00096	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.808	0.563	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000259	0.000145	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	0.0025	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.50	4.49	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0350	0.0329	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000242	0.000568	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00109	0.00106	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.23	1.31	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00266	0.00163	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	SW-010	----	----	----
					Client sampling date / time	26-May-2023 12:15	26-May-2023 11:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309861-001	WP2309861-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000128	0.000129	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.00	2.07	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.63	1.97	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0274	0.0299	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000011	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00012	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0210	0.0112	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000290	0.000157	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00159	0.00102	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00046	0.00041	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0658	0.0726	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00164	0.00191	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00861	0.00940	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.5	13.4	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00026	0.00020	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00011	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	SW-010	----	----	----
					Client sampling date / time	26-May-2023 12:15	26-May-2023 11:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309861-001	WP2309861-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00092	0.00071	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.321	0.292	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000078	0.000066	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0014	0.0020	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.98	3.99	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0230	0.0257	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000204	0.000493	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00051	0.00062	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.02	1.13	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00161	0.00113	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000105	0.000071	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.95	1.39	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.42	1.78	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0239	0.0272	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00212	0.00205	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000261	0.000144	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00071	0.00052	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00033	0.00038	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	SW-010	----	----	----
					Client sampling date / time	26-May-2023 12:15	26-May-2023 11:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2309861-001	WP2309861-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2309861**	Page	: 1 of 15
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 30-May-2023 09:00
PO	: ----	Issue Date	: 06-Jun-2023 16:20
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-010	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-09	E303	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-010	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.Cl-L	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-010	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO3-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-010	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.NO2-L	26-May-2023	30-May-2023	----	----		30-May-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-010	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-09	E235.SO4	26-May-2023	30-May-2023	----	----		30-May-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-010	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-09	E372-U	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-010	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-010	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-010	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-09	E336-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-010	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-09	E421.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-010	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-010	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-010	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-09	E421.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-010	EF001	26-May-2023	----	----	----		31-May-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-09	EF001	26-May-2023	----	----	----		31-May-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-010	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-09	E358-L	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-010	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-09	E283	26-May-2023	01-Jun-2023	----	----		02-Jun-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-010	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-09	E290	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-010	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	26-May-2023	31-May-2023	----	----		31-May-2023	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-010	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	26-May-2023	31-May-2023	----	----		31-May-2023	14 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-010	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-010	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E160-L	26-May-2023	----	----	----		01-Jun-2023	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-010	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-010	E508	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-010	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-010	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	26-May-2023	01-Jun-2023	----	----		01-Jun-2023	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	963495	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	963920	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	963387	1	9	11.1	5.0	✓
Conductivity in Water	E100	963496	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	966248	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964046	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	966250	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	963576	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	966249	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	967105	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	963388	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	963389	1	9	11.1	5.0	✓
pH by Meter	E108	963497	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	963386	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	965710	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	965952	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	967103	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	966262	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	965954	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	966995	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	965953	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968321	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	967104	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	963495	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	963920	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	963387	1	9	11.1	5.0	✓
Conductivity in Water	E100	963496	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	966248	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964046	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	966250	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	963576	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	966249	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	967105	1	16	6.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	963388	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	963389	1	9	11.1	5.0	✓
pH by Meter	E108	963497	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	963386	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	965710	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	965952	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	967103	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	966262	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	965954	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	966995	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	965953	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968321	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	967104	1	16	6.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	966375	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	963495	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	963920	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	963387	1	9	11.1	5.0	✓
Conductivity in Water	E100	963496	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	966248	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964046	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	966250	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	963576	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	966249	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	967105	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	963388	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	963389	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	963386	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	965710	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	965952	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	967103	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	966262	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	965954	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	966995	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	965953	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968321	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	967104	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	963920	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	963387	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	966248	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	964046	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	966250	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	963576	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	966249	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	967105	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	963388	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	963389	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	963386	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	965952	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	967103	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	966262	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	965954	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	966995	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	965953	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	967104	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2309861**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 30-May-2023 09:00
PO	: ----	Date Analysis Commenced	: 30-May-2023
C-O-C number	: ----	Issue Date	: 06-Jun-2023 16:20
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jenna Friesen	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 963495)											
WP2309764-012	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	4.8	5.5	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 963496)											
WP2309764-012	Anonymous	Conductivity	----	E100	1.0	µS/cm	21.8	21.6	0.922%	10%	----
Physical Tests (QC Lot: 963497)											
WP2309859-001	Anonymous	pH	----	E108	0.10	pH units	7.45	7.56	1.46%	4%	----
Physical Tests (QC Lot: 965710)											
WP2309759-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	417	424	1.66%	20%	----
Physical Tests (QC Lot: 966375)											
WP2309710-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.0	2.1	0.04	Diff <2x LOR	----
Physical Tests (QC Lot: 968321)											
WP2309859-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.0	5.4	0.3	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 963386)											
WP2309859-004	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	2.94	2.85	0.09	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 963387)											
WP2309859-004	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.38	1.34	3.05%	20%	----
Anions and Nutrients (QC Lot: 963388)											
WP2309859-004	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0145	0.0141	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 963389)											
WP2309859-004	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 963920)											
WP2309859-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.010	0.012	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 966995)											
WP2309859-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0216	0.0205	5.28%	20%	----
Cyanides (QC Lot: 967103)											
WP2309859-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 967104)											
WP2309859-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 967105)											
WP2309859-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 963576)											
WP2309451-007	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.68	8.87	2.22%	20%	----
Total Metals (QC Lot: 965952)											
WP2309859-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00062	0.00055	0.00007	Diff <2x LOR	----
Total Metals (QC Lot: 965953)											
WP2309859-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 965954)											
WP2309859-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.194	0.198	2.16%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00023	0.00024	0.000003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00513	0.00524	2.12%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00861	0.00881	2.31%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000073	0.0000071	0.0000002	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.96	9.58	3.96%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000021	0.000023	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00062	0.00055	0.00007	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00014	0.00014	0.000005	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00143	0.00146	0.00003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.272	0.278	2.21%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000105	0.000120	0.000015	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0016	0.0016	0.000002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.90	2.74	5.80%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0113	0.0113	0.497%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000198	0.000206	0.000007	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00142	0.00132	0.00010	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.02	1.00	2.04%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00182	0.00186	0.00004	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000102	0.000110	0.000007	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.63	1.79	9.58%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.30	2.20	4.58%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0277	0.0273	1.64%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 965954) - continued											
WP2309859-001	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	1.42	1.56	0.13	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00827	0.00920	10.6%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000118	0.000121	3.07%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00068	0.00073	0.00004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00026	0.00026	0.000002	Diff <2x LOR	----
Total Metals (QC Lot: 966262)											
WP2309859-003	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 964046)											
WP2309859-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 966248)											
WP2309859-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00017	<0.00010	0.00007	Diff <2x LOR	----
Dissolved Metals (QC Lot: 966249)											
WP2309859-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 966250)											
WP2309859-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0284	0.0292	2.47%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00021	0.00021	0.000002	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00397	0.00398	0.154%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00655	0.00663	1.25%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	9.53	9.57	0.425%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00108	0.00108	0.000006	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.076	0.074	0.002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 966250) - continued											
WP2309859-001	Anonymous	Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0013	0.0014	0.00010	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.52	2.41	4.16%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00252	0.00243	3.65%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000160	0.000166	0.000006	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00094	0.00084	0.00010	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.868	0.867	0.131%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00131	0.00135	0.00004	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000086	0.000090	0.000004	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.15	1.14	1.05%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.04	2.01	1.49%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0252	0.0249	1.37%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.33	1.11	0.22	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00069	0.00073	0.00004	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000100	0.000103	2.88%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 963495)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 963496)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 965710)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 966375)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 968321)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 963386)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 963387)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 963388)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 963389)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 963920)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 966995)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 967103)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 967104)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 967105)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 963576)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 965952)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 965953)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 965953) - continued						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 965954)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 965954) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 966262)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 964046)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 966248)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 966249)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 966250)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 966250) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 963495)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 963496)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 963497)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 965710)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.4	85.0	115	----
Physical Tests (QCLot: 966375)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	110	85.0	115	----
Physical Tests (QCLot: 968321)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 963386)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 963387)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 963388)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 963389)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 963920)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 966995)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.4	80.0	120	----
Cyanides (QCLot: 967103)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.9	80.0	120	----
Cyanides (QCLot: 967104)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	98.5	80.0	120	----
Cyanides (QCLot: 967105)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	95.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 963576)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.1	80.0	120	----
Total Metals (QCLot: 965952)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Total Metals (QCLot: 965953)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Total Metals (QCLot: 965954)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.6	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	92.2	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	91.6	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	88.9	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	94.0	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	108	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	92.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.2	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	114	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 965954) - continued									
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.7	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	93.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.5	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.4	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Total Metals (QCLot: 966262)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	94.7	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.8	80.0	120	----
Dissolved Metals (QCLot: 966248)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Dissolved Metals (QCLot: 966250)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	104	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	107	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	94.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	115	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	92.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 966250) - continued									
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	115	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	105	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	93.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	100	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 963386)										
WP2309859-004	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 963387)										
WP2309859-004	Anonymous	Chloride	16887-00-6	E235.Cl-L	100.0 mg/L	100 mg/L	100.0	75.0	125	----
Anions and Nutrients (QCLot: 963388)										
WP2309859-004	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.53 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 963389)										
WP2309859-004	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.510 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 963920)										
WP2309859-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.214 mg/L	0.25 mg/L	85.6	75.0	125	----
Anions and Nutrients (QCLot: 966995)										
WP2309859-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.243 mg/L	0.25 mg/L	97.1	70.0	130	----
Cyanides (QCLot: 967103)										
WP2309859-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.227 mg/L	0.25 mg/L	91.0	75.0	125	----
Cyanides (QCLot: 967104)										
WP2309859-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.134 mg/L	0.125 mg/L	108	75.0	125	----
Cyanides (QCLot: 967105)										
WP2309859-001	Anonymous	Cyanide, free	----	E339-L	0.131 mg/L	0.125 mg/L	105	75.0	125	----
Organic / Inorganic Carbon (QCLot: 963576)										
WP2309451-008	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 965952)										
WP2309859-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
Total Metals (QCLot: 965953)										
WP2309859-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	9.89 mg/L	10 mg/L	98.9	70.0	130	----
Total Metals (QCLot: 965954)										
WP2309859-001	Anonymous	Aluminum, total	7429-90-5	E420	0.190 mg/L	0.2 mg/L	94.9	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----
		Barium, total	7440-39-3	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 965954) - continued										
WP2309859-001	Anonymous	Beryllium, total	7440-41-7	E420	0.0388 mg/L	0.04 mg/L	97.1	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00995 mg/L	0.01 mg/L	99.5	70.0	130	----
		Boron, total	7440-42-8	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00420 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Copper, total	7440-50-8	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Iron, total	7439-89-6	E420	1.96 mg/L	2 mg/L	98.0	70.0	130	----
		Lead, total	7439-92-1	E420	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0903 mg/L	0.1 mg/L	90.3	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0396 mg/L	0.04 mg/L	99.1	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.89 mg/L	10 mg/L	98.9	70.0	130	----
		Potassium, total	7440-09-7	E420	3.98 mg/L	4 mg/L	99.6	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, total	7440-21-3	E420	10.3 mg/L	10 mg/L	103	70.0	130	----
		Silver, total	7440-22-4	E420	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.8 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0397 mg/L	0.04 mg/L	99.3	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00369 mg/L	0.004 mg/L	92.2	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0185 mg/L	0.02 mg/L	92.3	70.0	130	----
		Tin, total	7440-31-5	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00365 mg/L	0.004 mg/L	91.2	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0993 mg/L	0.1 mg/L	99.3	70.0	130	----
		Zinc, total	7440-66-6	E420	0.383 mg/L	0.4 mg/L	95.8	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0423 mg/L	0.04 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 966262)										
WP2309859-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000918 mg/L	0.0001 mg/L	91.8	70.0	130	----
Dissolved Metals (QCLot: 964046)										
WP2309859-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000980 mg/L	0.0001 mg/L	98.0	70.0	130	----
Dissolved Metals (QCLot: 966248)										
WP2309859-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0384 mg/L	0.04 mg/L	95.9	70.0	130	----
Dissolved Metals (QCLot: 966249)										
WP2309859-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	9.75 mg/L	10 mg/L	97.5	70.0	130	----
Dissolved Metals (QCLot: 966250)										
WP2309859-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.195 mg/L	0.2 mg/L	97.4	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00964 mg/L	0.01 mg/L	96.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00400 mg/L	0.004 mg/L	99.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00988 mg/L	0.01 mg/L	98.8	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0384 mg/L	0.04 mg/L	95.9	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0191 mg/L	0.02 mg/L	95.3	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.94 mg/L	2 mg/L	97.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0994 mg/L	0.1 mg/L	99.4	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0192 mg/L	0.02 mg/L	96.3	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0378 mg/L	0.04 mg/L	94.5	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.75 mg/L	10 mg/L	97.5	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.84 mg/L	4 mg/L	96.1	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.20 mg/L	10 mg/L	92.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 966250) - continued										
WP2309859-001	Anonymous	Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.6 mg/L	20 mg/L	98.1	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	108	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00429 mg/L	0.004 mg/L	107	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0948 mg/L	0.1 mg/L	94.8	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.384 mg/L	0.4 mg/L	95.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:**	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
	SW-09	26-May-23	13:15	Water	9	X			7.59	17.8	0.064
	SW-010	26-May-23	11:30	Water	9	X			7.54	18.2	0.081

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: May 29th, 2023	Time:	Received by:	Date: MAI 30 2023	Time: 9:00 SP 19.0°	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2309861

Telephone : +1 204 255 9720

98621

ALS Canada Ltd.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2310321**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 01-Jun-2023 09:42
PO	: ----	Date Analysis Commenced	: 01-Jun-2023
C-O-C number	: ----	Issue Date	: 09-Jun-2023 16:44
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
						WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.69	7.28	7.28	7.51	----
Temperature, field	----	EF001/WP	0.10	°C		19.7	22.0	22.0	21.8	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.3	4.1	4.2	3.5	2.1
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		31.5	32.9	33.8	33.3	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		31.5	32.9	33.8	33.3	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		68.1	71.9	71.5	71.5	<1.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		34.7	35.8	35.8	34.8	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		36.0	37.2	37.9	37.6	<0.50
pH	----	E108/WP	0.10	pH units		7.48	7.49	7.48	7.55	5.43
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		62.2	63.2	67.8	63.8	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.1	12.1	17.4	4.4	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	<0.010	0.033	<0.010	<0.010
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.001	mg/L		----	----	----	----	nr
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.24	0.24	0.24	0.24	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0217	0.0142	0.0083	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0217	0.0142	0.0083	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0210	0.0330	0.0444	0.0242	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.79	0.83	0.83	0.86	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
						WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0010	0.0011	0.0010	0.0010	0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0010	0.0010	0.0011	0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		20.0	20.1	19.4	18.6	<0.50
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.140	0.294	0.367	0.161	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00169	0.00185	0.00192	0.00174	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00856	0.0105	0.0111	0.00920	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	0.000027	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000087	0.0000075	0.0000050	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.57	9.81	9.88	9.93	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000029	0.000039	0.000013	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00049	0.00081	0.00090	0.00057	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00081	0.00090	0.00057	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00011	0.00020	0.00022	0.00012	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00094	0.00112	0.00120	0.00096	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.448	0.635	0.709	0.492	<0.010
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000096	0.000189	0.000232	0.000141	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0019	0.0019	0.0015	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.94	3.08	3.22	3.11	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0138	0.0169	0.0207	0.0194	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000191	0.000195	0.000208	0.000184	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00066	0.00083	0.00100	0.00066	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.046	0.054	0.039	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	0.054	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.00	1.13	1.19	1.10	<0.050

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
						WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Total Metals										
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00179	0.00216	0.00248	0.00195	<0.00020
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000132	0.000091	0.000101	0.000123	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.28	2.22	2.55	2.18	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.49	1.46	2.25	1.45	<0.050
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0222	0.0231	0.0236	0.0229	<0.00020
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		0.00027	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00414	0.0117	0.0156	0.00598	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000220	0.000254	0.000257	0.000250	<0.000010
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00077	0.00128	0.00152	0.00091	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0033	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00028	0.00030	0.00035	0.00029	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0759	0.0682	0.0717	0.0629	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00147	0.00160	0.00164	0.00168	<0.00010
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00878	0.00871	0.00883	0.00845	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000092	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		8.97	9.46	9.32	9.21	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00042	0.00033	0.00040	0.00024	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
						WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00087	0.00084	0.00086	0.00074	<0.00020
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.262	0.344	0.344	0.321	<0.010
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000066	0.000099	0.000099	0.000080	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0011	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.99	2.97	3.05	2.88	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00762	0.00518	0.00440	0.00790	<0.00010
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000168	0.000168	0.000164	0.000163	<0.000050
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00063	0.00057	0.00055	<0.00050	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.968	0.987	0.996	1.14	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00165	0.00185	0.00179	0.00167	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000067	0.000090	0.000069	0.000134	0.000062
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.05	1.74	1.73	1.79	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.33	1.27	1.32	1.29	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0211	0.0214	0.0197	0.0242	<0.00020
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	0.57	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00127	0.00209	0.00220	0.00202	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000258	0.000263	0.000243	0.000216	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00050	0.00073	0.00078	0.00078	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0024	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2310321**	Page	: 1 of 25
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 01-Jun-2023 09:42
PO	: ----	Issue Date	: 09-Jun-2023 16:36
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-MRG3-972371002	----	Lithium, dissolved	7439-93-2	E421	78.5 % MES	80.0-120%	Recovery less than lower control limit
Dissolved Metals	QC-MRG3-968405002	----	Uranium, dissolved	7440-61-1	E421	127 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) BLANK	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DC-US	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DL-REF	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUB-03	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) GL-TRIB	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUB-03	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUB-03	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUB-03	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BLANK	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DC-US	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DL-REF	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUB-03	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] GL-TRIB	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DC-US	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DL-REF	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUB-03	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GL-TRIB	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DL-REF	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUB-03	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-TRIB	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DL-REF	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUB-03	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-TRIB	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DL-REF	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUB-03	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUB-03	E421.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GL-TRIB	E421.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK	E421.Cr-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DC-US	E421.Cr-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DC-US	E509	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DL-REF	E509	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUB-03	E509	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GL-TRIB	E509	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) BLANK	E509	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DL-REF	E421	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUB-03	E421	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) GL-TRIB	E421	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK	E421	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-US	E421	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DL-REF	E421.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUB-03	E421.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) GL-TRIB	E421.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK	E421.P-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DC-US	E421.P-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) BLANK	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DC-US	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DL-REF	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DUB-03	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) GL-TRIB	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) BLANK	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DC-US	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DL-REF	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DUB-03	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GL-TRIB	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE BLANK	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE DC-US	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE DL-REF	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE DUB-03	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE GL-TRIB	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DC-US	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DL-REF	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUB-03	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] GL-TRIB	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DC-US	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DL-REF	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUB-03	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] GL-TRIB	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DC-US	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DL-REF	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUB-03	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] GL-TRIB	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DC-US	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DL-REF	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUB-03	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] GL-TRIB	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DC-US	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DL-REF	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUB-03	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GL-TRIB	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-US	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DL-REF	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUB-03	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GL-TRIB	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-US	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DL-REF	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUB-03	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GL-TRIB	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-US	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DL-REF	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUB-03	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) GL-TRIB	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-US	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DL-REF	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUB-03	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
GL-TRIB	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	972595	1	9	11.1	5.0	✓
Alkalinity Species by Titration	E290	968128	2	16	12.5	5.0	✓
Ammonia in Water by Colour	E303	968660	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	966885	0	5	0.0	5.0	✗
Conductivity in Water	E100	968127	3	42	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	968405	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	972396	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	968407	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	968409	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	968406	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	972917	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	966883	0	5	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	966884	0	5	0.0	5.0	✗
pH by Meter	E108	968126	2	39	5.1	5.0	✓
Sulfate in Water by IC	E235.SO4	966880	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	968020	1	5	20.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	968195	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	972916	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	972394	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	968194	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	975690	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	968196	0	5	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	968018	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	972915	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	972595	1	9	11.1	5.0	✓
Alkalinity Species by Titration	E290	968128	2	16	12.5	5.0	✓
Ammonia in Water by Colour	E303	968660	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	966885	1	5	20.0	5.0	✓
Conductivity in Water	E100	968127	3	42	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	968405	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	972396	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	968407	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	968409	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	968406	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	972917	1	10	10.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	966883	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	966884	1	5	20.0	5.0	✓
pH by Meter	E108	968126	2	39	5.1	5.0	✓
Sulfate in Water by IC	E235.SO4	966880	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	968020	1	5	20.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	968195	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	972916	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	972394	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	968194	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	975690	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	968196	1	5	20.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968018	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	972915	1	16	6.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	972595	1	9	11.1	5.0	✓
Alkalinity Species by Titration	E290	968128	2	16	12.5	5.0	✓
Ammonia in Water by Colour	E303	968660	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	966885	1	5	20.0	5.0	✓
Conductivity in Water	E100	968127	3	42	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	968405	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	972396	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	968407	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	968409	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	968406	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	972917	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	966883	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	966884	1	5	20.0	5.0	✓
Sulfate in Water by IC	E235.SO4	966880	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	968020	1	5	20.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	968195	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	972916	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	972394	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	968194	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	975690	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	968196	1	5	20.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968018	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	972915	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	968660	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	966885	0	5	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	968405	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	972396	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	968407	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	968409	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	968406	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	972917	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	966883	0	5	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	966884	0	5	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	966880	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	968195	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	972916	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	972394	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	968194	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	975690	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	968196	0	5	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	972915	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2310321**	Page	: 1 of 25
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 01-Jun-2023 09:42
PO	: ----	Date Analysis Commenced	: 01-Jun-2023
C-O-C number	: ----	Issue Date	: 09-Jun-2023 16:42
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 968018)											
WP2310312-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	4.1	4.5	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 968020)											
WP2310321-001	DL-REF	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	62.2	60.8	1.3	Diff <2x LOR	----
Physical Tests (QC Lot: 968126)											
WP2310287-001	Anonymous	pH	----	E108	0.10	pH units	8.41	8.30	1.32%	4%	----
Physical Tests (QC Lot: 968127)											
WP2310287-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1020	1020	0.294%	10%	----
Physical Tests (QC Lot: 968128)											
WP2310287-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	251	248	1.20%	20%	----
Physical Tests (QC Lot: 968737)											
WP2310321-004	DC-US	pH	----	E108	0.10	pH units	7.55	7.61	0.792%	4%	----
Physical Tests (QC Lot: 968738)											
WP2310321-004	DC-US	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.3	34.0	2.08%	20%	----
Physical Tests (QC Lot: 968739)											
WP2310321-004	DC-US	Conductivity	----	E100	1.0	µS/cm	71.5	71.2	0.420%	10%	----
Physical Tests (QC Lot: 972198)											
WP2310552-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	561	558	0.536%	10%	----
Physical Tests (QC Lot: 972595)											
WP2310312-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.2	3.6	0.6	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 966880)											
WP2310314-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	37.4	37.4	0.0514%	20%	----
Anions and Nutrients (QC Lot: 968660)											
WP2310236-002	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 975690)											
WP2310312-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0200	0.0203	1.64%	20%	----
Cyanides (QC Lot: 972915)											
WP2309400-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 972916)											
WP2309400-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0019	0.0019	0.00005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 972917)											
WP2309400-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 968409)											
WP2309451-005	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.48	8.53	0.639%	20%	----
Total Metals (QC Lot: 968194)											
WP2310319-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00062	0.00067	0.00005	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00054	0.00053	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00366	0.00368	0.480%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.187	0.186	0.605%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000112	0.0000135	0.0000022	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	1.14	1.14	0.202%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	1.14	1.17	2.73%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00589	0.00619	4.90%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0130	0.0118	10.1%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	0.357	0.355	0.431%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0193	0.0195	0.765%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00212	0.00221	4.34%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00276	0.00283	0.00007	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	2.43	2.46	1.22%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00068	0.00070	0.00001	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	9.16	9.13	0.284%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	243	246	1.34%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.00302	0.00336	10.5%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	35.4	36.1	1.84%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 968194) - continued											
WP2310319-003	Anonymous	Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00367	0.00419	13.2%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.390	0.396	1.53%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 972394)											
WP2310190-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 968405)											
WP2310312-002	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00032	0.00031	0.000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 968406)											
WP2310312-002	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 968407)											
WP2310312-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0590	0.0576	2.44%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00292	0.00287	1.70%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00737	0.00756	2.54%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	9.40	9.87	4.85%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00060	0.00057	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.274	0.265	3.58%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000117	0.000115	0.000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	0.0012	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	3.28	3.29	0.333%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00821	0.00817	0.474%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 968407) - continued											
WP2310312-002	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000148	0.000150	0.000002	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00056	0.00055	0.000007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.04	1.03	1.08%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00121	0.00121	0.000002	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000127	0.000088	0.000039	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.683	0.672	1.66%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.85	2.82	1.28%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0239	0.0227	5.36%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	0.52	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00113	0.00113	0.00000003	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000066	0.000064	0.000001	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 972371)											
WP2310321-004	DC-US	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0629	0.0628	0.243%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00168	0.00166	1.34%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00845	0.00989	15.6%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000092	0.0000099	0.0000007	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	9.21	9.19	0.225%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 972371) - continued											
WP2310321-004	DC-US	Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00074	0.00084	0.00010	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.321	0.345	7.42%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000080	0.000082	0.000001	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.88	3.04	5.11%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00790	0.00922	15.4%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000163	0.000168	0.000005	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.14	1.02	11.8%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00167	0.00165	0.00002	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000134	0.000181	0.000047	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.79	1.79	0.0932%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.29	1.44	11.2%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0242	0.0236	2.47%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00202	0.00218	0.00016	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000216	0.000214	0.939%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00078	0.00071	0.00006	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	0.00031	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 972373)											
WP2310321-004	DC-US	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00024	0.00029	0.00005	Diff <2x LOR	----
Dissolved Metals (QC Lot: 972374)											
WP2310321-004	DC-US	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 972396)											
WP2309926-010	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 975910)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 975910) - continued											
WP2310321-005	BLANK	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 968018)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 968020)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 968127)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 968128)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 968738)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 968739)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 972198)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 972595)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 966880)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 966883)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 966884)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 966885)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 968660)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 975690)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 972915)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 972916)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 972917)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 972917) - continued						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 968409)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 968194)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 968194) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 968195)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 968196)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 972394)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 968405)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 968406)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 968407)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 968407) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 972371)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 972371) - continued						
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 972373)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 972374)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 972396)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 975910)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 975910) - continued						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 968018)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	94.3	85.0	115	----
Physical Tests (QCLot: 968020)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	90.5	85.0	115	----
Physical Tests (QCLot: 968126)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 968127)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.6	90.0	110	----
Physical Tests (QCLot: 968128)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 968737)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 968738)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 968739)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.2	90.0	110	----
Physical Tests (QCLot: 972198)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.4	90.0	110	----
Physical Tests (QCLot: 972595)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 966880)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 966883)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 966884)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 966885)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 968660)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 975690)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 972915)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	100	80.0	120	----
Cyanides (QCLot: 972916)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	89.3	80.0	120	----
Cyanides (QCLot: 972917)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	94.2	80.0	120	----
Organic / Inorganic Carbon (QCLot: 968409)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.0	80.0	120	----
Total Metals (QCLot: 968194)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	107	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	112	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	111	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.3	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	103	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	108	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.6	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 968194) - continued									
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	98.1	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.3	80.0	120	----
Total Metals (QCLot: 968195)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 968196)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Total Metals (QCLot: 972394)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 968405)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 968407)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	114	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	108	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	106	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	106	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Dissolved Metals (QCLot: 968407) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	110	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	111	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	111	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	108	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	111	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	115	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	108	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	# 127	80.0	120	MES
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	108	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	107	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.8	80.0	120	----
Dissolved Metals (QCLot: 972371)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	94.1	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	94.1	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	93.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	92.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 972371) - continued									
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	95.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	90.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	89.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	92.8	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	93.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	# 78.5	80.0	120	MES
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	118	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	89.9	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	82.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	93.4	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	92.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	93.9	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	86.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	113	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	91.9	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.5	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	94.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	93.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.2	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	92.0	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.7	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	89.1	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	94.3	80.0	120	----
Dissolved Metals (QCLot: 972373)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	90.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	93.4	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	92.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 975910) - continued									
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	112	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 966880)										
WP2310314-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 968660)										
WP2310236-002	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.257 mg/L	0.25 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 975690)										
WP2310312-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.240 mg/L	0.25 mg/L	96.0	70.0	130	----
Cyanides (QCLot: 972915)										
WP2309400-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.115 mg/L	0.125 mg/L	92.2	75.0	125	----
Cyanides (QCLot: 972916)										
WP2309400-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.199 mg/L	0.25 mg/L	79.6	75.0	125	----
Cyanides (QCLot: 972917)										
WP2309400-001	Anonymous	Cyanide, free	----	E339-L	0.112 mg/L	0.125 mg/L	89.2	75.0	125	----
Organic / Inorganic Carbon (QCLot: 968409)										
WP2309451-006	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 968194)										
WP2310319-003	Anonymous	Aluminum, total	7429-90-5	E420	0.207 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	4.10 mg/L	4 mg/L	102	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.00 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0180 mg/L	0.02 mg/L	89.9	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 968194) - continued										
WP2310319-003	Anonymous	Lithium, total	7439-93-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Magnesium, total	7439-95-4	E420	0.973 mg/L	1 mg/L	97.3	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.16 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	9.68 mg/L	10 mg/L	96.8	70.0	130	----
		Silver, total	7440-22-4	E420	0.00402 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00359 mg/L	0.004 mg/L	89.7	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Tin, total	7440-31-5	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00385 mg/L	0.004 mg/L	96.2	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, total	7440-66-6	E420	0.376 mg/L	0.4 mg/L	93.9	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0452 mg/L	0.04 mg/L	113	70.0	130	----
Total Metals (QCLot: 972394)										
WP2310190-002	Anonymous	Mercury, total	7439-97-6	E508	0.000102 mg/L	0.0001 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 968405)										
WP2310312-002	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 968406)										
WP2310312-002	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.0 mg/L	10 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 968407)										
WP2310312-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.197 mg/L	0.2 mg/L	98.3	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 968407) - continued										
WP2310312-002	Anonymous	Barium, dissolved	7440-39-3	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.05 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0422 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.85 mg/L	10 mg/L	98.5	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.2 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0227 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00477 mg/L	0.004 mg/L	119	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.411 mg/L	0.4 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 968407) - continued										
WP2310312-002	Anonymous	Zirconium, dissolved	7440-67-7	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 972371)										
WP2310321-004	DC-US	Aluminum, dissolved	7429-90-5	E421	0.183 mg/L	0.2 mg/L	91.3	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0377 mg/L	0.04 mg/L	94.3	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00922 mg/L	0.01 mg/L	92.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.093 mg/L	0.1 mg/L	93.3	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00983 mg/L	0.01 mg/L	98.3	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0181 mg/L	0.02 mg/L	90.7	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0184 mg/L	0.02 mg/L	92.0	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.87 mg/L	2 mg/L	93.5	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0188 mg/L	0.02 mg/L	94.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0819 mg/L	0.1 mg/L	81.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0361 mg/L	0.04 mg/L	90.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.68 mg/L	10 mg/L	96.8	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.93 mg/L	4 mg/L	98.3	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.04 mg/L	10 mg/L	90.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00366 mg/L	0.004 mg/L	91.6	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.92 mg/L	2 mg/L	96.2	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.1 mg/L	20 mg/L	95.4	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00357 mg/L	0.004 mg/L	89.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 972371) - continued										
WP2310321-004	DC-US	Titanium, dissolved	7440-32-6	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00370 mg/L	0.004 mg/L	92.6	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0948 mg/L	0.1 mg/L	94.8	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.371 mg/L	0.4 mg/L	92.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 972373)										
WP2310321-004	DC-US	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	----
Dissolved Metals (QCLot: 972374)										
WP2310321-004	DC-US	Phosphorus, dissolved	7723-14-0	E421.P-L	9.68 mg/L	10 mg/L	96.8	70.0	130	----
Dissolved Metals (QCLot: 972396)										
WP2309926-011	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000995 mg/L	0.0001 mg/L	99.5	70.0	130	----
Dissolved Metals (QCLot: 975910)										
WP2310449-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] If received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q			Field pH	Field Temperature	Field Conductivity
	DL-REF	29-May-23	11:30	Water	9	X			7.69	19.72	0.063
	GL-TRIB	29-May-23	12:30	Water	9	X			7.28	21.98	0.068
	DUB-03	29-May-23	12:40	Water	9	X			7.28	21.98	0.068
	DC-US	29-May-23	1:10	Water	9	X			7.51	21.85	0.068
	Blank	29-May-23	1:30	Water	9	X			X	x	X
			JUN 0 1 2023								

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date:	Time:	Received by: SB	Date: JUN 01 2023	Time: 01:42	Received by:	Time:

20.1

Environmental Division
Winnipeg
Work Order Reference
WP2310321

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2310321**	Page	: 1 of 7
Amendment	: **1**		
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 01-Jun-2023 09:42
PO	: ----	Date Analysis Commenced	: 01-Jun-2023
C-O-C number	: ----	Issue Date	: 14-Jun-2023 12:42
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Amendment (14/06/2023): This report has been amended following changes to the analytical data reported. The quality system is being utilised to resolve this issue. The specific data affected includes a change to selenium results

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
						WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.69	7.28	7.28	7.51	----
Temperature, field	----	EF001/WP	0.10	°C		19.7	22.0	22.0	21.8	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.3	4.1	4.2	3.5	2.1
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		31.5	32.9	33.8	33.3	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		31.5	32.9	33.8	33.3	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		68.1	71.9	71.5	71.5	<1.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		34.7	35.8	35.8	34.8	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		36.0	37.2	37.9	37.6	<0.50
pH	----	E108/WP	0.10	pH units		7.48	7.49	7.48	7.55	5.43
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		62.2	63.2	67.8	63.8	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.1	12.1	17.4	4.4	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	<0.010	0.033	<0.010	<0.010
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.001	mg/L		----	----	----	----	nr
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.24	0.24	0.24	0.24	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0217	0.0142	0.0083	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0217	0.0142	0.0083	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0210	0.0330	0.0444	0.0242	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.79	0.83	0.83	0.86	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
						WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0010	0.0011	0.0010	0.0010	0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0010	0.0010	0.0011	0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		20.0	20.1	19.4	18.6	<0.50
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.140	0.294	0.367	0.161	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00169	0.00185	0.00192	0.00174	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00856	0.0105	0.0111	0.00920	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	0.000027	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000087	0.0000075	0.0000050	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.57	9.81	9.88	9.93	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000029	0.000039	0.000013	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00049	0.00081	0.00090	0.00057	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00081	0.00090	0.00057	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00011	0.00020	0.00022	0.00012	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00094	0.00112	0.00120	0.00096	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.448	0.635	0.709	0.492	<0.010
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000096	0.000189	0.000232	0.000141	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0019	0.0019	0.0015	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.94	3.08	3.22	3.11	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0138	0.0169	0.0207	0.0194	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000191	0.000195	0.000208	0.000184	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00066	0.00083	0.00100	0.00066	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.046	0.054	0.039	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	0.054	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.00	1.13	1.19	1.10	<0.050

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
						WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Total Metals										
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00179	0.00216	0.00248	0.00195	<0.00020
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000132	0.000091	0.000101	0.000123	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.28	2.22	2.55	2.18	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.49	1.46	2.25	1.45	<0.050
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0222	0.0231	0.0236	0.0229	<0.00020
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		0.00027	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00414	0.0117	0.0156	0.00598	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000220	0.000254	0.000257	0.000250	<0.000010
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00077	0.00128	0.00152	0.00091	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0033	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00028	0.00030	0.00035	0.00029	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0759	0.0682	0.0717	0.0629	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00147	0.00160	0.00164	0.00168	<0.00010
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00878	0.00871	0.00883	0.00845	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000092	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		8.97	9.46	9.32	9.21	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00042	0.00033	0.00040	0.00024	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
						WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00087	0.00084	0.00086	0.00074	<0.00020
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.262	0.344	0.344	0.321	<0.010
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000066	0.000099	0.000099	0.000080	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0011	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.99	2.97	3.05	2.88	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00762	0.00518	0.00440	0.00790	<0.00010
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000168	0.000168	0.000164	0.000163	<0.000050
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00063	0.00057	0.00055	<0.00050	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.968	0.987	0.996	1.14	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00165	0.00185	0.00179	0.00167	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000067	0.000090	0.000069	0.000130	0.000062
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.05	1.74	1.73	1.79	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.33	1.27	1.32	1.29	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0211	0.0214	0.0197	0.0242	<0.00020
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	0.57	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00127	0.00209	0.00220	0.00202	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000258	0.000263	0.000243	0.000216	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00050	0.00073	0.00078	0.00078	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0024	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DL-REF	GL-TRIB	DUB-03	DC-US	BLANK
					Client sampling date / time	29-May-2023 11:30	29-May-2023 12:30	29-May-2023 12:40	29-May-2023 13:10	29-May-2023 13:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2310321-001	WP2310321-002	WP2310321-003	WP2310321-004	WP2310321-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2310321**	Page	: 1 of 25
Amendment	: 1		
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 01-Jun-2023 09:42
PO	: ----	Issue Date	: 14-Jun-2023 12:42
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-MRG3-972371002	----	Lithium, dissolved	7439-93-2	E421	78.5 % MES	80.0-120%	Recovery less than lower control limit
Dissolved Metals	QC-MRG3-968405002	----	Uranium, dissolved	7440-61-1	E421	127 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) BLANK	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DC-US	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DL-REF	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUB-03	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) GL-TRIB	E303	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUB-03	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.Cl-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUB-03	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO3-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUB-03	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO2-L	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BLANK	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DC-US	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DL-REF	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUB-03	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] GL-TRIB	E235.SO4	29-May-2023	01-Jun-2023	----	----		01-Jun-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DC-US	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DL-REF	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUB-03	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GL-TRIB	E372-U	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DL-REF	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUB-03	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-TRIB	E339-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DL-REF	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUB-03	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-TRIB	E333-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DL-REF	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUB-03	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E336-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUB-03	E421.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GL-TRIB	E421.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK	E421.Cr-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DC-US	E421.Cr-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DC-US	E509	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DL-REF	E509	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUB-03	E509	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GL-TRIB	E509	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) BLANK	E509	29-May-2023	06-Jun-2023	----	----		07-Jun-2023	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DL-REF	E421	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUB-03	E421	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) GL-TRIB	E421	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK	E421	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-US	E421	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DL-REF	E421.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUB-03	E421.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) GL-TRIB	E421.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK	E421.P-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DC-US	E421.P-L	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) BLANK	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DC-US	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DL-REF	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DUB-03	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) GL-TRIB	EF001	29-May-2023	----	----	----		01-Jun-2023	----	----	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) BLANK	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DC-US	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DL-REF	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DUB-03	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GL-TRIB	E358-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE BLANK	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE DC-US	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE DL-REF	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE DUB-03	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE										
GL-TRIB	E283	29-May-2023	05-Jun-2023	----	----		06-Jun-2023	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BLANK	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DC-US	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DL-REF	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DUB-03	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
GL-TRIB	E290	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BLANK	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
DC-US	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
DL-REF	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUB-03	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] GL-TRIB	E100	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DC-US	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DL-REF	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUB-03	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] GL-TRIB	E108	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DC-US	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DL-REF	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUB-03	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] GL-TRIB	E162-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DC-US	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DL-REF	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUB-03	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GL-TRIB	E160-L	29-May-2023	----	----	----		02-Jun-2023	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-US	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DL-REF	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUB-03	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GL-TRIB	E420.Cr-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-US	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DL-REF	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUB-03	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GL-TRIB	E508	29-May-2023	05-Jun-2023	----	----		05-Jun-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-US	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DL-REF	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUB-03	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) GL-TRIB	E420	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-US	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DL-REF	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUB-03	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
GL-TRIB	E420.P-L	29-May-2023	02-Jun-2023	----	----		02-Jun-2023	180 days	4 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	972595	1	9	11.1	5.0	✓
Alkalinity Species by Titration	E290	968128	2	16	12.5	5.0	✓
Ammonia in Water by Colour	E303	968660	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	966885	0	5	0.0	5.0	×
Conductivity in Water	E100	968127	3	42	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	968405	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	972396	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	968407	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	968409	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	968406	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	972917	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	966883	0	5	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	966884	0	5	0.0	5.0	×
pH by Meter	E108	968126	2	39	5.1	5.0	✓
Sulfate in Water by IC	E235.SO4	966880	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	968020	1	5	20.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	968195	0	5	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	972916	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	972394	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	968194	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	975690	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	968196	0	5	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	968018	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	972915	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	972595	1	9	11.1	5.0	✓
Alkalinity Species by Titration	E290	968128	2	16	12.5	5.0	✓
Ammonia in Water by Colour	E303	968660	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	966885	1	5	20.0	5.0	✓
Conductivity in Water	E100	968127	3	42	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	968405	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	972396	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	968407	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	968409	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	968406	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	972917	1	10	10.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	966883	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	966884	1	5	20.0	5.0	✓
pH by Meter	E108	968126	2	39	5.1	5.0	✓
Sulfate in Water by IC	E235.SO4	966880	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	968020	1	5	20.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	968195	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	972916	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	972394	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	968194	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	975690	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	968196	1	5	20.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968018	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	972915	1	16	6.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	972595	1	9	11.1	5.0	✓
Alkalinity Species by Titration	E290	968128	2	16	12.5	5.0	✓
Ammonia in Water by Colour	E303	968660	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	966885	1	5	20.0	5.0	✓
Conductivity in Water	E100	968127	3	42	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	968405	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	972396	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	968407	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	968409	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	968406	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	972917	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	966883	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	966884	1	5	20.0	5.0	✓
Sulfate in Water by IC	E235.SO4	966880	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	968020	1	5	20.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	968195	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	972916	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	972394	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	968194	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	975690	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	968196	1	5	20.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	968018	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	972915	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	968660	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	966885	0	5	0.0	5.0	×
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	968405	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	972396	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	968407	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	968409	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	968406	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	972917	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	966883	0	5	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	966884	0	5	0.0	5.0	×
Sulfate in Water by IC	E235.SO4	966880	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	968195	0	5	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	972916	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	972394	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	968194	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	975690	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	968196	0	5	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	972915	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2310321**	Page	: 1 of 25
Amendment	: **1**		
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 01-Jun-2023 09:42
PO	: ----	Date Analysis Commenced	: 01-Jun-2023
C-O-C number	: ----	Issue Date	: 14-Jun-2023 12:44
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 968018)											
WP2310312-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	4.1	4.5	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 968020)											
WP2310321-001	DL-REF	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	62.2	60.8	1.3	Diff <2x LOR	----
Physical Tests (QC Lot: 968126)											
WP2310287-001	Anonymous	pH	----	E108	0.10	pH units	8.41	8.30	1.32%	4%	----
Physical Tests (QC Lot: 968127)											
WP2310287-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1020	1020	0.294%	10%	----
Physical Tests (QC Lot: 968128)											
WP2310287-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	251	248	1.20%	20%	----
Physical Tests (QC Lot: 968737)											
WP2310321-004	DC-US	pH	----	E108	0.10	pH units	7.55	7.61	0.792%	4%	----
Physical Tests (QC Lot: 968738)											
WP2310321-004	DC-US	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.3	34.0	2.08%	20%	----
Physical Tests (QC Lot: 968739)											
WP2310321-004	DC-US	Conductivity	----	E100	1.0	µS/cm	71.5	71.2	0.420%	10%	----
Physical Tests (QC Lot: 972198)											
WP2310552-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	561	558	0.536%	10%	----
Physical Tests (QC Lot: 972595)											
WP2310312-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.2	3.6	0.6	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 966880)											
WP2310314-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	37.4	37.4	0.0514%	20%	----
Anions and Nutrients (QC Lot: 968660)											
WP2310236-002	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 975690)											
WP2310312-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0200	0.0203	1.64%	20%	----
Cyanides (QC Lot: 972915)											
WP2309400-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 972916)											
WP2309400-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0019	0.0019	0.00005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 972917)											
WP2309400-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 968409)											
WP2309451-005	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.48	8.53	0.639%	20%	----
Total Metals (QC Lot: 968194)											
WP2310319-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00062	0.00067	0.00005	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00054	0.00053	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00366	0.00368	0.480%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.187	0.186	0.605%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000112	0.0000135	0.0000022	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	1.14	1.14	0.202%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	1.14	1.17	2.73%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00589	0.00619	4.90%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0130	0.0118	10.1%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	0.357	0.355	0.431%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0193	0.0195	0.765%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00212	0.00221	4.34%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00276	0.00283	0.00007	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	2.43	2.46	1.22%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00068	0.00070	0.00001	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	9.16	9.13	0.284%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	243	246	1.34%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.00302	0.00336	10.5%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	35.4	36.1	1.84%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 968194) - continued											
WP2310319-003	Anonymous	Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00367	0.00419	13.2%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.390	0.396	1.53%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 972394)											
WP2310190-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 968405)											
WP2310312-002	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00032	0.00031	0.000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 968406)											
WP2310312-002	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 968407)											
WP2310312-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0590	0.0576	2.44%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00292	0.00287	1.70%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00737	0.00756	2.54%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	9.40	9.87	4.85%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00060	0.00057	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.274	0.265	3.58%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000117	0.000115	0.000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	0.0012	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	3.28	3.29	0.333%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00821	0.00817	0.474%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 968407) - continued											
WP2310312-002	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000148	0.000150	0.000002	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00056	0.00055	0.000007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.04	1.03	1.08%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00121	0.00121	0.000002	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000127	0.000088	0.000039	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.683	0.672	1.66%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.85	2.82	1.28%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0239	0.0227	5.36%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	0.52	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00113	0.00113	0.00000003	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000066	0.000064	0.000001	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 972371)											
WP2310321-004	DC-US	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0629	0.0628	0.243%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00168	0.00166	1.34%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00845	0.00989	15.6%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000092	0.0000099	0.0000007	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	9.21	9.19	0.225%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 972371) - continued											
WP2310321-004	DC-US	Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00074	0.00084	0.00010	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.321	0.345	7.42%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000080	0.000082	0.000001	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.88	3.04	5.11%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00790	0.00922	15.4%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000163	0.000168	0.000005	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.14	1.02	11.8%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00167	0.00165	0.00002	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000130	0.000181	0.000051	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.79	1.79	0.0932%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.29	1.44	11.2%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0242	0.0236	2.47%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00202	0.00218	0.00016	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000216	0.000214	0.939%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00078	0.00071	0.00006	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	0.00031	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 972373)											
WP2310321-004	DC-US	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00024	0.00029	0.00005	Diff <2x LOR	----
Dissolved Metals (QC Lot: 972374)											
WP2310321-004	DC-US	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 972396)											
WP2309926-010	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 975910)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 975910) - continued											
WP2310321-005	BLANK	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 968018)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 968020)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 968127)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 968128)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 968738)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 968739)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 972198)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 972595)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 966880)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 966883)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 966884)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 966885)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 968660)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 975690)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 972915)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 972916)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 972917)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 972917) - continued						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 968409)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 968194)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 968194) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 968195)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 968196)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 972394)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 968405)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 968406)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 968407)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 968407) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 972371)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 972371) - continued						
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 972373)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 972374)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 972396)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 975910)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 975910) - continued						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 968018)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	94.3	85.0	115	----
Physical Tests (QCLot: 968020)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	90.5	85.0	115	----
Physical Tests (QCLot: 968126)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 968127)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.6	90.0	110	----
Physical Tests (QCLot: 968128)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 968737)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 968738)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 968739)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.2	90.0	110	----
Physical Tests (QCLot: 972198)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.4	90.0	110	----
Physical Tests (QCLot: 972595)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 966880)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 966883)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 966884)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 966885)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 968660)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 975690)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 972915)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	100	80.0	120	----
Cyanides (QCLot: 972916)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	89.3	80.0	120	----
Cyanides (QCLot: 972917)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	94.2	80.0	120	----
Organic / Inorganic Carbon (QCLot: 968409)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.0	80.0	120	----
Total Metals (QCLot: 968194)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	107	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	112	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	111	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.3	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	103	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	108	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.6	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 968194) - continued									
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	98.1	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.3	80.0	120	----
Total Metals (QCLot: 968195)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 968196)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Total Metals (QCLot: 972394)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 968405)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 968407)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	114	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	108	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	106	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	106	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 968407) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	110	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	111	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	111	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	108	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	111	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	115	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	108	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	# 127	80.0	120	MES
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	108	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	107	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.8	80.0	120	----
Dissolved Metals (QCLot: 972371)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	94.1	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	94.1	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	93.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	92.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 972371) - continued									
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	95.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	90.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	89.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	92.8	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	93.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	# 78.5	80.0	120	MES
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	118	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	89.9	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	82.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	93.4	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	92.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	93.9	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	86.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	113	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	91.9	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.5	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	94.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	93.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.2	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	92.0	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.7	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	89.1	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	94.3	80.0	120	----
Dissolved Metals (QCLot: 972373)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	90.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	93.4	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	92.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 975910) - continued									
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	112	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 966880)										
WP2310314-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 968660)										
WP2310236-002	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.257 mg/L	0.25 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 975690)										
WP2310312-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.240 mg/L	0.25 mg/L	96.0	70.0	130	----
Cyanides (QCLot: 972915)										
WP2309400-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.115 mg/L	0.125 mg/L	92.2	75.0	125	----
Cyanides (QCLot: 972916)										
WP2309400-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.199 mg/L	0.25 mg/L	79.6	75.0	125	----
Cyanides (QCLot: 972917)										
WP2309400-001	Anonymous	Cyanide, free	----	E339-L	0.112 mg/L	0.125 mg/L	89.2	75.0	125	----
Organic / Inorganic Carbon (QCLot: 968409)										
WP2309451-006	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 968194)										
WP2310319-003	Anonymous	Aluminum, total	7429-90-5	E420	0.207 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	4.10 mg/L	4 mg/L	102	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.00 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0180 mg/L	0.02 mg/L	89.9	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 968194) - continued										
WP2310319-003	Anonymous	Lithium, total	7439-93-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Magnesium, total	7439-95-4	E420	0.973 mg/L	1 mg/L	97.3	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.16 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	9.68 mg/L	10 mg/L	96.8	70.0	130	----
		Silver, total	7440-22-4	E420	0.00402 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00359 mg/L	0.004 mg/L	89.7	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Tin, total	7440-31-5	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00385 mg/L	0.004 mg/L	96.2	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, total	7440-66-6	E420	0.376 mg/L	0.4 mg/L	93.9	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0452 mg/L	0.04 mg/L	113	70.0	130	----
Total Metals (QCLot: 972394)										
WP2310190-002	Anonymous	Mercury, total	7439-97-6	E508	0.000102 mg/L	0.0001 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 968405)										
WP2310312-002	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 968406)										
WP2310312-002	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.0 mg/L	10 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 968407)										
WP2310312-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.197 mg/L	0.2 mg/L	98.3	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 968407) - continued										
WP2310312-002	Anonymous	Barium, dissolved	7440-39-3	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.05 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0422 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.85 mg/L	10 mg/L	98.5	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.2 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0227 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00477 mg/L	0.004 mg/L	119	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.411 mg/L	0.4 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 968407) - continued										
WP2310312-002	Anonymous	Zirconium, dissolved	7440-67-7	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 972371)										
WP2310321-004	DC-US	Aluminum, dissolved	7429-90-5	E421	0.183 mg/L	0.2 mg/L	91.3	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0377 mg/L	0.04 mg/L	94.3	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00922 mg/L	0.01 mg/L	92.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.093 mg/L	0.1 mg/L	93.3	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00983 mg/L	0.01 mg/L	98.3	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0181 mg/L	0.02 mg/L	90.7	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0184 mg/L	0.02 mg/L	92.0	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.87 mg/L	2 mg/L	93.5	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0188 mg/L	0.02 mg/L	94.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0819 mg/L	0.1 mg/L	81.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0361 mg/L	0.04 mg/L	90.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.68 mg/L	10 mg/L	96.8	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.93 mg/L	4 mg/L	98.3	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.04 mg/L	10 mg/L	90.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00366 mg/L	0.004 mg/L	91.6	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.92 mg/L	2 mg/L	96.2	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.1 mg/L	20 mg/L	95.4	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00357 mg/L	0.004 mg/L	89.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 972371) - continued										
WP2310321-004	DC-US	Titanium, dissolved	7440-32-6	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00370 mg/L	0.004 mg/L	92.6	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0948 mg/L	0.1 mg/L	94.8	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.371 mg/L	0.4 mg/L	92.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 972373)										
WP2310321-004	DC-US	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	----
Dissolved Metals (QCLot: 972374)										
WP2310321-004	DC-US	Phosphorus, dissolved	7723-14-0	E421.P-L	9.68 mg/L	10 mg/L	96.8	70.0	130	----
Dissolved Metals (QCLot: 972396)										
WP2309926-011	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000995 mg/L	0.0001 mg/L	99.5	70.0	130	----
Dissolved Metals (QCLot: 975910)										
WP2310449-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] If received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q			Field pH	Field Temperature	Field Conductivity
	DL-REF	29-May-23	11:30	Water	9	X			7.69	19.72	0.063
	GL-TRIB	29-May-23	12:30	Water	9	X			7.28	21.98	0.068
	DUB-03	29-May-23	12:40	Water	9	X			7.28	21.98	0.068
	DC-US	29-May-23	1:10	Water	9	X			7.51	21.85	0.068
	Blank	29-May-23	1:30	Water	9	X			X	x	X
			JUN 0 1 2023								

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date:	Time:	Received by: SB	Date: JUN 01 2023	Time: 01:42	Received by:	Time:

20.1

Environmental Division
Winnipeg
Work Order Reference
WP2310321

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2310873**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Jun-2023 14:20
PO	: ----	Date Analysis Commenced	: 06-Jun-2023
C-O-C number	: ----	Issue Date	: 15-Jun-2023 10:14
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-11	SW-04	SW-01	SW-TRAVEL BLANK	----
					Client sampling date / time	03-Jun-2023 12:20	03-Jun-2023 13:00	03-Jun-2023 14:00	03-Jun-2023	----
						WP2310873-001	WP2310873-002	WP2310873-003	WP2310873-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.93	7.32	6.93	----	----
Temperature, field	----	EF001/WP	0.10	°C		19.0	22.7	30.0	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		4.8	3.2	4.5	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		113	37.5	11.7	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		113	37.5	11.7	<1.0	----
Conductivity	----	E100/WP	1.0	µS/cm		203	79.3	40.4	<1.0	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		115	40.6	23.5	<0.50	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		124	43.1	24.0	<0.50	----
pH	----	E108/WP	0.10	pH units		7.61	7.57	6.84	5.44	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		184	71.0	44.1	<3.0	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		9.5	13.4	2.0	<1.0	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.080	0.044	0.017	1.06	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.86	0.35	0.12	<0.10	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0125	0.0252	<0.0050	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0146	0.0267	<0.0051	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0021	0.0015	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0903	0.0392	0.0235	<0.0020	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.56	0.87	0.76	<0.30	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0020	<0.0010	0.0014	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0023	<0.0010	0.0018	<0.0010	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-11	SW-04	SW-01	SW-TRAVEL BLANK	----
					Client sampling date / time	03-Jun-2023 12:20	03-Jun-2023 13:00	03-Jun-2023 14:00	03-Jun-2023	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2310873-001	WP2310873-002	WP2310873-003	WP2310873-004	--------
						Result	Result	Result	Result	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0020	0.0010	0.0015	<0.0010	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		38.1	17.9	37.0	<0.50	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.257	0.447	0.271	<0.0030	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00015	<0.00010	0.00013	<0.00010	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00806	0.00224	0.00539	<0.00010	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0257	0.0134	0.00677	<0.00010	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000052	0.000023	<0.000020	<0.000020	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.010	<0.010	<0.010	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000370	0.0000098	0.0000095	<0.0000050	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		31.9	11.5	6.63	<0.050	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000013	0.000050	<0.000010	<0.000010	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00111	0.00102	0.00070	<0.00010	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00111	0.00102	0.00070	<0.00050	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00185	0.00032	0.00020	<0.00010	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00157	0.00122	0.00073	<0.00050	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.868	0.900	0.633	<0.010	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000137	0.000266	0.000144	<0.000050	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0045	0.0029	0.0016	<0.0010	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		10.7	3.49	1.82	<0.0050	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.696	0.0599	0.0184	<0.00010	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000055	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000965	0.000211	0.000098	<0.000050	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00364	0.00106	0.00085	<0.00050	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.051	0.039	<0.030	<0.030	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.051	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.84	1.20	0.286	<0.050	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00283	0.00263	0.00089	<0.00020	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-11	SW-04	SW-01	SW-TRAVEL BLANK	----
					Client sampling date / time	03-Jun-2023 12:20	03-Jun-2023 13:00	03-Jun-2023 14:00	03-Jun-2023	----
						WP2310873-001	WP2310873-002	WP2310873-003	WP2310873-004	--------
						Result	Result	Result	Result	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000273	0.000128	0.000125	<0.000050	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		6.10	2.70	0.23	<0.10	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		4.39	1.59	1.37 RRV	<0.050	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0760	0.0271	0.0192	<0.00020	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.53	0.66	0.83	<0.50	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000013	<0.000010	<0.000010	<0.000010	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00023	<0.00010	0.00010	<0.00010	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0104	0.0196	0.00384	<0.00030	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000222	0.000260	0.000082	<0.000010	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00233	0.00168	0.00079	<0.00050	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0103	<0.0030	<0.0030	<0.0030	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00127	0.00042	0.00037	<0.00020	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.157	0.0472	0.253	<0.0010	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00015	<0.00010	0.00016	<0.00010	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00787	0.00194	0.00525	<0.00010	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0253	0.0104	0.00688	<0.00010	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000037	<0.000020	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.017	0.011	<0.010	<0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000356	<0.0000050	0.0000067	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		30.1	11.0	6.57	<0.050	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00090	0.00032	0.00067	<0.00010	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00090	<0.00050	0.00067	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00159	0.00010	0.00018	<0.00010	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-11	SW-04	SW-01	SW-TRAVEL BLANK	----
					Client sampling date / time	03-Jun-2023 12:20	03-Jun-2023 13:00	03-Jun-2023 14:00	03-Jun-2023	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2310873-001	WP2310873-002	WP2310873-003	WP2310873-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00137	0.00082	0.00096	<0.00020	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.612	0.337	0.524	<0.010	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000077	0.000092	0.000131	<0.000050	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0040	0.0018	0.0013	<0.0010	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		9.75	3.18	1.72	<0.0050	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.642	0.0472	0.0177	<0.00010	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000946	0.000208	0.000110	<0.000050	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00344	0.00057	0.00086	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.89	1.09	0.312	<0.050	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00254	0.00178	0.00092	<0.00020	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000266	0.000095	0.000175	<0.000050	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		5.76	1.85	0.172	<0.050	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		4.07	1.45	2.00 RRV	<0.050	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0710	0.0254	0.0182	<0.00020	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00024	<0.00010	0.00011	<0.00010	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00552	0.00156	0.00316	<0.00030	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000204	0.000212	0.000073	<0.000010	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00197	0.00086	0.00076	<0.00050	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0108	<0.0010	0.0021	<0.0010	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00139	0.00032	0.00047	<0.00030	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-11	SW-04	SW-01	SW-TRAVEL BLANK	----
					Client sampling date / time	03-Jun-2023 12:20	03-Jun-2023 13:00	03-Jun-2023 14:00	03-Jun-2023	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2310873-001	WP2310873-002	WP2310873-003	WP2310873-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2310873**	Page	: 1 of 21
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Jun-2023 14:20
PO	: ----	Issue Date	: 15-Jun-2023 10:14
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-01	E303	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-04	E303	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-11	E303	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E303	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.Cl-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.Cl-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.Cl-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO3-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO3-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO3-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.NO3-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO2-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO2-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO2-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.NO2-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-01	E235.SO4	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-04	E235.SO4	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-11	E235.SO4	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.SO4	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	03-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	03-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	03-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E372-U	03-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TRAVEL BLANK	E339-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E339-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E333-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E336-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E336-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E336-L	03-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-01	E421.Cr-L	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-04	E421.Cr-L	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-11	E421.Cr-L	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.Cr-L	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-TRAVEL BLANK	E509	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-01	E421	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-04	E421	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-11	E421	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TRAVEL BLANK	E421	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-01	E421.P-L	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-11	E421.P-L	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TRAVEL BLANK	E421.P-L	03-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	03-Jun-2023	----	----	----		06-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	03-Jun-2023	----	----	----		06-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	03-Jun-2023	----	----	----		06-Jun-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-11	E358-L	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TRAVEL BLANK	E358-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-01	E283	03-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-04	E283	03-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-11	E283	03-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TRAVEL BLANK	E283	03-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-11	E290	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TRAVEL BLANK	E290	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TRAVEL BLANK	E100	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TRAVEL BLANK	E108	03-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E162-L	03-Jun-2023	----	----	----		08-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	03-Jun-2023	----	----	----		09-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	03-Jun-2023	----	----	----		09-Jun-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	03-Jun-2023	----	----	----		09-Jun-2023	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	03-Jun-2023	----	----	----		07-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	03-Jun-2023	----	----	----		07-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	03-Jun-2023	----	----	----		07-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TRAVEL BLANK	E160-L	03-Jun-2023	----	----	----		07-Jun-2023	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420.Cr-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TRAVEL BLANK	E508	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-11	E420.P-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TRAVEL BLANK	E420.P-L	03-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	5 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	979199	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	976409	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	976949	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	976200	0	14	0.0	5.0	✗
Conductivity in Water	E100	976407	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	980457	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	978287	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	980459	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	976821	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	980458	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	983919	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	976201	0	11	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	976202	0	11	0.0	5.0	✗
pH by Meter	E108	976408	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	976197	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	978781	2	23	8.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	978193	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	983917	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	978216	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	978192	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	979071	1	18	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	978194	0	9	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	974850	2	23	8.7	5.0	✓
WAD Cyanide (Low Level)	E336-L	983918	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	979199	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	976409	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	976949	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	976200	1	14	7.1	5.0	✓
Conductivity in Water	E100	976407	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	980457	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	978287	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	980459	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	976821	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	980458	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	983919	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	976201	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	976202	1	11	9.0	5.0	✓
pH by Meter	E108	976408	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	976197	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	978781	2	23	8.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	978193	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	983917	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	978216	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	978192	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	979071	1	18	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	978194	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	974850	2	23	8.7	5.0	✓
WAD Cyanide (Low Level)	E336-L	983918	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	979199	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	976409	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	976949	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	976200	1	14	7.1	5.0	✓
Conductivity in Water	E100	976407	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	980457	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	978287	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	980459	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	976821	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	980458	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	983919	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	976201	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	976202	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	976197	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	978781	2	23	8.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	978193	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	983917	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	978216	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	978192	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	979071	1	18	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	978194	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	974850	2	23	8.7	5.0	✓
WAD Cyanide (Low Level)	E336-L	983918	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	976949	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	976200	0	14	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	980457	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	978287	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	980459	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	976821	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	980458	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	983919	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	976201	0	11	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	976202	0	11	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	976197	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	978193	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	983917	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	978216	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	978192	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	979071	1	18	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	978194	0	9	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	983918	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2310873**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Jun-2023 14:20
PO	: ----	Date Analysis Commenced	: 06-Jun-2023
C-O-C number	: ----	Issue Date	: 15-Jun-2023 10:14
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 974849)											
WP2310732-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	2.2	2.3	0.1	Diff <2x LOR	----
Physical Tests (QC Lot: 974850)											
WP2310873-002	SW-04	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	13.4	13.7	1.96%	20%	----
Physical Tests (QC Lot: 976407)											
WP2310863-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1380	1350	2.13%	10%	----
Physical Tests (QC Lot: 976408)											
WP2310873-001	SW-11	pH	----	E108	0.10	pH units	7.61	7.59	0.263%	4%	----
Physical Tests (QC Lot: 976409)											
WP2310873-001	SW-11	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	113	113	0.443%	20%	----
Physical Tests (QC Lot: 978781)											
WP2310754-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	1020	1030	0.635%	20%	----
Physical Tests (QC Lot: 979199)											
WP2310633-028	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 979274)											
WP2310715-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	51.7	44.0	7.7	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 976197)											
WP2309989-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	129	129	0.124%	20%	----
Anions and Nutrients (QC Lot: 976949)											
WP2310863-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.237	0.222	6.33%	20%	----
Anions and Nutrients (QC Lot: 979071)											
WP2310872-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0180	0.0170	0.0011	Diff <2x LOR	----
Cyanides (QC Lot: 983917)											
WP2310735-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 983918)											
WP2310735-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 983919)											
WP2310735-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 976821)											
TY2304806-016	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	43.2	46.5	7.26%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 978415)											
TY2304827-006	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	23.6	24.0	2.07%	20%	----
Total Metals (QC Lot: 978192)											
WP2310821-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0300	mg/L	23.0	22.7	1.57%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00128	0.00123	3.71%	20%	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00318	0.00315	0.901%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0328	0.0308	6.40%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.00613	0.00623	1.66%	20%	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	1.08	1.08	0.280%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.189	0.187	0.776%	20%	----
		Calcium, total	7440-70-2	E420	1.00	mg/L	498	484	2.77%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000019	0.000020	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.0291	0.0292	0.435%	20%	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.406	0.409	0.744%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.393	0.398	1.31%	20%	----
		Iron, total	7439-89-6	E420	0.100	mg/L	310	310	0.0723%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00459	0.00446	2.87%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0843	0.0836	0.888%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	89.1	89.3	0.210%	20%	----
		Manganese, total	7439-96-5	E420	0.00100	mg/L	13.3	13.4	0.902%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00420	0.00420	0.158%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	2.28	2.28	0.0479%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.288	0.296	0.008	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	55.2	55.5	0.431%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0746	0.0738	1.10%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.00184	0.00182	0.960%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	36.2	35.4	2.08%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000144	0.000131	9.47%	20%	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	99.1	101	1.94%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.744	0.741	0.402%	20%	----
		Sulfur, total	7704-34-9	E420	5.00	mg/L	887	855	3.68%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000209	0.000204	2.28%	20%	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00037	0.00023	0.00013	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 978192) - continued											
WP2310821-003	Anonymous	Tin, total	7440-31-5	E420	0.00010	mg/L	0.00029	0.00028	0.000005	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00338	0.00356	5.27%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00083	0.00081	0.00002	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00181	0.00176	3.00%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00202	0.00210	0.00007	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0300	mg/L	11.5	11.4	0.956%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00190	0.00176	0.00014	Diff <2x LOR	----
Total Metals (QC Lot: 978216)											
WP2310593-008	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 978287)											
WP2310589-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 980457)											
WP2310872-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00046	0.00045	0.000009	Diff <2x LOR	----
Dissolved Metals (QC Lot: 980458)											
WP2310872-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 980459)											
WP2310872-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0884	0.0895	1.34%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00094	0.00095	0.000008	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00907	0.00907	0.0246%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000036	0.000044	0.000008	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000134	0.0000139	0.0000005	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	6.66	6.58	1.06%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00494	0.00499	0.939%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00140	0.00143	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	2.15	2.14	0.286%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000190	0.000188	0.000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	1.20	1.22	2.06%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.310	0.310	0.137%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 980459) - continued											
WP2310872-001	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000152	0.000138	0.000014	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00074	0.00074	0.000006	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.713	0.730	2.34%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00345	0.00335	2.95%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	0.000084	0.000034	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8.74	8.60	1.53%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.55	1.56	0.327%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0362	0.0359	1.07%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000028	0.000026	0.000002	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	0.00059	0.00060	0.000002	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00423	0.00434	2.37%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000242	0.000240	0.781%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00090	0.00088	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0021	0.0020	0.00004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00087	0.00083	0.00004	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 974849)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 974850)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 976407)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 976409)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 978781)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 979199)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 979274)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 976197)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 976200)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 976201)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 976202)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 976949)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 979071)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 983917)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 983918)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 983919)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 976821)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 976821) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 978415)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 978192)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 978192) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 978193)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 978194)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 978216)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 978287)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 980457)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 980458)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 980459)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 980459) - continued						
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 974849)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	104	85.0	115	----
Physical Tests (QCLot: 974850)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 976407)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.8	90.0	110	----
Physical Tests (QCLot: 976408)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 976409)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 978781)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.4	85.0	115	----
Physical Tests (QCLot: 979199)									
Acidity (as CaCO3)	----	E283	2	mg/L	250 mg/L	98.5	85.0	115	----
Physical Tests (QCLot: 979274)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	88.4	85.0	115	----
Anions and Nutrients (QCLot: 976197)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 976200)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.1	90.0	110	----
Anions and Nutrients (QCLot: 976201)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.3	90.0	110	----
Anions and Nutrients (QCLot: 976202)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.3	90.0	110	----
Anions and Nutrients (QCLot: 976949)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	99.0	85.0	115	----
Anions and Nutrients (QCLot: 979071)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.7	80.0	120	----
Cyanides (QCLot: 983917)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	89.2	80.0	120	----
Cyanides (QCLot: 983918)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 983918) - continued									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	95.7	80.0	120	----
Cyanides (QCLot: 983919)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	94.2	80.0	120	----
Organic / Inorganic Carbon (QCLot: 976821)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	93.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 978415)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	92.6	80.0	120	----
Total Metals (QCLot: 978192)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.4	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	95.7	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	94.7	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	94.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	108	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	90.8	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	108	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	94.2	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.6	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.3	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	92.2	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	92.4	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	92.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	106	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	94.3	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	95.0	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	92.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	93.9	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	92.1	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	100.0	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	94.6	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 978192) - continued									
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	99.5	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.6	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.1	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	96.2	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	88.7	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	93.5	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	94.1	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	95.0	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	91.5	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	89.9	80.0	120	----
Total Metals (QCLot: 978193)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	92.2	80.0	120	----
Total Metals (QCLot: 978194)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	93.9	80.0	120	----
Total Metals (QCLot: 978216)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.1	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	96.3	80.0	120	----
Dissolved Metals (QCLot: 980457)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 980459)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.4	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.6	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	94.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 980459) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	107	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	99.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.7	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.5	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.3	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	93.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.4	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	98.0	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.7	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 976197)										
WP2309989-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	100 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 976949)										
WP2310863-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.243 mg/L	0.25 mg/L	97.2	75.0	125	----
Anions and Nutrients (QCLot: 979071)										
WP2310872-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.241 mg/L	0.25 mg/L	96.4	70.0	130	----
Cyanides (QCLot: 983917)										
WP2310735-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	2.63 mg/L	2.5 mg/L	105	75.0	125	----
Cyanides (QCLot: 983918)										
WP2310735-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0990 mg/L	0.125 mg/L	79.2	75.0	125	----
Cyanides (QCLot: 983919)										
WP2310735-001	Anonymous	Cyanide, free	----	E339-L	0.101 mg/L	0.125 mg/L	80.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 976821)										
TY2304806-017	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 978415)										
TY2304827-007	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 978192)										
WP2310821-003	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0457 mg/L	0.04 mg/L	114	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00940 mg/L	0.01 mg/L	94.0	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0387 mg/L	0.04 mg/L	96.7	70.0	130	----
		Cobalt, total	7440-48-4	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 978192) - continued										
WP2310821-003	Anonymous	Iron, total	7439-89-6	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0179 mg/L	0.02 mg/L	89.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, total	7440-02-0	E420	ND mg/L	0.04 mg/L	ND	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.8 mg/L	10 mg/L	108	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0520 mg/L	0.04 mg/L	130	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00376 mg/L	0.004 mg/L	94.1	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00355 mg/L	0.004 mg/L	88.8	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Tin, total	7440-31-5	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00361 mg/L	0.004 mg/L	90.2	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, total	7440-66-6	E420	ND mg/L	0.4 mg/L	ND	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0442 mg/L	0.04 mg/L	110	70.0	130	----
Total Metals (QCLot: 978216)										
WP2310742-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000979 mg/L	0.0001 mg/L	97.9	70.0	130	----
Dissolved Metals (QCLot: 978287)										
WP2310589-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000952 mg/L	0.0001 mg/L	95.2	70.0	130	----
Dissolved Metals (QCLot: 980457)										
WP2310872-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 980458)										
WP2310872-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.0 mg/L	10 mg/L	100	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 980459)										
WP2310872-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.192 mg/L	0.2 mg/L	95.8	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0219 mg/L	0.02 mg/L	110	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0442 mg/L	0.04 mg/L	110	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00966 mg/L	0.01 mg/L	96.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.111 mg/L	0.1 mg/L	111	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Iron, dissolved	7439-89-6	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.15 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0188 mg/L	0.02 mg/L	94.2	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.11 mg/L	2 mg/L	106	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.5 mg/L	20 mg/L	103	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 980459) - continued										
WP2310872-001	Anonymous	Uranium, dissolved	7440-61-1	E421	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.396 mg/L	0.4 mg/L	98.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer **Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
	SW-11	June 3 2023	12:20	Water	9	X			6.93	18.95	0.209 mS
	SW-04	June 3 2023	13:00	Water	9	X			7.32	22.72	0.078 mS
	SW-01	June 3 2023	14:00	Water	9	X			6.93	29.97	0.040 mS
	SW-Travel Blank	June 3 2023	N/A	Water	9	X					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:
E Meek	June 5/23	8am	SP	JUN 06 2023	2:20	

22.8

10673

Environmental Division
Winnipeg
Work Order Reference
WP2310873

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2310937**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Jun-2023 08:46
PO	: ----	Date Analysis Commenced	: 07-Jun-2023
C-O-C number	: ----	Issue Date	: 15-Jun-2023 15:45
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-08A	SW-03	SW-08	SW-FIELD01
					Client sampling date / time	05-Jun-2023 09:10	05-Jun-2023 10:30	05-Jun-2023 11:30	05-Jun-2023 12:30	05-Jun-2023 09:30
						WP2310937-001	WP2310937-002	WP2310937-003	WP2310937-004	WP2310937-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		5.31	7.31	7.74	7.59	----
Temperature, field	----	EF001/WP	0.10	°C		22.4	20.2	21.2	22.9	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		20.0	7.5	5.3	4.5	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	67.5	131	41.7	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	67.5	131	41.7	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		27.3	160	234	88.8	<1.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		8.42	82.5	126	44.8	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		8.90	88.0	130	51.1	<0.50
pH	----	E108/WP	0.10	pH units		4.62	7.73	8.14	7.57	5.44
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		30.9	152	154	57.0	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.4	25.4	5.4	29.0	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.017	0.029	0.024	0.061	0.018
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0011	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.11	5.05	0.93	0.53	0.13
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0125	0.0897	0.149	0.0612	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0125	0.0909	0.152	0.0645	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0012	0.0027	0.0033	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0240	0.0605	0.0279	0.0547	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.85	5.37	2.82	1.11	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0010	<0.0010	0.0013	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0011	0.0011	0.0014	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-08A	SW-03	SW-08	SW-FIELD01
					Client sampling date / time	05-Jun-2023 09:10	05-Jun-2023 10:30	05-Jun-2023 11:30	05-Jun-2023 12:30	05-Jun-2023 09:30
						WP2310937-001	WP2310937-002	WP2310937-003	WP2310937-004	WP2310937-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0011	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		26.0	31.1	12.4	18.3	0.91
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.522	1.28	0.316	0.886	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00016	0.00012	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00570	0.00439	0.00200	0.00261	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00628	0.0231	0.0227	0.0180	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000029	0.000061	0.000020	0.000042	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	0.019	0.011	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000218	0.0000155	0.0000071	0.0000094	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		2.22	23.3	36.7	13.3	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000021	0.000129	0.000024	0.000103	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00065	0.00255	0.00067	0.00183	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00065	0.00255	0.00067	0.00183	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00038	0.00068	0.00017	0.00054	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00065	0.00264	0.00179 RRV	0.00182	<0.00050 RRV
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.829	1.83	0.341	1.39	<0.010
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000340	0.000475	0.000123	0.000441	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0049	0.0067	0.0037	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		0.816	7.23	9.44	4.34	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0143	0.0688	0.0246	0.0786	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000077	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000065	0.000656	0.00100	0.000247	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00078	0.00300	0.00148	0.00179	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.056	<0.030	0.059	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.056	<0.050	0.059	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.131	1.69	2.24	1.32	<0.050
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00059	0.00397	0.00138	0.00370	<0.00020

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-08A	SW-03	SW-08	SW-FIELD01
					Client sampling date / time	05-Jun-2023 09:10	05-Jun-2023 10:30	05-Jun-2023 11:30	05-Jun-2023 12:30	05-Jun-2023 09:30
						WP2310937-001	WP2310937-002	WP2310937-003	WP2310937-004	WP2310937-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000116	0.000184	0.000141	0.000129	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.80	8.54	6.56	4.08	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	0.000016	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		0.852	5.28	3.15	1.95	<0.050
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0130	0.0586	0.0554	0.0305	<0.00020
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.91	2.24	1.61	0.83	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000017	0.000010	0.000017	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00010	0.00028	0.00010	0.00012	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00597	0.0556	0.0126	0.0406	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	0.00032	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000079	0.000828	0.00134	0.000301	<0.000010
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00107	0.00372	0.00206	0.00279	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0049	0.0082	<0.0030	0.0038	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00032	0.00124	0.00054	0.00057	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.467	0.146	0.0350	0.0538	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00018	0.00015	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00544	0.00407	0.00198	0.00224	<0.00010
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00632	0.0148	0.0207	0.0118	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	0.018	0.017	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000193	0.0000060	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		2.14	22.4	35.8	12.1	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.000017	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00068	0.00078	0.00032	0.00035	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00068	0.00078	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00038	0.00028	<0.00010	0.00013	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-08A	SW-03	SW-08	SW-FIELD01
					Client sampling date / time	05-Jun-2023 09:10	05-Jun-2023 10:30	05-Jun-2023 11:30	05-Jun-2023 12:30	05-Jun-2023 09:30
						WP2310937-001	WP2310937-002	WP2310937-003	WP2310937-004	WP2310937-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00120	0.00178	0.00293 RRV	0.00111	0.00084 RRV
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.718	0.618	0.080	0.364	<0.010
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000332	0.000082	<0.000050	0.000116	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0011	0.0033	0.0059	0.0019	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		0.746	6.46	8.84	3.54	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0140	0.0521	0.0183	0.0595	<0.00010
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000057	0.0000065	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000059	0.000643	0.00103	0.000262	<0.000050
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00078	0.00193	0.00130	0.00076	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.131	1.51	2.23	1.18	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00051	0.00175	0.00090	0.00201	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000124	0.000204	0.000227	0.000125	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.65	5.81	5.59	2.34	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		0.823	4.98	2.98	1.67	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0121	0.0541	0.0547	0.0286	<0.00020
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	1.91	1.04	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00011	0.00019	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00515	0.00518	0.00098	0.00215	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	0.00034	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000064	0.000741	0.00128	0.000225	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00090	0.00161	0.00148	0.00113	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0054	0.0048	0.0025	0.0010	0.0011
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00037	0.00095	0.00052	0.00042	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-TR	SW-08A	SW-03	SW-08	SW-FIELD01
					Client sampling date / time	05-Jun-2023 09:10	05-Jun-2023 10:30	05-Jun-2023 11:30	05-Jun-2023 12:30	05-Jun-2023 09:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2310937-001	WP2310937-002	WP2310937-003	WP2310937-004	WP2310937-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2310937**	Page	: 1 of 24
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Jun-2023 08:46
PO	: ----	Issue Date	: 15-Jun-2023 15:57
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-03	E303	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-08	E303	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-08A	E303	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-FIELD01	E303	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-TR	E303	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.Cl-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.Cl-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD01	E235.Cl-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.Cl-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO3-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO3-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD01	E235.NO3-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO3-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO2-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO2-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO2-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD01	E235.NO2-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO2-L	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-03	E235.SO4	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08	E235.SO4	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08A	E235.SO4	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-FIELD01	E235.SO4	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TR	E235.SO4	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-03	E372-U	05-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	05-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08A	E372-U	05-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-FIELD01	E372-U	05-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	05-Jun-2023	08-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-03	E339-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08A	E339-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-FIELD01	E339-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TR	E339-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-03	E333-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E333-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08A	E333-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-FIELD01	E333-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TR	E333-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-03	E336-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E336-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08A	E336-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-FIELD01	E336-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TR	E336-L	05-Jun-2023	12-Jun-2023	----	----		12-Jun-2023	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-03	E421.Cr-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08	E421.Cr-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08A	E421.Cr-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-FIELD01	E421.Cr-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TR	E421.Cr-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08A	E509	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-FIELD01	E509	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-TR	E509	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-03	E421	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-08	E421	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-08A	E421	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-FIELD01	E421	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TR	E421	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-03	E421.P-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08A	E421.P-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-FIELD01	E421.P-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-03	EF001	05-Jun-2023	----	----	----		07-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	05-Jun-2023	----	----	----		07-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08A	EF001	05-Jun-2023	----	----	----		07-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-TR	EF001	05-Jun-2023	----	----	----		07-Jun-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-03	E358-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TR	E358-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-FIELD01	E358-L	05-Jun-2023	09-Jun-2023	----	----		09-Jun-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-03	E283	05-Jun-2023	12-Jun-2023	----	----		13-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	05-Jun-2023	12-Jun-2023	----	----		13-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08A	E283	05-Jun-2023	12-Jun-2023	----	----		13-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-FIELD01	E283	05-Jun-2023	12-Jun-2023	----	----		13-Jun-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	05-Jun-2023	12-Jun-2023	----	----		13-Jun-2023	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-03	E290	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08A	E290	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-FIELD01	E290	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08A	E100	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELD01	E100	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08A	E108	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELD01	E108	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	05-Jun-2023	07-Jun-2023	----	----		07-Jun-2023	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	05-Jun-2023	----	----	----		09-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	05-Jun-2023	----	----	----		09-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08A	E162-L	05-Jun-2023	----	----	----		09-Jun-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-FIELD01	E162-L	05-Jun-2023	----	----	----		09-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	05-Jun-2023	----	----	----		09-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	05-Jun-2023	----	----	----		08-Jun-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	05-Jun-2023	----	----	----		08-Jun-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	05-Jun-2023	----	----	----		08-Jun-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELD01	E160-L	05-Jun-2023	----	----	----		08-Jun-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	05-Jun-2023	----	----	----		08-Jun-2023	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD01	E420.Cr-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELD01	E508	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	28 days	3 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD01	E420	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELD01	E420.P-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	05-Jun-2023	08-Jun-2023	----	----		08-Jun-2023	180 days	3 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	983548	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	976409	2	25	8.0	5.0	✓
Ammonia in Water by Colour	E303	976949	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	976200	0	14	0.0	5.0	✗
Conductivity in Water	E100	976407	2	26	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	980457	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	980848	1	17	5.8	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	980459	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	979224	3	41	7.3	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	980458	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	983919	2	23	8.7	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	976201	0	11	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	976202	0	11	0.0	5.0	✗
pH by Meter	E108	976408	2	30	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	976197	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	979274	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	978193	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	983917	2	27	7.4	5.0	✓
Total Mercury in Water by CVAAS	E508	978216	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	978192	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	979071	1	18	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	978194	0	9	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	979263	1	13	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	983918	2	23	8.7	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	983548	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	976409	2	25	8.0	5.0	✓
Ammonia in Water by Colour	E303	976949	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	976200	1	14	7.1	5.0	✓
Conductivity in Water	E100	976407	2	26	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	980457	2	11	18.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	980848	1	17	5.8	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	980459	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	979224	3	41	7.3	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	980458	2	11	18.1	5.0	✓
Free Cyanide (Low Level)	E339-L	983919	2	23	8.7	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	976201	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	976202	1	11	9.0	5.0	✓
pH by Meter	E108	976408	2	30	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	976197	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	979274	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	978193	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	983917	2	27	7.4	5.0	✓
Total Mercury in Water by CVAAS	E508	978216	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	978192	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	979071	1	18	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	978194	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	979263	1	13	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	983918	2	23	8.7	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	983548	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	976409	2	25	8.0	5.0	✓
Ammonia in Water by Colour	E303	976949	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	976200	1	14	7.1	5.0	✓
Conductivity in Water	E100	976407	2	26	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	980457	2	11	18.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	980848	1	17	5.8	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	980459	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	979224	3	41	7.3	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	980458	2	11	18.1	5.0	✓
Free Cyanide (Low Level)	E339-L	983919	2	23	8.7	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	976201	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	976202	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	976197	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	979274	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	978193	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	983917	2	27	7.4	5.0	✓
Total Mercury in Water by CVAAS	E508	978216	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	978192	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	979071	1	18	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	978194	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	979263	1	13	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	983918	2	23	8.7	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	976949	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	976200	0	14	0.0	5.0	×
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	980457	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	980848	1	17	5.8	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	980459	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	979224	3	41	7.3	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	980458	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	983919	2	23	8.7	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	976201	0	11	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	976202	0	11	0.0	5.0	×
Sulfate in Water by IC	E235.SO4	976197	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	978193	0	9	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	983917	2	27	7.4	5.0	✓
Total Mercury in Water by CVAAS	E508	978216	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	978192	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	979071	1	18	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	978194	0	9	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	983918	2	23	8.7	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2310937**	Page	: 1 of 25
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Jun-2023 08:46
PO	: ----	Date Analysis Commenced	: 07-Jun-2023
C-O-C number	: ----	Issue Date	: 15-Jun-2023 15:45
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 976407)											
WP2310863-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1380	1350	2.13%	10%	----
Physical Tests (QC Lot: 976408)											
WP2310873-001	Anonymous	pH	----	E108	0.10	pH units	7.61	7.59	0.263%	4%	----
Physical Tests (QC Lot: 976409)											
WP2310873-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	113	113	0.443%	20%	----
Physical Tests (QC Lot: 976847)											
WP2310928-001	Anonymous	pH	----	E108	0.10	pH units	4.97	4.87	0.10	Diff <2x LOR	----
Physical Tests (QC Lot: 976848)											
WP2310937-004	SW-08	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	41.7	42.3	1.43%	20%	----
Physical Tests (QC Lot: 976849)											
WP2310937-004	SW-08	Conductivity	----	E100	1.0	µS/cm	88.8	89.5	0.785%	10%	----
Physical Tests (QC Lot: 979263)											
WP2310937-001	SW-TR	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	3.4	2.8	0.6	Diff <2x LOR	----
Physical Tests (QC Lot: 979274)											
WP2310715-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	51.7	44.0	7.7	Diff <2x LOR	----
Physical Tests (QC Lot: 983548)											
WP2310937-001	SW-TR	Acidity (as CaCO3)	----	E283	2.0	mg/L	20.0	19.3	0.6	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 976197)											
WP2309989-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	129	129	0.124%	20%	----
Anions and Nutrients (QC Lot: 976949)											
WP2310863-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.237	0.222	6.33%	20%	----
Anions and Nutrients (QC Lot: 979071)											
WP2310872-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0180	0.0170	0.0011	Diff <2x LOR	----
Cyanides (QC Lot: 983917)											
WP2310735-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 983918)											
WP2310735-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 983919)											
WP2310735-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 983920)											
WP2310937-004	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 983921)											
WP2310937-004	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 983922)											
WP2310937-004	SW-08	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 979224)											
TY2304970-017	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.78	1.52	0.25	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 980324)											
WP2311300-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	16.0	16.2	1.32%	20%	----
Organic / Inorganic Carbon (QC Lot: 984352)											
WP2310449-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.09	1.16	0.06	Diff <2x LOR	----
Total Metals (QC Lot: 978192)											
WP2310821-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0300	mg/L	23.0	22.7	1.57%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00128	0.00123	3.71%	20%	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00318	0.00315	0.901%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0328	0.0308	6.40%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.00613	0.00623	1.66%	20%	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	1.08	1.08	0.280%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.189	0.187	0.776%	20%	----
		Calcium, total	7440-70-2	E420	1.00	mg/L	498	484	2.77%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000019	0.000020	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.0291	0.0292	0.435%	20%	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.406	0.409	0.744%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.393	0.398	1.31%	20%	----
		Iron, total	7439-89-6	E420	0.100	mg/L	310	310	0.0723%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00459	0.00446	2.87%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0843	0.0836	0.888%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	89.1	89.3	0.210%	20%	----
		Manganese, total	7439-96-5	E420	0.00100	mg/L	13.3	13.4	0.902%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00420	0.00420	0.158%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	2.28	2.28	0.0479%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.288	0.296	0.008	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 978192) - continued											
WP2310821-003	Anonymous	Potassium, total	7440-09-7	E420	0.050	mg/L	55.2	55.5	0.431%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0746	0.0738	1.10%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.00184	0.00182	0.960%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	36.2	35.4	2.08%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000144	0.000131	9.47%	20%	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	99.1	101	1.94%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.744	0.741	0.402%	20%	----
		Sulfur, total	7704-34-9	E420	5.00	mg/L	887	855	3.68%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000209	0.000204	2.28%	20%	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00037	0.00023	0.00013	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00029	0.00028	0.000005	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00338	0.00356	5.27%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00083	0.00081	0.00002	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00181	0.00176	3.00%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00202	0.00210	0.00007	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0300	mg/L	11.5	11.4	0.956%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00190	0.00176	0.00014	Diff <2x LOR	----
Total Metals (QC Lot: 978216)											
WP2310593-008	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 980457)											
WP2310872-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00046	0.00045	0.000009	Diff <2x LOR	----
Dissolved Metals (QC Lot: 980458)											
WP2310872-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 980459)											
WP2310872-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0884	0.0895	1.34%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00094	0.00095	0.000008	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00907	0.00907	0.0246%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000036	0.000044	0.000008	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000134	0.0000139	0.0000005	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	6.66	6.58	1.06%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 980459) - continued											
WP2310872-001	Anonymous	Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00494	0.00499	0.939%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00140	0.00143	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	2.15	2.14	0.286%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000190	0.000188	0.000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	1.20	1.22	2.06%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.310	0.310	0.137%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000152	0.000138	0.000014	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00074	0.00074	0.000006	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.713	0.730	2.34%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00345	0.00335	2.95%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	0.000084	0.000034	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8.74	8.60	1.53%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.55	1.56	0.327%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0362	0.0359	1.07%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000028	0.000026	0.000002	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	0.00059	0.00060	0.000002	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00423	0.00434	2.37%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000242	0.000240	0.781%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00090	0.00088	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0021	0.0020	0.00004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00087	0.00083	0.00004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 980471)											
WP2311050-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0059	0.0060	0.00007	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00041	0.00040	0.000007	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 980471) - continued											
WP2311050-002	Anonymous	Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0121	0.0122	0.913%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.047	0.047	0.00006	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000054	0.0000059	0.0000005	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	31.7	32.2	1.30%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000014	0.000015	0.0000004	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.0140	0.0140	0.410%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.024	0.024	0.00006	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000114	0.000118	0.000004	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0022	0.0022	0.00003	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	6.55	6.51	0.699%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00204	0.00206	0.748%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00202	0.00204	1.09%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00082	0.00083	0.000005	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.47	2.43	1.54%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00264	0.00256	2.89%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000090	0.000084	0.000006	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.750	0.743	0.950%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	38.6	37.2	3.75%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.181	0.177	2.30%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	4.89	4.65	0.24	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000149	0.000149	0.154%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 980471) - continued											
WP2311050-002	Anonymous	Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0214	0.0209	2.11%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 980848)											
WP2310937-001	SW-TR	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000057	0.0000057	0.00000001	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 976407)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 976409)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 976848)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 976849)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 979263)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 979274)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 983548)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 976197)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 976200)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 976201)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 976202)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 976949)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 979071)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 983917)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 983918)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 983919)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 983920)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 983920) - continued						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 983921)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 983922)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 979224)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 980324)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 984352)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 978192)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 978192) - continued						
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 978193)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 978194)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 978216)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 980457)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 980458)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 980459)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 980459) - continued						
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 980471)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 980471) - continued						
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 980471) - continued						
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 980472)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 980473)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 980848)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 976407)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.8	90.0	110	----
Physical Tests (QCLot: 976408)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 976409)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 976847)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 976848)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 976849)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.7	90.0	110	----
Physical Tests (QCLot: 979263)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	106	85.0	115	----
Physical Tests (QCLot: 979274)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	88.4	85.0	115	----
Physical Tests (QCLot: 983548)									
Acidity (as CaCO3)	----	E283	2	mg/L	250 mg/L	112	85.0	115	----
Anions and Nutrients (QCLot: 976197)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 976200)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.1	90.0	110	----
Anions and Nutrients (QCLot: 976201)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.3	90.0	110	----
Anions and Nutrients (QCLot: 976202)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.3	90.0	110	----
Anions and Nutrients (QCLot: 976949)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	99.0	85.0	115	----
Anions and Nutrients (QCLot: 979071)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.7	80.0	120	----
Cyanides (QCLot: 983917)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 983917) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	89.2	80.0	120	----
Cyanides (QCLot: 983918)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	95.7	80.0	120	----
Cyanides (QCLot: 983919)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	94.2	80.0	120	----
Cyanides (QCLot: 983920)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	89.8	80.0	120	----
Cyanides (QCLot: 983921)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	92.8	80.0	120	----
Cyanides (QCLot: 983922)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	91.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 979224)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	92.1	80.0	120	----
Organic / Inorganic Carbon (QCLot: 980324)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	87.7	80.0	120	----
Organic / Inorganic Carbon (QCLot: 984352)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Total Metals (QCLot: 978192)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.4	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	95.7	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	94.7	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	94.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	108	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	90.8	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	108	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	94.2	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.6	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.3	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	92.2	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	92.4	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	92.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 978192) - continued									
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	94.3	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	95.0	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	92.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	93.9	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	92.1	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	100.0	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	94.6	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	99.5	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.6	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.1	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	96.2	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	88.7	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	93.5	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	94.1	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	95.0	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	91.5	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	89.9	80.0	120	----
Total Metals (QCLot: 978193)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	92.2	80.0	120	----
Total Metals (QCLot: 978194)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	93.9	80.0	120	----
Total Metals (QCLot: 978216)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.1	80.0	120	----
Dissolved Metals (QCLot: 980457)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 980459)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 980459) - continued									
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.6	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	94.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	107	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	99.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.7	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.5	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.3	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	93.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.4	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	98.0	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.6	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Dissolved Metals (QCLot: 980459) - continued									
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.7	80.0	120	----
Dissolved Metals (QCLot: 980471)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.8	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.7	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.8	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.4	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	99.4	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.8	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	99.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.3	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.9	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	94.3	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.5	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.1	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	92.5	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	99.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 980471) - continued									
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.6	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	94.9	80.0	120	----
Dissolved Metals (QCLot: 980472)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 976197)										
WP2309989-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	100 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 976949)										
WP2310863-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.243 mg/L	0.25 mg/L	97.2	75.0	125	----
Anions and Nutrients (QCLot: 979071)										
WP2310872-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.241 mg/L	0.25 mg/L	96.4	70.0	130	----
Cyanides (QCLot: 983917)										
WP2310735-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	2.63 mg/L	2.5 mg/L	105	75.0	125	----
Cyanides (QCLot: 983918)										
WP2310735-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0990 mg/L	0.125 mg/L	79.2	75.0	125	----
Cyanides (QCLot: 983919)										
WP2310735-001	Anonymous	Cyanide, free	----	E339-L	0.101 mg/L	0.125 mg/L	80.8	75.0	125	----
Cyanides (QCLot: 983920)										
WP2310937-004	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.207 mg/L	0.25 mg/L	82.7	75.0	125	----
Cyanides (QCLot: 983921)										
WP2310937-004	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.120 mg/L	0.125 mg/L	95.8	75.0	125	----
Cyanides (QCLot: 983922)										
WP2310937-004	SW-08	Cyanide, free	----	E339-L	0.121 mg/L	0.125 mg/L	96.7	75.0	125	----
Organic / Inorganic Carbon (QCLot: 979224)										
TY2304971-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.50 mg/L	5 mg/L	90.0	70.0	130	----
Organic / Inorganic Carbon (QCLot: 980324)										
WP2311300-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 984352)										
WP2310735-009	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.97 mg/L	5 mg/L	99.5	70.0	130	----
Total Metals (QCLot: 978192)										
WP2310821-003	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 978192) - continued										
WP2310821-003	Anonymous	Beryllium, total	7440-41-7	E420	0.0457 mg/L	0.04 mg/L	114	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00940 mg/L	0.01 mg/L	94.0	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0387 mg/L	0.04 mg/L	96.7	70.0	130	----
		Cobalt, total	7440-48-4	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0179 mg/L	0.02 mg/L	89.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, total	7440-02-0	E420	ND mg/L	0.04 mg/L	ND	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.8 mg/L	10 mg/L	108	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0520 mg/L	0.04 mg/L	130	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00376 mg/L	0.004 mg/L	94.1	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00355 mg/L	0.004 mg/L	88.8	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Tin, total	7440-31-5	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00361 mg/L	0.004 mg/L	90.2	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, total	7440-66-6	E420	ND mg/L	0.4 mg/L	ND	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0442 mg/L	0.04 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 978216)										
WP2310742-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000979 mg/L	0.0001 mg/L	97.9	70.0	130	----
Dissolved Metals (QCLot: 980457)										
WP2310872-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 980458)										
WP2310872-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.0 mg/L	10 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 980459)										
WP2310872-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.192 mg/L	0.2 mg/L	95.8	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0219 mg/L	0.02 mg/L	110	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0442 mg/L	0.04 mg/L	110	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00966 mg/L	0.01 mg/L	96.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.111 mg/L	0.1 mg/L	111	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Iron, dissolved	7439-89-6	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.15 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0188 mg/L	0.02 mg/L	94.2	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.11 mg/L	2 mg/L	106	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 980459) - continued										
WP2310872-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	20.5 mg/L	20 mg/L	103	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.396 mg/L	0.4 mg/L	98.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 980471)										
WP2311050-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.192 mg/L	0.2 mg/L	95.9	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0193 mg/L	0.02 mg/L	96.4	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00940 mg/L	0.01 mg/L	94.0	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00387 mg/L	0.004 mg/L	96.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0381 mg/L	0.04 mg/L	95.3	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0183 mg/L	0.02 mg/L	91.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.90 mg/L	2 mg/L	95.1	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0881 mg/L	0.1 mg/L	88.1	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0375 mg/L	0.04 mg/L	93.8	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.00 mg/L	4 mg/L	100	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 980471) - continued										
WP2311050-002	Anonymous	Selenium, dissolved	7782-49-2	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.80 mg/L	10 mg/L	98.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00398 mg/L	0.004 mg/L	99.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.8 mg/L	20 mg/L	99.3	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00388 mg/L	0.004 mg/L	96.9	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00392 mg/L	0.004 mg/L	98.1	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0979 mg/L	0.1 mg/L	97.9	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.375 mg/L	0.4 mg/L	93.7	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0446 mg/L	0.04 mg/L	112	70.0	130	----
Dissolved Metals (QCLot: 980848)										
WP2310937-002	SW-08A	Mercury, dissolved	7439-97-6	E509	0.0000996 mg/L	0.0001 mg/L	99.6	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	**ALS Contact:** Judy Dalmaijer **Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-TR	5-Jun-23	9:10	Water	9	X			5.31	22.35	0.034
	SW-08A	5-Jun-23	10:30	Water	9	X			7.31	20.19	0.151
	SW-03	5-Jun-23	11:30	Water	9	X			7.74	21.19	0.215
	SW-08	5-Jun-23	12:30	Water	9	X			7.59	22.91	0.086
	SW-FIELD01	5-Jun-23	9:30	Water	9	X					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
[signature]	June 6 2023	8:10	SP	JUN 07 2023	8:46		

18.6

Environmental Division
Winnipeg
Work Order Reference
WP2310937

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2311799**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Date Analysis Commenced	: 14-Jun-2023
C-O-C number	: ----	Issue Date	: 21-Jun-2023 15:05
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Metals, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

MERCURY VIAL BROKE FRACTION 001_AE

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
						WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		8.14	6.44	7.58	7.04	8.14
Temperature, field	----	EF001/WP	0.10	°C		19.9	9.20	18.0	17.8	19.9
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	3.0	3.9	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.7	34.6	49.1	60.6	34.2
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.7	34.6	49.1	60.6	34.2
Conductivity	----	E100/WP	1.0	µS/cm		63.6	84.5	98.1	114	65.3
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		31.6	31.7	52.5	63.4	31.5
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		34.6	37.7	63.2	74.5	36.3
pH	----	E108/WP	0.10	pH units		7.68	7.67	7.65	7.69	7.68
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		44.2	42.8	92.8	63.0	34.2
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.4	2.0	42.0	11.8	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.020	0.049	0.046	0.023	<0.010
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<5.00 DLM	<5.00 DLM	<5.00 DLM	<5.00 DLM	<5.00 DLM
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.250 DLM	<0.250 DLM	<0.250 DLM	<0.250 DLM	<0.250 DLM
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.255	<0.255	<0.255	<0.255	<0.255
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0746	<0.0500 DLM	<0.0500 DLM	<0.0500 DLM	<0.0500 DLM
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0096	0.0212	0.0559	0.0323	0.0096
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<15.0 DLM	<15.0 DLM	<15.0 DLM	<15.0 DLM	<15.0 DLM
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0013	<0.0010	0.0014	0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
						WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0016	0.0017	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.8	12.2	27.2	25.3	9.88
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0096	0.0808	1.36	0.445	0.0097
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00011	0.00014	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00181	0.00318	0.00342	0.00361	0.00188
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00746	0.0118	0.0280	0.0172	0.00784
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	0.000056	0.000029	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000174	0.0000082	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.95	10.8	16.8	19.5	10.5
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000016	0.000164	0.000044	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	0.00018	0.00356	0.00117	0.00012
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00356	0.00117	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	0.00012	0.00079	0.00037	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00300	0.00119	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.086	0.853	2.04	1.01	0.092
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	0.000155	0.000682	0.000234	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	0.0012	0.0032	0.0030	0.0011
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.36	2.60	5.15	6.27	2.44
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00720	0.243	0.0938	0.0611	0.00766
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000057	0.0000058	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000189	0.000112	0.000336	0.000676	0.000109
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00309	0.00156	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.048	0.070	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	0.070	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.753	0.834	1.50	1.28	0.782
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00177	0.00199	0.00431	0.00183	0.00180

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
						WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000077	0.000102	0.000165	0.000166	0.000076
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.23	2.33	5.48	3.91	1.34
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000039	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.32	1.43	2.50	2.54	1.35
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0212	0.0241	0.0386	0.0382	0.0225
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.60	0.57	0.92	0.69	0.59
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000024	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00028	0.00012	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	0.00348	0.0594	0.0183	0.00044
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00030	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000044	0.000072	0.000388	0.000194	0.000044
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	0.00050	0.00401	0.00161	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0057	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	0.00103	0.00057	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0020	0.0028	0.0783	0.0931	0.0039
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00138	0.00162	0.00234	0.00283	0.00156
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00544	0.00716	0.0113	0.0119	0.00647
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.100 DLM	<0.100 DLM	<0.100 DLM	0.011	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000067	0.0000056	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.36	9.51	15.2	16.4	8.93
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00011	0.00052	0.00042	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00052	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00016	0.00017	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
						WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00081 RRV	0.00030	0.00132	0.00311 RRV	<0.00020
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.033	0.505	0.401	0.394	0.038
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	0.000112	0.000117	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0017	0.0027	0.0028	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.01	1.93	3.53	5.44	2.24
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00094	0.134	0.0579	0.0442	0.00127
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000118	0.000091	0.000298	0.000647	0.000144
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00090	0.00110	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.728	0.718	1.11	1.08	0.708
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00163	0.00159	0.00149	0.00111	0.00176
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		<0.000050	0.000060	0.000121	0.000132	0.000116
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.04	1.60	2.66	3.08	1.16
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.39	1.34	2.96	2.13	1.17
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0218	0.0210	0.0323	0.0351	0.0227
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	0.00029
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00366	0.00238	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00021	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000032	0.000025	0.000193	0.000148	0.000042
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00115	0.00062	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0030	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00054	0.00048	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK	----	----	----	----
					Client sampling date / time	10-Jun-2023 13:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311799-006	--------	--------	--------	--------
						Result	----	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		<1.0	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		<0.50	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		<0.50	----	----	----	----
pH	----	E108/WP	0.10	pH units		5.53	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		<3.0	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<0.10	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		<0.0020	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	----	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		<0.50	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK	----	----	----	----
					Client sampling date / time	10-Jun-2023 13:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311799-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		<0.0050	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		<0.10	----	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK	----	----	----	----
					Client sampling date / time	10-Jun-2023 13:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311799-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		<0.0050	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)									
				Client sample ID	BLANK	----	----	----	----
				Client sampling date / time	10-Jun-2023 13:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2311799-006	--------	--------	--------	--------
					Result	----	----	----	----
Dissolved Metals									
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L	<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L	<0.000050	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L	<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L	<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L	<0.000050	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L	<0.50	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L	<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L	<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L	<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L	<0.00030	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-	Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-	Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2311799**	Page	: 1 of 27
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Issue Date	: 21-Jun-2023 15:02
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG4-9926140 01	----	Lithium, total	7439-93-2	E420	0.0012 B mg/L	0.001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) BLANK	E303	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-02	E303	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-09	E303	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-10	E303	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-GL	E303	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-GL-B	E303	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.Cl-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.Cl-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.Cl-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.Cl-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.Cl-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	28 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.NO3-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO3-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.NO3-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO3-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO3-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO3-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.NO2-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO2-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.NO2-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO2-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	7 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BLANK	E235.SO4	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP-02	E235.SO4	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-10	E235.SO4	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL	E235.SO4	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL-B	E235.SO4	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-09	E235.SO4	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK	E372-U	10-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-02	E372-U	10-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	10-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-10	E372-U	10-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	10-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL-B	E372-U	10-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK	E339-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-02	E339-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-09	E339-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-10	E339-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E339-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E339-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK	E333-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E333-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E333-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK	E336-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E336-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E336-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E336-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E336-L	10-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) BLANK	E421.Cr-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) DUP-02	E421.Cr-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-09	E421.Cr-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-10	E421.Cr-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.Cr-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) BLANK	E509	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-02	E509	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-10	E509	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK	E421	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-02	E421	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-10	E421	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK	E421.P-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-02	E421.P-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-09	E421.P-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-10	E421.P-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	5 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DUP-02	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	----	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-09	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-10	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL-B	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK	E358-L	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-02	E358-L	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-09	E358-L	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-10	E358-L	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL-B	E358-L	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK	E283	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-02	E283	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-09	E283	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-10	E283	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-GL	E283	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-GL-B	E283	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BLANK	E290	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DUP-02	E290	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-09	E290	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-10	E290	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK	E100	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-02	E100	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-10	E100	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK	E108	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-02	E108	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-10	E108	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	10-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-02	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-10	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-02	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-10	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK	E420.Cr-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-10	E420.Cr-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK	E508	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-10	E508	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	10-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK	E420	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-10	E420	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK	E420.P-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-10	E420.P-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	10-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	992711	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	988566	1	10	10.0	5.0	✓
Ammonia in Water by Colour	E303	988724	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	992183	0	7	0.0	5.0	×
Conductivity in Water	E100	988568	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990223	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990222	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990224	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	992181	0	6	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	992182	0	6	0.0	5.0	×
pH by Meter	E108	988567	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	992180	1	30	3.3	5.0	×
TDS by Gravimetry (Low Level)	E162-L	988811	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992616	0	6	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	992615	0	16	0.0	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992617	0	6	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	992711	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	988566	1	10	10.0	5.0	✓
Ammonia in Water by Colour	E303	988724	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	992183	2	7	28.5	5.0	✓
Conductivity in Water	E100	988568	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990223	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990222	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990224	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	992181	2	6	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	992182	2	6	33.3	5.0	✓
pH by Meter	E108	988567	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	992180	2	30	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	988811	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992616	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	992615	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992617	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	992711	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	988566	1	10	10.0	5.0	✓
Ammonia in Water by Colour	E303	988724	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	992183	2	7	28.5	5.0	✓
Conductivity in Water	E100	988568	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990223	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990222	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990224	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	992181	2	6	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	992182	2	6	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	992180	2	30	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	988811	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992616	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	992615	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992617	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	988724	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	992183	0	7	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990223	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990222	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990224	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	992181	0	6	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	992182	0	6	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	992180	1	30	3.3	5.0	✗
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992616	0	6	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	992615	0	16	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992617	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2311799**	Page	: 1 of 22
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Date Analysis Commenced	: 14-Jun-2023
C-O-C number	: ----	Issue Date	: 21-Jun-2023 15:04
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Winnipeg Metals, Winnipeg, Manitoba
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 988566)											
WP2311799-001	SW-GL	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.7	34.0	0.886%	20%	----
Physical Tests (QC Lot: 988567)											
WP2311799-001	SW-GL	pH	----	E108	0.10	pH units	7.68	7.68	0.00%	4%	----
Physical Tests (QC Lot: 988568)											
WP2311630-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	281	280	0.356%	10%	----
Physical Tests (QC Lot: 988808)											
WP2311825-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.6	6.2	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 988811)											
WP2311752-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	864	858	0.639%	20%	----
Physical Tests (QC Lot: 992711)											
WP2311799-001	SW-GL	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 992752)											
HA2300279-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.3	3.8	0.5	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 988724)											
WP2311749-010	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 989853)											
WP2311651-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	3.82	3.79	0.935%	20%	----
Anions and Nutrients (QC Lot: 992180)											
WP2311946-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	151	152	0.651%	20%	----
Cyanides (QC Lot: 999040)											
WP2311225-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0011	0.0011	0.00004	Diff <2x LOR	----
Cyanides (QC Lot: 999041)											
WP2311225-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 999042)											
WP2311225-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0023	0.0018	0.0005	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 988156)											
TY2305274-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	13.0	13.4	2.77%	20%	----
Total Metals (QC Lot: 990403)											
WP2311463-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000170	0.0000176	0.0000005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 990222)											
WP2311380-006	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0096	0.0100	0.0004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00116	0.00119	2.90%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0558	0.0558	0.0841%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	0.000021	0.0000008	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.048	0.050	0.002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000061	0.0000011	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	56.6	55.7	1.62%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00130	0.00132	1.79%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00278	0.00273	1.67%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.949	0.927	2.41%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000133	0.000133	0.0000003	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0087	0.0086	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	27.6	27.7	0.655%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.219	0.217	0.853%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000429	0.000416	0.000013	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00387	0.00381	0.00005	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.76	1.74	1.30%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00118	0.00125	0.00006	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.67	4.63	0.794%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.79	2.83	1.61%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0920	0.0929	0.957%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	3.56	3.41	0.16	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000010	<0.000010	0.0000004	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00014	0.00015	0.00001	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00030	0.00037	0.00006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 990222) - continued											
WP2311380-006	Anonymous	Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00151	0.00150	0.808%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00106	0.00104	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0024	0.0024	0.0001	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00052	0.00054	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990231)											
WP2311799-004	SW-10	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0931	0.0951	2.16%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00283	0.00281	0.823%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0119	0.0119	0.204%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.011	0.010	0.0004	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000056	<0.0000050	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	16.4	15.9	2.87%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00017	0.00016	0.00001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00311	0.00311	0.0788%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.394	0.395	0.209%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000117	0.000112	0.000005	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0028	0.0026	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	5.44	5.52	1.63%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0442	0.0444	0.343%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000647	0.000665	2.73%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00110	0.00112	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.08	1.11	2.88%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00111	0.00116	0.00005	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000132	0.000099	0.000033	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.08	3.06	0.799%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.13	2.16	1.42%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0351	0.0357	1.68%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 990231) - continued											
WP2311799-004	SW-10	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00238	0.00221	0.00017	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000148	0.000148	0.364%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00062	0.00064	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0030	0.0032	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00048	0.00051	0.00003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990232)											
WP2311799-004	SW-10	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00042	0.00043	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990233)											
WP2311799-004	SW-10	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990462)											
WP2311731-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 988566)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 988568)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 988808)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 988811)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 992711)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 992752)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 988724)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 989853)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 992180)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 992181)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 992182)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 992183)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 992947)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 992948)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 992949)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 992950)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 999040)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 999040) - continued						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 999041)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 999042)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 988156)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 990403)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 992615)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	# 0.0012	B
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 992615) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 992616)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 992617)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 990222)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 990222) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 990223)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 990224)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 990231)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 990231) - continued						
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 990232)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 990233)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 990233) - continued						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 990462)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 988566)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 988567)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 988568)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	96.4	90.0	110	----
Physical Tests (QCLot: 988808)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 988811)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.2	85.0	115	----
Physical Tests (QCLot: 992711)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.7	85.0	115	----
Physical Tests (QCLot: 992752)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	97.3	85.0	115	----
Anions and Nutrients (QCLot: 988724)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	99.4	85.0	115	----
Anions and Nutrients (QCLot: 989853)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.1	80.0	120	----
Anions and Nutrients (QCLot: 992180)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 992181)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 992182)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 992183)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 992947)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 992948)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 992949)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 992950)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.6	90.0	110	----
Cyanides (QCLot: 999040)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	104	80.0	120	----
Cyanides (QCLot: 999041)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	92.0	80.0	120	----
Cyanides (QCLot: 999042)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	95.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 988156)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	116	80.0	120	----
Total Metals (QCLot: 990403)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Total Metals (QCLot: 992615)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	97.6	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	98.3	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	91.4	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.1	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	95.8	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.3	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	98.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 992615) - continued									
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.1	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	98.7	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	92.4	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.4	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	82.8	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	97.6	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	109	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Total Metals (QCLot: 992616)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Total Metals (QCLot: 992617)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	98.7	80.0	120	----
Dissolved Metals (QCLot: 990222)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 990222) - continued									
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.5	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.9	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.7	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.2	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.0	80.0	120	----
Dissolved Metals (QCLot: 990223)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Dissolved Metals (QCLot: 990231)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	110	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 990231) - continued									
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.7	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	107	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.2	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	114	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.6	80.0	120	----
Dissolved Metals (QCLot: 990232)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 990233) - continued									
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	107	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 988724)										
WP2311749-010	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.230 mg/L	0.25 mg/L	92.0	75.0	125	----
Anions and Nutrients (QCLot: 989853)										
WP2311799-001	SW-GL	Phosphorus, total	7723-14-0	E372-U	0.245 mg/L	0.25 mg/L	97.9	70.0	130	----
Anions and Nutrients (QCLot: 992180)										
WP2311946-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	100 mg/L	ND	75.0	125	----
Cyanides (QCLot: 999040)										
WP2311225-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.147 mg/L	0.125 mg/L	118	75.0	125	----
Cyanides (QCLot: 999041)										
WP2311225-001	Anonymous	Cyanide, free	----	E339-L	0.132 mg/L	0.125 mg/L	105	75.0	125	----
Cyanides (QCLot: 999042)										
WP2311225-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.256 mg/L	0.25 mg/L	102	75.0	125	----
Organic / Inorganic Carbon (QCLot: 988156)										
WP2311799-001	SW-GL	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 990403)										
WP2311799-001	SW-GL	Mercury, total	7439-97-6	E508	0.000102 mg/L	0.0001 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 990222)										
WP2311380-006	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.202 mg/L	0.2 mg/L	101	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00985 mg/L	0.01 mg/L	98.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 990222) - continued										
WP2311380-006	Anonymous	Iron, dissolved	7439-89-6	E421	1.93 mg/L	2 mg/L	96.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0383 mg/L	0.04 mg/L	95.9	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.98 mg/L	4 mg/L	99.5	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0383 mg/L	0.04 mg/L	95.8	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.76 mg/L	10 mg/L	97.6	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.3 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0430 mg/L	0.04 mg/L	108	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.380 mg/L	0.4 mg/L	94.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 990231)										
WP2311799-004	SW-10	Aluminum, dissolved	7429-90-5	E421	0.220 mg/L	0.2 mg/L	110	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0237 mg/L	0.02 mg/L	118	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0117 mg/L	0.01 mg/L	117	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00431 mg/L	0.004 mg/L	108	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 990231) - continued										
WP2311799-004	SW-10	Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.96 mg/L	2 mg/L	97.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0234 mg/L	0.02 mg/L	117	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0240 mg/L	0.02 mg/L	120	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.34 mg/L	4 mg/L	108	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.5 mg/L	10 mg/L	105	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00443 mg/L	0.004 mg/L	111	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.1 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00463 mg/L	0.004 mg/L	116	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0460 mg/L	0.04 mg/L	115	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0233 mg/L	0.02 mg/L	117	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00479 mg/L	0.004 mg/L	120	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.428 mg/L	0.4 mg/L	107	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0491 mg/L	0.04 mg/L	123	70.0	130	----
Dissolved Metals (QCLot: 990232)										
WP2311799-004	SW-10	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
Dissolved Metals (QCLot: 990233)										
WP2311799-004	SW-10	Phosphorus, dissolved	7723-14-0	E421.P-L	11.1 mg/L	10 mg/L	111	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 990462)										
WP2311731-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only): | **ALS Contact:** Judy Dalmaijer | **Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
	SW-GL	10-Jun-23	13:00	Water	9	X			8.14	19.92	0.063
	SW-GL-B	10-Jun-23	13:15	Water	9	X			6.44	9.2	0.064
	SW-09	10-Jun-23	10:45	Water	9	X			7.58	18.02	0.093
	SW-10	10-Jun-23	10:15	Water	9	X			7.04	17.82	0.108
	DUP-02	10-Jun-23	13:10	Water	9	X			8.14	19.92	0.063
	BLANK	10-Jun-23	13:20	Water	9	X			/	/	/

Environmental Division
Winnipeg
Work Order Reference
WP2311799

Telephone : +1 204 255 9720

SH	INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: C	Received by: SN	Date: JUN 13 2023	Time: 1:07	Received by:	Time:

18.6

11799

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2311799**	Page	: 1 of 12
Amendment	: **1**		
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Date Analysis Commenced	: 14-Jun-2023
C-O-C number	: ----	Issue Date	: 22-Mar-2024 14:17
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Metals, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.
Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

MERCURY VIAL BROKE FRACTION 001_AE

Qualifiers

Qualifier	*Description*
CNI	*Test result for Total Cyanide may be biased high due to interference from high nitrite in this sample. Nitrite can cause false positives for T-CN at up to ~ 0.8% of the nitrite concentration. Interpret result as a maximum possible value.*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
						WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		8.14	6.44	7.58	7.04	8.14
Temperature, field	----	EF001/WP	0.10	°C		19.9	9.20	18.0	17.8	19.9
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	3.0	3.9	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.7	34.6	49.1	60.6	34.2
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.7	34.6	49.1	60.6	34.2
Conductivity	----	E100/WP	1.0	µS/cm		63.6	84.5	98.1	114	65.3
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		31.6	31.7	52.5	63.4	31.5
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		34.6	37.7	63.2	74.5	36.3
pH	----	E108/WP	0.10	pH units		7.68	7.67	7.65	7.69	7.68
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		44.2	42.8	92.8	63.0	34.2
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.4	2.0	42.0	11.8	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.020	0.049	0.046	0.023	<0.010
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<5.00 DLM	<5.00 DLM	<5.00 DLM	<5.00 DLM	<5.00 DLM
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.250 DLM	<0.250 DLM	<0.250 DLM	<0.250 DLM	<0.250 DLM
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.255	<0.255	<0.255	<0.255	<0.255
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0746	<0.0500 DLM	<0.0500 DLM	<0.0500 DLM	<0.0500 DLM
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0096	0.0212	0.0559	0.0323	0.0096
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<15.0 DLM	<15.0 DLM	<15.0 DLM	<15.0 DLM	<15.0 DLM
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0013 CNI	<0.0010	0.0014	0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
						WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0016	0.0017	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.8	12.2	27.2	25.3	9.88
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0096	0.0808	1.36	0.445	0.0097
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00011	0.00014	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00181	0.00318	0.00342	0.00361	0.00188
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00746	0.0118	0.0280	0.0172	0.00784
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	0.000056	0.000029	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000174	0.0000082	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.95	10.8	16.8	19.5	10.5
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000016	0.000164	0.000044	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	0.00018	0.00356	0.00117	0.00012
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00356	0.00117	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	0.00012	0.00079	0.00037	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00300	0.00119	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.086	0.853	2.04	1.01	0.092
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	0.000155	0.000682	0.000234	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	0.0012	0.0032	0.0030	0.0011
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.36	2.60	5.15	6.27	2.44
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00720	0.243	0.0938	0.0611	0.00766
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000057	0.0000058	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000189	0.000112	0.000336	0.000676	0.000109
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00309	0.00156	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.048	0.070	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	0.070	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.753	0.834	1.50	1.28	0.782
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00177	0.00199	0.00431	0.00183	0.00180

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
						WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000077	0.000102	0.000165	0.000166	0.000076
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.23	2.33	5.48	3.91	1.34
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000039	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.32	1.43	2.50	2.54	1.35
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0212	0.0241	0.0386	0.0382	0.0225
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.60	0.57	0.92	0.69	0.59
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000024	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00028	0.00012	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	0.00348	0.0594	0.0183	0.00044
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00030	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000044	0.000072	0.000388	0.000194	0.000044
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	0.00050	0.00401	0.00161	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0057	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	0.00103	0.00057	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0020	0.0028	0.0783	0.0931	0.0039
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00138	0.00162	0.00234	0.00283	0.00156
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00544	0.00716	0.0113	0.0119	0.00647
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.100 DLM	<0.100 DLM	<0.100 DLM	0.011	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000067	0.0000056	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.36	9.51	15.2	16.4	8.93
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00011	0.00052	0.00042	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00052	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00016	0.00017	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
						WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00081 RRV	0.00030	0.00132	0.00311 RRV	<0.00020
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.033	0.505	0.401	0.394	0.038
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	0.000112	0.000117	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0017	0.0027	0.0028	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.01	1.93	3.53	5.44	2.24
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00094	0.134	0.0579	0.0442	0.00127
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000118	0.000091	0.000298	0.000647	0.000144
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00090	0.00110	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.728	0.718	1.11	1.08	0.708
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00163	0.00159	0.00149	0.00111	0.00176
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		<0.000050	0.000060	0.000121	0.000132	0.000116
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.04	1.60	2.66	3.08	1.16
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.39	1.34	2.96	2.13	1.17
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0218	0.0210	0.0323	0.0351	0.0227
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	0.00029
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00366	0.00238	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00021	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000032	0.000025	0.000193	0.000148	0.000042
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00115	0.00062	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0030	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00054	0.00048	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	SW-09	SW-10	DUP-02
					Client sampling date / time	10-Jun-2023 13:00	10-Jun-2023 13:15	10-Jun-2023 10:45	10-Jun-2023 10:15	10-Jun-2023 13:10
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311799-001	WP2311799-002	WP2311799-003	WP2311799-004	WP2311799-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK	----	----	----	----
					Client sampling date / time	10-Jun-2023 13:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311799-006	--------	--------	--------	--------
						Result	----	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		<1.0	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		<0.50	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		<0.50	----	----	----	----
pH	----	E108/WP	0.10	pH units		5.53	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		<3.0	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<0.10	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		<0.0020	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	----	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		<0.50	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)									
				Client sample ID	BLANK	----	----	----	----
				Client sampling date / time	10-Jun-2023 13:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2311799-006	--------	--------	--------	--------
					Result	----	----	----	----
Total Metals									
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L	<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L	<0.00010	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L	<0.00010	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L	<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L	<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L	<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L	<0.0000050	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L	<0.050	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L	<0.000010	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L	<0.00010	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L	<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L	<0.00010	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L	<0.00050	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L	<0.010	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L	<0.000050	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L	<0.0010	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L	<0.0050	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L	<0.00010	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L	<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L	<0.000050	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L	<0.00050	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L	<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L	<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L	<0.050	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L	<0.00020	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L	<0.000050	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L	<0.10	----	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L	<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L	<0.050	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L	<0.00020	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK	----	----	----	----
					Client sampling date / time	10-Jun-2023 13:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311799-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		<0.0050	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)									
				Client sample ID	BLANK	----	----	----	----
				Client sampling date / time	10-Jun-2023 13:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2311799-006	--------	--------	--------	--------
					Result	----	----	----	----
Dissolved Metals									
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L	<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L	<0.000050	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L	<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L	<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L	<0.000050	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L	<0.50	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L	<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L	<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L	<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L	<0.00030	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-	Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-	Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2311799**	Page	: 1 of 27
Amendment	: 1		
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Issue Date	: 22-Mar-2024 14:16
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG4-9926140 01	----	Lithium, total	7439-93-2	E420	0.0012 B mg/L	0.001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) BLANK	E303	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-02	E303	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-09	E303	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-10	E303	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-GL	E303	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-GL-B	E303	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.Cl-L	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.Cl-L	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.Cl-L	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.Cl-L	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.Cl-L	10-Jun-2023	16-Jun-2023	28 days	6 days	✓	16-Jun-2023	28 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.NO3-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO3-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.NO3-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO3-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO3-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO3-L	10-Jun-2023	16-Jun-2023	7 days	6 days	✓	16-Jun-2023	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BLANK	E235.NO2-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO2-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.NO2-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	10-Jun-2023	15-Jun-2023	7 days	5 days	✓	15-Jun-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO2-L	10-Jun-2023	16-Jun-2023	7 days	6 days	✓	16-Jun-2023	7 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BLANK	E235.SO4	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP-02	E235.SO4	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-10	E235.SO4	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL	E235.SO4	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL-B	E235.SO4	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-09	E235.SO4	10-Jun-2023	16-Jun-2023	28 days	6 days	✓	16-Jun-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK	E372-U	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-02	E372-U	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-10	E372-U	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL	E372-U	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	15-Jun-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL-B	E372-U	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	15-Jun-2023	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK	E339-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E339-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E339-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK	E333-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E333-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E333-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK	E336-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E336-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E336-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	10-Jun-2023	21-Jun-2023	14 days	11 days	✓	21-Jun-2023	14 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK	E421.Cr-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.Cr-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-10	E421.Cr-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.Cr-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK	E509	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-02	E509	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-10	E509	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK	E421	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-02	E421	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-10	E421	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK	E421.P-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-02	E421.P-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-09	E421.P-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-10	E421.P-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	10-Jun-2023	15-Jun-2023	180 days	5 days	✓	15-Jun-2023	180 days	5 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DUP-02	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	4 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-09	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-10	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL-B	EF001	10-Jun-2023	----	----	----		14-Jun-2023	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK	E358-L	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-02	E358-L	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-09	E358-L	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-10	E358-L	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL-B	E358-L	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE BLANK	E283	10-Jun-2023	16-Jun-2023	14 days	6 days	✓	16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP-02	E283	10-Jun-2023	16-Jun-2023	14 days	6 days	✓	16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-09	E283	10-Jun-2023	16-Jun-2023	14 days	6 days	✓	16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-10	E283	10-Jun-2023	16-Jun-2023	14 days	6 days	✓	16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	10-Jun-2023	16-Jun-2023	14 days	6 days	✓	16-Jun-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	10-Jun-2023	16-Jun-2023	14 days	6 days	✓	16-Jun-2023	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK	E290	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-02	E290	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-09	E290	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-10	E290	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK	E100	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-02	E100	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-10	E100	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	10-Jun-2023	14-Jun-2023	28 days	4 days	✓	14-Jun-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK	E108	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-02	E108	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-10	E108	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	10-Jun-2023	14-Jun-2023	14 days	4 days	✓	14-Jun-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-02	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-10	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-02	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-10	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	10-Jun-2023	----	----	----		15-Jun-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK	E420.Cr-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-10	E420.Cr-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK	E508	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-10	E508	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	10-Jun-2023	15-Jun-2023	28 days	5 days	✓	15-Jun-2023	28 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK	E420	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-10	E420	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK	E420.P-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-10	E420.P-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	10-Jun-2023	16-Jun-2023	180 days	6 days	✓	16-Jun-2023	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	992711	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	988566	1	10	10.0	5.0	✓
Ammonia in Water by Colour	E303	988724	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	992183	0	7	0.0	5.0	×
Conductivity in Water	E100	988568	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990223	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990222	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990224	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	992181	0	6	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	992182	0	6	0.0	5.0	×
pH by Meter	E108	988567	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	992180	1	30	3.3	5.0	×
TDS by Gravimetry (Low Level)	E162-L	988811	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992616	0	6	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	992615	0	16	0.0	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992617	0	6	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	992711	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	988566	1	10	10.0	5.0	✓
Ammonia in Water by Colour	E303	988724	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	992183	2	7	28.5	5.0	✓
Conductivity in Water	E100	988568	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990223	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990222	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990224	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	992181	2	6	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	992182	2	6	33.3	5.0	✓
pH by Meter	E108	988567	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	992180	2	30	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	988811	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992616	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	992615	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992617	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	992711	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	988566	1	10	10.0	5.0	✓
Ammonia in Water by Colour	E303	988724	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	992183	2	7	28.5	5.0	✓
Conductivity in Water	E100	988568	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990223	2	9	22.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990222	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990224	2	9	22.2	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	992181	2	6	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	992182	2	6	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	992180	2	30	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	988811	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992616	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	992615	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992617	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	988724	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	992183	0	7	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990223	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990222	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990224	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	992181	0	6	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	992182	0	6	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	992180	1	30	3.3	5.0	✗
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992616	0	6	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	992615	0	16	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992617	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2311799**	Page	: 1 of 22
Amendment	: **1**		
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Date Analysis Commenced	: 14-Jun-2023
C-O-C number	: ----	Issue Date	: 22-Mar-2024 14:16
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Winnipeg Metals, Winnipeg, Manitoba
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 988566)											
WP2311799-001	SW-GL	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.7	34.0	0.886%	20%	----
Physical Tests (QC Lot: 988567)											
WP2311799-001	SW-GL	pH	----	E108	0.10	pH units	7.68	7.68	0.00%	4%	----
Physical Tests (QC Lot: 988568)											
WP2311630-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	281	280	0.356%	10%	----
Physical Tests (QC Lot: 988808)											
WP2311825-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.6	6.2	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 988811)											
WP2311752-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	864	858	0.639%	20%	----
Physical Tests (QC Lot: 992711)											
WP2311799-001	SW-GL	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 992752)											
HA2300279-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.3	3.8	0.5	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 988724)											
WP2311749-010	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 989853)											
WP2311651-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	3.82	3.79	0.935%	20%	----
Anions and Nutrients (QC Lot: 992180)											
WP2311946-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	151	152	0.651%	20%	----
Cyanides (QC Lot: 999040)											
WP2311225-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0011	0.0011	0.00004	Diff <2x LOR	----
Cyanides (QC Lot: 999041)											
WP2311225-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 999042)											
WP2311225-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0023	0.0018	0.0005	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 988156)											
TY2305274-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	13.0	13.4	2.77%	20%	----
Total Metals (QC Lot: 990403)											
WP2311463-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000170	0.0000176	0.0000005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 990222)											
WP2311380-006	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0096	0.0100	0.0004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00116	0.00119	2.90%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0558	0.0558	0.0841%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	0.000021	0.0000008	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.048	0.050	0.002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000061	0.0000011	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	56.6	55.7	1.62%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00130	0.00132	1.79%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00278	0.00273	1.67%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.949	0.927	2.41%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000133	0.000133	0.0000003	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0087	0.0086	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	27.6	27.7	0.655%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.219	0.217	0.853%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000429	0.000416	0.000013	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00387	0.00381	0.00005	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.76	1.74	1.30%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00118	0.00125	0.00006	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.67	4.63	0.794%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.79	2.83	1.61%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0920	0.0929	0.957%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	3.56	3.41	0.16	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000010	<0.000010	0.0000004	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00014	0.00015	0.00001	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00030	0.00037	0.00006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 990222) - continued											
WP2311380-006	Anonymous	Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00151	0.00150	0.808%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00106	0.00104	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0024	0.0024	0.0001	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00052	0.00054	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990231)											
WP2311799-004	SW-10	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0931	0.0951	2.16%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00283	0.00281	0.823%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0119	0.0119	0.204%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.011	0.010	0.0004	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000056	<0.0000050	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	16.4	15.9	2.87%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00017	0.00016	0.00001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00311	0.00311	0.0788%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.394	0.395	0.209%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000117	0.000112	0.000005	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0028	0.0026	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	5.44	5.52	1.63%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0442	0.0444	0.343%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000647	0.000665	2.73%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00110	0.00112	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.08	1.11	2.88%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00111	0.00116	0.00005	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000132	0.000099	0.000033	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.08	3.06	0.799%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.13	2.16	1.42%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0351	0.0357	1.68%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 990231) - continued											
WP2311799-004	SW-10	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00238	0.00221	0.00017	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000148	0.000148	0.364%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00062	0.00064	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0030	0.0032	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00048	0.00051	0.00003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990232)											
WP2311799-004	SW-10	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00042	0.00043	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990233)											
WP2311799-004	SW-10	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990462)											
WP2311731-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 988566)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 988568)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 988808)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 988811)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 992711)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 992752)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 988724)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 989853)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 992180)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 992181)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 992182)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 992183)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 992947)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 992948)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 992949)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 992950)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 999040)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 999040) - continued						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 999041)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 999042)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 988156)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 990403)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 992615)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	# 0.0012	B
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 992615) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 992616)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 992617)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 990222)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 990222) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 990223)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 990224)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 990231)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 990231) - continued						
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 990232)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 990233)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 990233) - continued						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 990462)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 988566)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 988567)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 988568)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	96.4	90.0	110	----
Physical Tests (QCLot: 988808)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 988811)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.2	85.0	115	----
Physical Tests (QCLot: 992711)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.7	85.0	115	----
Physical Tests (QCLot: 992752)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	97.3	85.0	115	----
Anions and Nutrients (QCLot: 988724)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	99.4	85.0	115	----
Anions and Nutrients (QCLot: 989853)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.1	80.0	120	----
Anions and Nutrients (QCLot: 992180)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 992181)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 992182)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 992183)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 992947)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 992948)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 992949)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 992950)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.6	90.0	110	----
Cyanides (QCLot: 999040)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	104	80.0	120	----
Cyanides (QCLot: 999041)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	92.0	80.0	120	----
Cyanides (QCLot: 999042)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	95.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 988156)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	116	80.0	120	----
Total Metals (QCLot: 990403)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Total Metals (QCLot: 992615)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	97.6	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	98.3	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	91.4	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.1	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	95.8	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.3	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	98.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 992615) - continued									
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.1	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	98.7	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	92.4	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.4	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	82.8	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	97.6	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	109	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Total Metals (QCLot: 992616)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Total Metals (QCLot: 992617)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	98.7	80.0	120	----
Dissolved Metals (QCLot: 990222)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 990222) - continued									
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.5	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.9	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.7	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.2	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.0	80.0	120	----
Dissolved Metals (QCLot: 990223)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Dissolved Metals (QCLot: 990231)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	110	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 990231) - continued									
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.7	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	107	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.2	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	114	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.6	80.0	120	----
Dissolved Metals (QCLot: 990232)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 990233) - continued									
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	107	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 988724)										
WP2311749-010	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.230 mg/L	0.25 mg/L	92.0	75.0	125	----
Anions and Nutrients (QCLot: 989853)										
WP2311799-001	SW-GL	Phosphorus, total	7723-14-0	E372-U	0.245 mg/L	0.25 mg/L	97.9	70.0	130	----
Anions and Nutrients (QCLot: 992180)										
WP2311946-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	100 mg/L	ND	75.0	125	----
Cyanides (QCLot: 999040)										
WP2311225-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.147 mg/L	0.125 mg/L	118	75.0	125	----
Cyanides (QCLot: 999041)										
WP2311225-001	Anonymous	Cyanide, free	----	E339-L	0.132 mg/L	0.125 mg/L	105	75.0	125	----
Cyanides (QCLot: 999042)										
WP2311225-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.256 mg/L	0.25 mg/L	102	75.0	125	----
Organic / Inorganic Carbon (QCLot: 988156)										
WP2311799-001	SW-GL	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 990403)										
WP2311799-001	SW-GL	Mercury, total	7439-97-6	E508	0.000102 mg/L	0.0001 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 990222)										
WP2311380-006	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.202 mg/L	0.2 mg/L	101	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00985 mg/L	0.01 mg/L	98.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 990222) - continued										
WP2311380-006	Anonymous	Iron, dissolved	7439-89-6	E421	1.93 mg/L	2 mg/L	96.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0383 mg/L	0.04 mg/L	95.9	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.98 mg/L	4 mg/L	99.5	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0383 mg/L	0.04 mg/L	95.8	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.76 mg/L	10 mg/L	97.6	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.3 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0430 mg/L	0.04 mg/L	108	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.380 mg/L	0.4 mg/L	94.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 990231)										
WP2311799-004	SW-10	Aluminum, dissolved	7429-90-5	E421	0.220 mg/L	0.2 mg/L	110	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0237 mg/L	0.02 mg/L	118	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0117 mg/L	0.01 mg/L	117	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00431 mg/L	0.004 mg/L	108	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 990231) - continued										
WP2311799-004	SW-10	Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.96 mg/L	2 mg/L	97.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0234 mg/L	0.02 mg/L	117	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0240 mg/L	0.02 mg/L	120	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.34 mg/L	4 mg/L	108	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.5 mg/L	10 mg/L	105	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00443 mg/L	0.004 mg/L	111	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.1 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00463 mg/L	0.004 mg/L	116	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0460 mg/L	0.04 mg/L	115	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0233 mg/L	0.02 mg/L	117	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00479 mg/L	0.004 mg/L	120	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.428 mg/L	0.4 mg/L	107	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0491 mg/L	0.04 mg/L	123	70.0	130	----
Dissolved Metals (QCLot: 990232)										
WP2311799-004	SW-10	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
Dissolved Metals (QCLot: 990233)										
WP2311799-004	SW-10	Phosphorus, dissolved	7723-14-0	E421.P-L	11.1 mg/L	10 mg/L	111	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 990462)										
WP2311731-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only): | **ALS Contact:** Judy Dalmaijer | **Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
	SW-GL	10-Jun-23	13:00	Water	9	X			8.14	19.92	0.063
	SW-GL-B	10-Jun-23	13:15	Water	9	X			6.44	9.2	0.064
	SW-09	10-Jun-23	10:45	Water	9	X			7.58	18.02	0.093
	SW-10	10-Jun-23	10:15	Water	9	X			7.04	17.82	0.108
	DUP-02	10-Jun-23	13:10	Water	9	X			8.14	19.92	0.063
	BLANK	10-Jun-23	13:20	Water	9	X			/	/	/

Environmental Division
Winnipeg
Work Order Reference
WP2311799

Telephone : +1 204 255 9720

SH	INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: C	Received by: SN	Date: JUN 13 2023	Time: 1:07	Received by:	Time:

18.6

11799

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2311825**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Date Analysis Commenced	: 14-Jun-2023
C-O-C number	: ----	Issue Date	: 21-Jun-2023 15:05
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Metals, Winnipeg, Manitoba
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
					Client sampling date / time	11-Jun-2023 09:30	11-Jun-2023 10:15	11-Jun-2023 11:50	----	----
						WP2311825-001	WP2311825-002	WP2311825-003	--------	--------
						Result	Result	Result	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.48	7.67	7.70	----	----
Temperature, field	----	EF001/WP	0.10	°C		18.8	20.0	20.5	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		32.2	32.7	30.7	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		32.2	32.7	30.7	----	----
Conductivity	----	E100/WP	1.0	µS/cm		77.0	76.6	74.2	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		36.4	36.4	34.5	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		35.0	37.2	34.6	----	----
pH	----	E108/WP	0.10	pH units		7.60	7.63	7.60	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		46.2	62.5	51.8	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.6	5.8	6.2	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	0.016	<0.010	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.32	2.27	2.20	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0206	0.0221	0.0212	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		4.22	4.15	4.25	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
					Client sampling date / time	11-Jun-2023 09:30	11-Jun-2023 10:15	11-Jun-2023 11:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311825-001	WP2311825-002	WP2311825-003	--------	--------
						Result	Result	Result	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0011	<0.0010	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		10.0	10.8	11.1	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.235	0.274	0.255	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00027	0.00025	0.00026	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00570	0.00582	0.00576	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00885	0.00934	0.00882	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000058	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.90	10.5	9.71	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000028	0.000032	0.000030	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00052	0.00060	0.00057	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00052	0.00060	0.00057	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00016	0.00019	0.00018	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00145	0.00155	0.00157	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.275	0.326	0.306	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000118	0.000128	0.000127	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0019	0.0019	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.51	2.68	2.51	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0131	0.0133	0.0123	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000285	0.000200	0.000184	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00136	0.00144	0.00146	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.988	1.01	0.991	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00187	0.00190	0.00210	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
					Client sampling date / time	11-Jun-2023 09:30	11-Jun-2023 10:15	11-Jun-2023 11:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311825-001	WP2311825-002	WP2311825-003	--------	--------
						Result	Result	Result	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000091	0.000106	0.000076	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.66	1.70	1.66	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.30	2.39	2.32	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0266	0.0267	0.0254	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.48	1.68	1.54	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	0.00015	<0.00010	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0107	0.0124	0.0125	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000121	0.000125	0.000112	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00086	0.00098	0.00093	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00023	0.00026	0.00024	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0206	0.0160	0.0135	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00026	0.00025	0.00024	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00520	0.00507	0.00505	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00755	0.00741	0.00719	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.91	10.0	9.52	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00013	0.00014	0.00015	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
					Client sampling date / time	11-Jun-2023 09:30	11-Jun-2023 10:15	11-Jun-2023 11:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311825-001	WP2311825-002	WP2311825-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00118	0.00119	0.00116	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.045	0.043	0.038	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0013	0.0013	0.0013	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.84	2.78	2.61	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00148	0.00096	0.00324	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000211	0.000217	0.000180	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00103	0.00106	0.00105	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.952	0.958	0.929	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00160	0.00163	0.00156	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000087	0.000112	0.000107	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.19	1.24	1.18	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.26	2.31	2.17	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0295	0.0292	0.0279	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.51	1.76	1.77	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00072	0.00054	0.00042	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000114	0.000113	0.000104	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0010	<0.0010	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
					Client sampling date / time	11-Jun-2023 09:30	11-Jun-2023 10:15	11-Jun-2023 11:50	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2311825-001	WP2311825-002	WP2311825-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2311825**	Page	: 1 of 18
Client	: **Kinross Gold Corporation**	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Issue Date	: 21-Jun-2023 15:06
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-DS	E303	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-FDP	E303	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-REF	E303	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.Cl-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO3-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO2-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	11-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	11-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	11-Jun-2023	14-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E339-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E339-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E339-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E333-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E333-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E333-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E336-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E336-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E336-L	11-Jun-2023	21-Jun-2023	----	----		21-Jun-2023	14 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-DS	E421.Cr-L	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-FDP	E421.Cr-L	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-REF	E421.Cr-L	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-DS	E509	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-DS	EF001	11-Jun-2023	----	----	----		14-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-FDP	EF001	11-Jun-2023	----	----	----		14-Jun-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-REF	EF001	11-Jun-2023	----	----	----		14-Jun-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-DS	E358-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-FDP	E358-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-REF	E358-L	11-Jun-2023	14-Jun-2023	----	----		14-Jun-2023	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-DS	E283	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	11-Jun-2023	----	----	----		15-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	11-Jun-2023	----	----	----		15-Jun-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	11-Jun-2023	----	----	----		15-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	11-Jun-2023	----	----	----		15-Jun-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	11-Jun-2023	----	----	----		15-Jun-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	11-Jun-2023	----	----	----		15-Jun-2023	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	11-Jun-2023	15-Jun-2023	----	----		15-Jun-2023	28 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	11-Jun-2023	16-Jun-2023	----	----		16-Jun-2023	180 days	5 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	992752	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	990122	1	16	6.2	5.0	✓
Ammonia in Water by Colour	E303	988725	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	989913	1	3	33.3	5.0	✓
Conductivity in Water	E100	990121	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990232	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990231	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990233	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	989911	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	989912	1	3	33.3	5.0	✓
pH by Meter	E108	990120	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	989910	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	988811	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992619	0	3	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	992618	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992620	0	6	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	992752	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	990122	1	16	6.2	5.0	✓
Ammonia in Water by Colour	E303	988725	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	989913	1	3	33.3	5.0	✓
Conductivity in Water	E100	990121	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990232	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990231	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990233	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	989911	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	989912	1	3	33.3	5.0	✓
pH by Meter	E108	990120	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	989910	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	988811	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992619	1	3	33.3	5.0	✓
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	992618	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992620	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	992752	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	990122	1	16	6.2	5.0	✓
Ammonia in Water by Colour	E303	988725	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	989913	1	3	33.3	5.0	✓
Conductivity in Water	E100	990121	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990232	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990231	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990233	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	989911	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	989912	1	3	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	989910	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	988811	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992619	1	3	33.3	5.0	✓
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	992618	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992620	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	988808	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	988725	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	989913	1	3	33.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	990232	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	990462	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	990231	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	988156	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	990233	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	999041	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	989911	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	989912	1	3	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	989910	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	992619	0	3	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	999042	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	990403	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	992618	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	989853	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	992620	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	999040	1	13	7.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Winnipeg - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Winnipeg - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L Winnipeg - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L Winnipeg - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Winnipeg - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Waterloo - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Winnipeg - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 Winnipeg - Environmental	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L Waterloo - Environmental	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L Waterloo - Environmental	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Winnipeg - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L Winnipeg - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Winnipeg - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L Winnipeg - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 Winnipeg - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Winnipeg - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A Winnipeg - Environmental	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N Winnipeg - Environmental	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A Winnipeg - Environmental	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 Winnipeg - Environmental	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Winnipeg - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 Winnipeg - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Winnipeg - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Winnipeg - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2311825**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: Winnipeg - Environmental
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Jun-2023 16:07
PO	: ----	Date Analysis Commenced	: 14-Jun-2023
C-O-C number	: ----	Issue Date	: 21-Jun-2023 15:08
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Winnipeg Metals, Winnipeg, Manitoba
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 988808)											
WP2311825-001	CR-FDP	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.6	6.2	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 988811)											
WP2311752-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	864	858	0.639%	20%	----
Physical Tests (QC Lot: 988812)											
WP2311825-002	CR-DS	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	62.5	61.8	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 990120)											
WP2311807-003	Anonymous	pH	----	E108	0.10	pH units	8.47	8.46	0.118%	4%	----
Physical Tests (QC Lot: 990121)											
WP2311807-003	Anonymous	Conductivity	----	E100	2.0	µS/cm	714	723	1.25%	10%	----
Physical Tests (QC Lot: 990122)											
WP2311807-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	333	337	1.28%	20%	----
Physical Tests (QC Lot: 992752)											
HA2300279-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.3	3.8	0.5	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 988725)											
WP2311948-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 989853)											
WP2311651-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	3.82	3.79	0.935%	20%	----
Anions and Nutrients (QC Lot: 989910)											
WP2311825-001	CR-FDP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.22	4.16	1.35%	20%	----
Anions and Nutrients (QC Lot: 989911)											
WP2311825-001	CR-FDP	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 989912)											
WP2311825-001	CR-FDP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 989913)											
WP2311825-001	CR-FDP	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.32	2.25	2.92%	20%	----
Cyanides (QC Lot: 999040)											
WP2311225-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0011	0.0011	0.00004	Diff <2x LOR	----
Cyanides (QC Lot: 999041)											
WP2311225-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 999042)											

Sub-Matrix: **Water**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Cyanides (QC Lot: 999042) - continued											
WP2311225-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0023	0.0018	0.0005	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 988156)											
TY2305274-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	13.0	13.4	2.77%	20%	----
Total Metals (QC Lot: 990403)											
WP2311463-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000170	0.0000176	0.0000005	Diff <2x LOR	----
Total Metals (QC Lot: 992618)											
WP2311813-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0295	0.0296	0.00008	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00048	0.00048	0.000010	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00084	0.00081	0.00003	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0171	0.0168	1.59%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	0.000051	<0.000050	0.000001	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.286	0.282	1.41%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000074	0.0000089	0.0000014	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	85.4	83.7	2.01%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000090	0.000089	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00072	<0.00050	0.00022	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00046	0.00047	0.000008	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00078	0.00080	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.045	0.040	0.004	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000349	0.000350	0.000001	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0753	0.0769	2.15%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	40.4	40.1	0.813%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.187	0.190	1.12%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00465	0.00464	0.332%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00832	0.00835	0.389%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.097	0.133	0.036	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	29.2	29.8	1.78%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0208	0.0210	0.884%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000670	0.000641	4.47%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.27	5.28	0.119%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	175	174	0.560%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.284	0.276	2.75%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 992618) - continued											
WP2311813-002	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	141	138	2.36%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000879	0.000882	0.404%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00096	0.00095	0.000004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0414	0.0425	2.60%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990231)											
WP2311799-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0931	0.0951	2.16%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00283	0.00281	0.823%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0119	0.0119	0.204%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.011	0.010	0.0004	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000056	<0.0000050	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	16.4	15.9	2.87%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00017	0.00016	0.00001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00311	0.00311	0.0788%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.394	0.395	0.209%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000117	0.000112	0.000005	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0028	0.0026	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	5.44	5.52	1.63%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0442	0.0444	0.343%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000647	0.000665	2.73%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00110	0.00112	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.08	1.11	2.88%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 990231) - continued											
WP2311799-004	Anonymous	Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00111	0.00116	0.00005	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000132	0.000099	0.000033	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.08	3.06	0.799%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.13	2.16	1.42%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0351	0.0357	1.68%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00238	0.00221	0.00017	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000148	0.000148	0.364%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00062	0.00064	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0030	0.0032	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00048	0.00051	0.00003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990232)											
WP2311799-004	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00042	0.00043	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990233)											
WP2311799-004	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 990462)											
WP2311731-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 988808)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 988811)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 988812)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 990121)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 990122)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 992752)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 988725)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 989853)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 989910)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 989911)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 989912)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 989913)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Cyanides (QCLot: 999040)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 999041)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 999042)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 988156)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 990403)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 990403) - continued						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 992618)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 992618) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 992619)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 992620)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 990231)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 990231) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 990232)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 990233)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 990462)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 988808)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 988811)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.2	85.0	115	----
Physical Tests (QCLot: 988812)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.2	85.0	115	----
Physical Tests (QCLot: 990120)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 990121)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	95.8	90.0	110	----
Physical Tests (QCLot: 990122)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	103	85.0	115	----
Physical Tests (QCLot: 992752)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	97.3	85.0	115	----
Anions and Nutrients (QCLot: 988725)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	99.5	85.0	115	----
Anions and Nutrients (QCLot: 989853)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.1	80.0	120	----
Anions and Nutrients (QCLot: 989910)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 989911)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 989912)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 989913)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	102	90.0	110	----
Cyanides (QCLot: 999040)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	104	80.0	120	----
Cyanides (QCLot: 999041)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	92.0	80.0	120	----
Cyanides (QCLot: 999042)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Cyanides (QCLot: 999042) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	95.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 988156)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	116	80.0	120	----
Total Metals (QCLot: 990403)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Total Metals (QCLot: 992618)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	106	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	107	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	107	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	104	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 992618) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	106	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	108	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	111	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Total Metals (QCLot: 992619)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Total Metals (QCLot: 992620)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 990231)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	110	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.5	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.7	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	107	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.2	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 990231) - continued									
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	114	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.6	80.0	120	----
Dissolved Metals (QCLot: 990232)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	107	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 988725)										
WP2311948-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.267 mg/L	0.25 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 989853)										
WP2311799-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.245 mg/L	0.25 mg/L	97.9	70.0	130	----
Anions and Nutrients (QCLot: 989910)										
WP2311825-001	CR-FDP	Sulfate (as SO4)	14808-79-8	E235.SO4	115 mg/L	100 mg/L	115	75.0	125	----
Anions and Nutrients (QCLot: 989911)										
WP2311825-001	CR-FDP	Nitrate (as N)	14797-55-8	E235.NO3-L	2.82 mg/L	2.5 mg/L	113	75.0	125	----
Anions and Nutrients (QCLot: 989912)										
WP2311825-001	CR-FDP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.577 mg/L	0.5 mg/L	115	75.0	125	----
Anions and Nutrients (QCLot: 989913)										
WP2311825-001	CR-FDP	Chloride	16887-00-6	E235.Cl-L	115 mg/L	100 mg/L	115	75.0	125	----
Cyanides (QCLot: 999040)										
WP2311225-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.147 mg/L	0.125 mg/L	118	75.0	125	----
Cyanides (QCLot: 999041)										
WP2311225-001	Anonymous	Cyanide, free	----	E339-L	0.132 mg/L	0.125 mg/L	105	75.0	125	----
Cyanides (QCLot: 999042)										
WP2311225-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.256 mg/L	0.25 mg/L	102	75.0	125	----
Organic / Inorganic Carbon (QCLot: 988156)										
WP2311799-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 990403)										
WP2311799-001	Anonymous	Mercury, total	7439-97-6	E508	0.000102 mg/L	0.0001 mg/L	102	70.0	130	----
Total Metals (QCLot: 992618)										
WP2311813-002	Anonymous	Aluminum, total	7429-90-5	E420	0.200 mg/L	0.2 mg/L	99.9	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00996 mg/L	0.01 mg/L	99.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 992618) - continued										
WP2311813-002	Anonymous	Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00371 mg/L	0.004 mg/L	92.9	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00948 mg/L	0.01 mg/L	94.8	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Copper, total	7440-50-8	E420	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Iron, total	7439-89-6	E420	2.03 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0942 mg/L	0.1 mg/L	94.2	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0377 mg/L	0.04 mg/L	94.3	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.8 mg/L	10 mg/L	108	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0397 mg/L	0.04 mg/L	99.3	70.0	130	----
		Silicon, total	7440-21-3	E420	9.62 mg/L	10 mg/L	96.2	70.0	130	----
		Silver, total	7440-22-4	E420	0.00367 mg/L	0.004 mg/L	91.7	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0392 mg/L	0.04 mg/L	98.1	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00357 mg/L	0.004 mg/L	89.2	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Tin, total	7440-31-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0446 mg/L	0.04 mg/L	111	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.380 mg/L	0.4 mg/L	94.9	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 990231)										
WP2311799-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.220 mg/L	0.2 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 990231) - continued										
WP2311799-004	Anonymous	Antimony, dissolved	7440-36-0	E421	0.0237 mg/L	0.02 mg/L	118	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0117 mg/L	0.01 mg/L	117	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00431 mg/L	0.004 mg/L	108	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.96 mg/L	2 mg/L	97.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0234 mg/L	0.02 mg/L	117	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0240 mg/L	0.02 mg/L	120	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.34 mg/L	4 mg/L	108	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.5 mg/L	10 mg/L	105	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00443 mg/L	0.004 mg/L	111	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.1 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00463 mg/L	0.004 mg/L	116	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0460 mg/L	0.04 mg/L	115	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0233 mg/L	0.02 mg/L	117	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00479 mg/L	0.004 mg/L	120	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 990231) - continued										
WP2311799-004	Anonymous	Vanadium, dissolved	7440-62-2	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.428 mg/L	0.4 mg/L	107	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0491 mg/L	0.04 mg/L	123	70.0	130	----
Dissolved Metals (QCLot: 990232)										
WP2311799-004	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
Dissolved Metals (QCLot: 990233)										
WP2311799-004	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	11.1 mg/L	10 mg/L	111	70.0	130	----
Dissolved Metals (QCLot: 990462)										
WP2311731-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
	CR-FDP	11-Jun-23	9:30	Water	9	X			7.48	18.8	0.074
	CR-DS	11-Jun-23	10:15	Water	9	X			7.67	19.95	0.076
	CR-REF	11-Jun-23	11:50	Water	9	X			7.7	20.51	0.073

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: 12 - Jun - 23	Time:	Received by: SD	Date: JUN 13 2023	Time: 4:07	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2311825

Telephone : +1 204 255 9720

6

11825

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2316171**	Page	: 1 of 11
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Date Analysis Commenced	: 20-Jul-2023
C-O-C number	: ----	Issue Date	: 27-Jul-2023 14:41
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Wayne Smith	Client Services Specialist	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Sample Comments

Sample	Client Id	*Comment*
WP2316171-001	SW-15	Sample(s) 7,10 Hg-D Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	CR-REF	SW-TR	FIELD BLANK-01	SW-01
					Client sampling date / time	16-Jul-2023 08:10	16-Jul-2023 09:00	16-Jul-2023 09:45	16-Jul-2023 09:45	16-Jul-2023 10:50
						WP2316171-001	WP2316171-002	WP2316171-003	WP2316171-004	WP2316171-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.76	7.60	5.05	----	6.29
Temperature, field	----	EF001/WP	0.10	°C		18.1	18.9	16.4	----	18.1
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	14.4	<2.0	3.6
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		82.1	33.3	<1.0	<1.0	13.5
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		82.1	33.3	<1.0	<1.0	13.5
Conductivity	----	E100/WP	1.0	µS/cm		163	87.9	26.2	<1.0	46.2
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		87.1	40.8	9.42	<0.50	27.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		91.0	41.4	9.56	<0.50	27.3
pH	----	E108/WP	0.10	pH units		7.84	7.59	4.82	5.41	6.58
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		116	61.7	84.5	<3.0	91.2
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		2.4	25.0	175	<1.0	4.2
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.024	0.053	0.053	0.024	0.024
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.41	2.25	0.10	<0.10	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0126	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0139	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0013	0.0012	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0287	0.0482	0.120	<0.0020	0.0364
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.63	4.89	0.48	<0.30	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0012	0.0013	0.0019	<0.0010	0.0016
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0016	0.0013	0.0014	<0.0010	0.0016
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0018	0.0010	0.0012	0.0010	0.0020

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	CR-REF	SW-TR	FIELD BLANK-01	SW-01
					Client sampling date / time	16-Jul-2023 08:10	16-Jul-2023 09:00	16-Jul-2023 09:45	16-Jul-2023 09:45	16-Jul-2023 10:50
						WP2316171-001	WP2316171-002	WP2316171-003	WP2316171-004	WP2316171-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		22.7	13.2	45.4	<0.50	42.0
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.183	0.550	0.961	<0.0030	0.215
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00035	0.00022	<0.00010	0.00018
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00400	0.0103	0.00803	<0.00010	0.00451
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0152	0.0128	0.0144	<0.00010	0.00575
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000031	0.000047	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000108	0.0000397	<0.0000050	0.0000055
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		25.7	11.7	2.33	<0.050	7.40
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000020	0.000076	0.000157	<0.000010	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00061	0.00119	0.00148	<0.00010	0.00070
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00061	0.00119	0.00148	<0.00050	0.00070
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00017	0.00037	0.00051	<0.00010	0.00016
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00109	0.00216	0.00179	<0.00050	0.00066
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.518	0.659	1.32	<0.010	0.573
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000131	0.000335	0.00114	<0.000050	0.000099
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0050	0.0032	0.0018	<0.0010	0.0020
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		6.51	2.95	0.908	<0.0050	2.14
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0480	0.0189	0.0208	<0.00010	0.0136
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000075	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000968	0.000291	0.000209	<0.000050	0.000080
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00096	0.00215	0.00136	<0.00050	0.00085
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.034	0.039	0.201	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	0.201	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.53	1.10	0.337	<0.050	0.107
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00200	0.00300	0.00195	<0.00020	0.00048
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000130	0.000126	0.000235	<0.000050	0.000174
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.75	2.56	0.72	<0.10	0.27
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	CR-REF	SW-TR	FIELD BLANK-01	SW-01
					Client sampling date / time	16-Jul-2023 08:10	16-Jul-2023 09:00	16-Jul-2023 09:45	16-Jul-2023 09:45	16-Jul-2023 10:50
						WP2316171-001	WP2316171-002	WP2316171-003	WP2316171-004	WP2316171-005
						Result	Result	Result	Result	Result
Total Metals										
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.69	2.36	0.902	<0.050	1.20
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0512	0.0334	0.0140	<0.00020	0.0233
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.90	1.73	0.64	<0.50	0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000011	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00018	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010 RRV	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00818	0.0279	0.0250	<0.00030	0.00263
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000307	0.000214	0.000218	<0.000010	0.000059
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00134	0.00168	0.00163	<0.00050	0.00052
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0071	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00045	0.00035	0.00036	<0.00020	0.00030
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0389	0.0210	0.589	<0.0010	0.218
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	0.00029	0.00016	<0.00010	0.00011
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00376	0.00867	0.00704	<0.00010	0.00475
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0130	0.00856	0.00617	<0.00010	0.00510
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	0.000026	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000191	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		23.4	11.6	2.26	<0.050	7.31
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000024	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00030	0.00013	0.00093	<0.00010	0.00065
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00093	<0.00050	0.00065
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00041	<0.00010	0.00014
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00089	0.00126	0.00078	<0.00020	0.00066
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.294	0.034	0.996	<0.010	0.476
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000069	<0.000050	0.000276	<0.000050	0.000092
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0037	0.0016	0.0012	<0.0010	0.0013

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	CR-REF	SW-TR	FIELD BLANK-01	SW-01
					Client sampling date / time	16-Jul-2023 08:10	16-Jul-2023 09:00	16-Jul-2023 09:45	16-Jul-2023 09:45	16-Jul-2023 10:50
						WP2316171-001	WP2316171-002	WP2316171-003	WP2316171-004	WP2316171-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		6.96	2.87	0.917	<0.0050	2.31
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00374	0.00218	0.0182	<0.00010	0.0108
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000904	0.000263	0.000062	<0.000050	0.000061
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00081	0.00114	0.00093	<0.00050	0.00092
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.45	1.01	0.112	<0.050	0.076
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00164	0.00179	0.00064	<0.00020	0.00040
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000113	0.000092	0.000184	<0.000050	0.000180
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.31	1.53	0.362	<0.050	0.211
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.73	2.30	0.833	<0.050	1.24
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0469	0.0297	0.0115	<0.00020	0.0221
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.87	1.96	0.52	<0.50	0.56
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00015	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00453 RRV	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00205	0.00069	0.00843	<0.00030	0.00230
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000317	0.000137	0.000081	<0.000010	0.000066
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00080	0.00052	0.00065	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0055	<0.0010	0.0020
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00043	<0.00030	0.00037	<0.00030	0.00038
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	DUP-01	SW-11	SW-08A	SW-08	TRAVEL BLANK-01
				Client sampling date / time	16-Jul-2023 10:50	16-Jul-2023 12:30	16-Jul-2023 13:00	16-Jul-2023 14:50	16-Jul-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2316171-006	WP2316171-007	WP2316171-008	WP2316171-009	WP2316171-010
					Result	Result	Result	Result	Result
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.29	6.99	7.47	7.49	----
Temperature, field	----	EF001/WP	0.10	°C	18.1	15.0	16.1	15.9	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	3.2	3.5	2.4	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	13.6	110	108	109	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	13.6	110	108	109	<1.0
Conductivity	----	E100/WP	1.0	µS/cm	46.3	215	211	212	<1.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	28.4	110	108	107	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	27.8	120	110	112	<0.50
pH	----	E108/WP	0.10	pH units	6.58	7.27	7.81	7.89	5.43
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	82.0	258	135	153	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	3.5	80.6	7.8	7.0	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	0.016	0.163	0.028	0.021	<0.010
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	<0.10	4.95	2.05	2.29	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	0.0271	0.0050	<0.0050	0.0087
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	0.0335	<0.0051	<0.0051	0.0087
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	0.0064	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0262	1.21	0.0618	0.0700	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	<0.30	1.35	2.79	3.18	<0.30
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0017	0.0027	0.0019	0.0018	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0018	0.0024	0.0022	0.0020	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	0.0021	0.0028	0.0018	0.0018	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP-01	SW-11	SW-08A	SW-08	TRAVEL BLANK-01
					Client sampling date / time	16-Jul-2023 10:50	16-Jul-2023 12:30	16-Jul-2023 13:00	16-Jul-2023 14:50	16-Jul-2023 00:00
						WP2316171-006	WP2316171-007	WP2316171-008	WP2316171-009	WP2316171-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		41.7	52.6	20.6	19.3	0.78
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.219	3.92	0.501	0.388	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00015	0.00022	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00460	0.0173	0.00378	0.00357	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00521	0.0700	0.0386	0.0370	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000021	0.000108	0.000023	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000912	0.0000097	0.0000086	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		7.60	30.8	30.5	31.1	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000297	0.000037	0.000020	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00063	0.00565	0.00095	0.00066	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00063	0.00565	0.00095	0.00066	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00013	0.00400	0.00033	0.00026	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00068	0.00695	0.00168	0.00153	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.531	5.49	0.948	0.850	<0.010
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000088	0.00124	0.000331	0.000297	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	0.0072	0.0047	0.0046	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.14	10.6	8.32	8.33	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0103 RRV	1.12	0.243	0.222	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000123	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000072	0.00296	0.000779	0.000765	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00087	0.00699	0.00135	0.00123	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.206	0.074	0.066	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.206	0.074	0.066	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.076	4.15	2.23	2.19	<0.050
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00047	0.00773	0.00330	0.00292	<0.00020
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000176	0.000264	0.000104	0.000132	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.26	13.5	4.09	3.94	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	0.000569	0.000014	0.000012	<0.000010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP-01	SW-11	SW-08A	SW-08	TRAVEL BLANK-01
					Client sampling date / time	16-Jul-2023 10:50	16-Jul-2023 12:30	16-Jul-2023 13:00	16-Jul-2023 14:50	16-Jul-2023 00:00
						WP2316171-006	WP2316171-007	WP2316171-008	WP2316171-009	WP2316171-010
						Result	Result	Result	Result	Result
Total Metals										
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.21	12.3	4.64	4.63	<0.050
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0236	0.0763	0.0632	0.0652	<0.00020
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	1.00	1.23	1.35	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000066	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00064	0.00013	0.00012	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00250	0.133	0.0178	0.0117	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	0.00496	0.00081	0.00083	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000058	0.000278	0.000854	0.000913	<0.000010
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	0.00619	0.00214	0.00183	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0091	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00034	0.00168	0.00049	0.00045	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.233	1.17	0.123	0.133	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00010	0.00020	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00487	0.0138	0.00361	0.00358	<0.00010
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00536	0.0344	0.0339	0.0332	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000022	0.000036	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000060	0.0000597	0.0000061	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		7.45	28.8	30.4	30.0	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	0.000078	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00065	0.00264	0.00038	0.00036	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00065	0.00264	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00019	0.00102	0.00020	0.00020	<0.00010
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00069	0.00501	0.00133	0.00165	<0.00020
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.567	2.59	0.556	0.536	<0.010
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000115	0.000463	0.000202	0.000209	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0015	0.0039	0.0034	0.0036	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP-01	SW-11	SW-08A	SW-08	TRAVEL BLANK-01
					Client sampling date / time	16-Jul-2023 10:50	16-Jul-2023 12:30	16-Jul-2023 13:00	16-Jul-2023 14:50	16-Jul-2023 00:00
						WP2316171-006	WP2316171-007	WP2316171-008	WP2316171-009	WP2316171-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.38	9.35	7.85	7.90	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0141 RRV	0.215	0.209	0.193	<0.00010
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	0.0000143	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000061	0.00283	0.000752	0.000754	<0.000050
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00090	0.00518	0.00102	0.00111	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.110	0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	0.110	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.136	3.39	2.02	2.06	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00050	0.00428	0.00264	0.00253	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000174	0.000279	0.000124	0.000135	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.317	9.93	3.46	3.47	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	0.000174	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.22	10.6	4.26	4.45	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0216	0.0691	0.0640	0.0641	<0.00020
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.52	0.98	1.30	1.38	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	0.000033	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00011	0.00060	0.00011	0.00012	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00273	0.0433	0.00532	0.00611	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	0.00309	0.00083	0.00082	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000065	0.000218	0.000912	0.000986	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00263	0.00130	0.00129	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0019	0.0040	0.0012	0.0016	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00037	0.00218	0.00049	0.00054	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Laboratory	Field	Field	Laboratory
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Laboratory	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2316171**	Page	: 1 of 38
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Issue Date	: 27-Jul-2023 14:41
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1049395 001	----	Silicon, dissolved	7440-21-3	E421	0.056 B mg/L	0.05 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Recoveries								
Total Metals	QC-MRG6-1052448 002	----	Antimony, total	7440-36-0	E420	127 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-REF	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-01	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) FIELD BLANK-01	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-01	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-08	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-08A	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-11	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-15	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-TR	E303	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) TRAVEL BLANK-01	E303	16-Jul-2023	20-Jul-2023	28 days	5 days	✓	20-Jul-2023	23 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-01	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] FIELD BLANK-01	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-11	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-15	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TR	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
TRAVEL BLANK-01	E235.Cl-L	16-Jul-2023	20-Jul-2023	28 days	5 days	✓	20-Jul-2023	23 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
FIELD BLANK-01	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-11	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-15	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TR	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
TRAVEL BLANK-01	E235.NO3-L	16-Jul-2023	20-Jul-2023	7 days	5 days	✓	20-Jul-2023	2 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
FIELD BLANK-01	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-11	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-15	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TR	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	4 days	✓	20-Jul-2023	3 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
TRAVEL BLANK-01	E235.NO2-L	16-Jul-2023	20-Jul-2023	7 days	5 days	✓	20-Jul-2023	2 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
CR-REF	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP-01	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
FIELD BLANK-01	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-01	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08A	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-11	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-15	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-TR	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK-01	E235.SO4	16-Jul-2023	20-Jul-2023	28 days	5 days	✓	20-Jul-2023	23 days	0 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
TRAVEL BLANK-01	E372-U	16-Jul-2023	25-Jul-2023	28 days	10 days	✓	26-Jul-2023	18 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-REF	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-01	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
FIELD BLANK-01	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-01	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08A	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-11	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-15	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TR	E372-U	16-Jul-2023	25-Jul-2023	28 days	9 days	✓	26-Jul-2023	19 days	1 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD BLANK-01	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK-01	E339-L	16-Jul-2023	24-Jul-2023	14 days	9 days	✓	24-Jul-2023	5 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD BLANK-01	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK-01	E333-L	16-Jul-2023	24-Jul-2023	14 days	9 days	✓	24-Jul-2023	5 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD BLANK-01	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	16-Jul-2023	24-Jul-2023	14 days	8 days	✓	24-Jul-2023	6 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK-01	E336-L	16-Jul-2023	24-Jul-2023	14 days	9 days	✓	24-Jul-2023	5 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE - dissolved (lab filtered)										
SW-08A	E421.Cr-L	16-Jul-2023	21-Jul-2023	0.89 hrs	5 hrs	✗ EHTR-FM	21-Jul-2023	-109.69 hrs	0.89 hrs	✗ UCP
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
FIELD BLANK-01	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-15	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TR	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) TRAVEL BLANK-01	E421.Cr-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab filtered) SW-08A	E509	16-Jul-2023	24-Jul-2023	0.05 hrs	0 hrs	✗ EHTR-FM	24-Jul-2023	-191.39 hrs	0.05 hrs	✗ UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-01	E509	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) FIELD BLANK-01	E509	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-15	E509	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) TRAVEL BLANK-01	E509	16-Jul-2023	24-Jul-2023	28 days	9 days	✓	24-Jul-2023	19 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab filtered) SW-08A	E421	16-Jul-2023	21-Jul-2023	0.89 hrs	5 hrs	× EHTR-FM	21-Jul-2023	-109.69 hrs	0.89 hrs	× UCP
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-01	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) FIELD BLANK-01	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓

Matrix: **Water**

Evaluation: ✖ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-11	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-15	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) TRAVEL BLANK-01	E421	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE - dissolved (lab filtered) SW-08A	E421.P-L	16-Jul-2023	21-Jul-2023	0.89 hrs	5 hrs	✖ EHTR-FM	21-Jul-2023	-109.69 hrs	0.89 hrs	✖ UCP
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-01	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) FIELD BLANK-01	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-01	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-11	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-15	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK-01	E421.P-L	16-Jul-2023	21-Jul-2023	180 days	5 days	✓	21-Jul-2023	175 days	0 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	16-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-01	EF001	16-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	16-Jul-2023	----	----	----		20-Jul-2023	----	----	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08	EF001	16-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08A	EF001	16-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	16-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-15	EF001	16-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	16-Jul-2023	----	----	----		20-Jul-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-01	E358-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
FIELD BLANK-01	E358-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-11	E358-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-15	E358-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TR	E358-L	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) TRAVEL BLANK-01	E358-L	16-Jul-2023	20-Jul-2023	28 days	5 days	✓	20-Jul-2023	23 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (lab preserved) SW-08A	E358-L	16-Jul-2023	20-Jul-2023	3 days	4 days	× EHTR	20-Jul-2023	28 days	0 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP-01	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE FIELD BLANK-01	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08A	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-11	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-15	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	16-Jul-2023	22-Jul-2023	14 days	6 days	✓	25-Jul-2023	8 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE TRAVEL BLANK-01	E283	16-Jul-2023	22-Jul-2023	14 days	7 days	✓	25-Jul-2023	7 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-01	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] FIELD BLANK-01	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08A	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-11	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-15	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] TRAVEL BLANK-01	E290	16-Jul-2023	20-Jul-2023	14 days	5 days	✓	20-Jul-2023	9 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-01	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] FIELD BLANK-01	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08A	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-15	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	16-Jul-2023	20-Jul-2023	28 days	4 days	✓	20-Jul-2023	24 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] TRAVEL BLANK-01	E100	16-Jul-2023	20-Jul-2023	28 days	5 days	✓	20-Jul-2023	23 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-01	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] FIELD BLANK-01	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08A	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-15	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	16-Jul-2023	20-Jul-2023	14 days	4 days	✓	20-Jul-2023	10 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] TRAVEL BLANK-01	E108	16-Jul-2023	20-Jul-2023	14 days	5 days	✓	20-Jul-2023	9 days	0 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-01	E162-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] FIELD BLANK-01	E162-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08A	E162-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-15	E162-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	16-Jul-2023	----	----	----		21-Jul-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-01	E160-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] FIELD BLANK-01	E160-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-15	E160-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	16-Jul-2023	----	----	----		20-Jul-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	16-Jul-2023	----	----	----		21-Jul-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) FIELD BLANK-01	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-15	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) TRAVEL BLANK-01	E420.Cr-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) FIELD BLANK-01	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-15	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	16-Jul-2023	24-Jul-2023	28 days	8 days	✓	24-Jul-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) TRAVEL BLANK-01	E508	16-Jul-2023	24-Jul-2023	28 days	9 days	✓	24-Jul-2023	19 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-01	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) FIELD BLANK-01	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-15	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) TRAVEL BLANK-01	E420	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-01	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) FIELD BLANK-01	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-15	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) TRAVEL BLANK-01	E420.P-L	16-Jul-2023	24-Jul-2023	180 days	8 days	✓	24-Jul-2023	172 days	0 days	✓

Legend & Qualifier Definitions

EHTR: Exceeded ALS recommended hold time prior to sample receipt.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1051528	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1048264	2	31	6.4	5.0	✓
Ammonia in Water by Colour	E303	1048635	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048266	2	28	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	0	15	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	0	15	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1053056	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
pH by Meter	E108	1048265	2	38	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048506	1	28	3.5	5.0	✗
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052453	0	19	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1053057	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1052993	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052448	1	39	2.5	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055623	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052451	0	24	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1048498	1	28	3.5	5.0	✗
WAD Cyanide (Low Level)	E336-L	1053055	1	18	5.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1051528	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1048264	2	31	6.4	5.0	✓
Ammonia in Water by Colour	E303	1048635	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048266	2	28	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	1	15	6.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1053056	1	18	5.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
pH by Meter	E108	1048265	2	38	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048506	1	28	3.5	5.0	×
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052453	2	19	10.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1053057	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1052993	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052448	2	39	5.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055623	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052451	2	24	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1048498	1	28	3.5	5.0	×
WAD Cyanide (Low Level)	E336-L	1053055	1	18	5.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1051528	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1048264	2	31	6.4	5.0	✓
Ammonia in Water by Colour	E303	1048635	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048266	2	28	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	1	15	6.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1053056	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048506	1	28	3.5	5.0	×
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052453	2	19	10.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1053057	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1052993	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052448	2	39	5.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055623	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052451	2	24	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1048498	1	28	3.5	5.0	×
WAD Cyanide (Low Level)	E336-L	1053055	1	18	5.5	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1048635	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	0	15	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	0	15	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1053056	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052453	0	19	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1053057	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1052993	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052448	1	39	2.5	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055623	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052451	0	24	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1053055	1	18	5.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2316171**	Page	: 1 of 22
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Date Analysis Commenced	: 20-Jul-2023
C-O-C number	: ----	Issue Date	: 27-Jul-2023 14:43
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Wayne Smith	Client Services Specialist	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1048264)											
WP2316202-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	199	203	1.84%	20%	----
Physical Tests (QC Lot: 1048265)											
WP2316202-001	Anonymous	pH	----	E108	0.10	pH units	7.75	7.78	0.386%	4%	----
Physical Tests (QC Lot: 1048266)											
WP2316171-001	SW-15	Conductivity	----	E100	1.0	µS/cm	163	164	0.429%	10%	----
Physical Tests (QC Lot: 1048321)											
WP2316157-001	Anonymous	pH	----	E108	0.10	pH units	8.40	8.39	0.119%	4%	----
Physical Tests (QC Lot: 1048322)											
WP2316157-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1680	1690	0.534%	10%	----
Physical Tests (QC Lot: 1048323)											
WP2316157-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	696	708	1.80%	20%	----
Physical Tests (QC Lot: 1048498)											
WP2316126-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.7	mg/L	73.8	86.7	16.1%	20%	----
Physical Tests (QC Lot: 1048506)											
WP2316126-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	553	586	5.79%	20%	----
Physical Tests (QC Lot: 1051528)											
BF2300146-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048225)											
WP2316178-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.48	4.48	0.120%	20%	----
Anions and Nutrients (QC Lot: 1048226)											
WP2316178-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048227)											
WP2316178-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048228)											
WP2316178-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.39	2.39	0.0736%	20%	----
Anions and Nutrients (QC Lot: 1048635)											
WP2316195-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.012	0.011	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1055623)											
WP2316136-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0134	0.0130	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1055628)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1055628) - continued											
WP2316171-007	SW-11	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.21	1.19	1.15%	20%	----
Cyanides (QC Lot: 1053055)											
WP2316171-001	SW-15	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0018	0.0019	0.0001	Diff <2x LOR	----
Cyanides (QC Lot: 1053056)											
WP2316171-001	SW-15	Cyanide, free	----	E339-L	0.0010	mg/L	0.0012	0.0013	0.00008	Diff <2x LOR	----
Cyanides (QC Lot: 1053057)											
WP2316171-001	SW-15	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0016	0.0020	0.0004	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1048190)											
WP2316142-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	3.18	3.02	0.17	Diff <2x LOR	----
Total Metals (QC Lot: 1052448)											
WP2316136-001	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00044	0.00045	0.000010	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0221	0.0221	0.0945%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.018	0.018	0.0005	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	12.4	12.4	0.496%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00079	0.00071	0.00008	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.044	0.044	0.00010	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0016	0.0016	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.82	2.86	1.21%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0328	0.0324	1.33%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000143	0.000143	0.00000003	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	2.00	1.98	1.24%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00297	0.00303	2.05%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000090	0.000071	0.000019	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1052448) - continued											
WP2316136-001	Anonymous	Silicon, total	7440-21-3	E420	0.10	mg/L	0.68	0.68	0.009	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	15.7	15.7	0.103%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0605	0.0586	3.06%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1.29	1.35	0.06	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000026	0.000028	0.000002	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1052993)											
WP2316136-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1052994)											
WP2316171-004	FIELD BLANK-01	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1049395)											
WP2316126-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0014	0.0014	0.00004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00057	0.00056	0.000004	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00677	0.00671	1.02%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0221	0.0213	3.53%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.125	0.134	7.65%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000054	<0.0000050	0.0000004	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	72.5	77.1	6.14%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000012	0.000011	0.0000008	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00031	0.00030	0.000005	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00183	0.00174	0.00009	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1049395) - continued											
WP2316126-001	Anonymous	Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0637	0.0635	0.398%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	51.2	43.6	15.9%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00109	0.00105	4.04%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00650	0.00618	4.94%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00513	0.00494	3.73%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	9.08	8.42	7.50%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00285	0.00269	5.73%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00315	0.00357	12.5%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.62	5.71	14.8%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	53.2	47.7	10.8%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.362	0.339	6.66%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	124	108	13.4%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000030	0.000029	0.000001	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.0115	0.0111	3.04%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00465	0.00442	0.00023	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1052995)											
WP2316040-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1048264)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1048266)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1048322)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1048323)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1048498)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1048506)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1051528)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1048225)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1048226)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1048227)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1048228)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1048635)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1055623)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1055628)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1053055)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1053056)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1053057)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1053057) - continued						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1048190)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1052448)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1052448) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1052451)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1052453)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1052461)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1052461) - continued						
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1052462)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1052463)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1052993)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1052994)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1049395)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1049395) - continued						
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	# 0.056	B
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1049396)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1049397)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1052995)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1048264)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.2	85.0	115	----
Physical Tests (QCLot: 1048265)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1048266)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1048321)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1048322)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1048323)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.7	85.0	115	----
Physical Tests (QCLot: 1048498)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1048506)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	90.5	85.0	115	----
Physical Tests (QCLot: 1051528)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1048225)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1048226)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1048227)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1048228)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1048635)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1055623)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.4	80.0	120	----
Anions and Nutrients (QCLot: 1055628)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1053055)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	91.2	80.0	120	----
Cyanides (QCLot: 1053056)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	92.5	80.0	120	----
Cyanides (QCLot: 1053057)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	92.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1048190)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	108	80.0	120	----
Total Metals (QCLot: 1052448)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	96.9	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	# 127	80.0	120	MES
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	87.9	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	110	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	97.2	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.8	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	105	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	97.4	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	99.7	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.0	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	98.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	96.6	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	113	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1052448) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	99.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	116	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.9	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	109	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.1	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.9	80.0	120	----
Total Metals (QCLot: 1052451)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	99.7	80.0	120	----
Total Metals (QCLot: 1052453)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Total Metals (QCLot: 1052461)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	110	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.7	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	105	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	108	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	107	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.9	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	94.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	109	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1052461) - continued									
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	117	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.5	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.5	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.7	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	98.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	106	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.9	80.0	120	----
Total Metals (QCLot: 1052462)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Total Metals (QCLot: 1052463)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	117	80.0	120	----
Total Metals (QCLot: 1052993)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	105	80.0	120	----
Total Metals (QCLot: 1052994)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	103	80.0	120	----
Dissolved Metals (QCLot: 1049395)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	109	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	116	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1049395) - continued									
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	105	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	108	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.1	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.8	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	107	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	109	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	105	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.2	80.0	120	----
Dissolved Metals (QCLot: 1049396)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1048225)										
WP2316178-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1048226)										
WP2316178-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.61 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1048227)										
WP2316178-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.508 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1048228)										
WP2316178-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1048635)										
WP2316195-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.223 mg/L	0.25 mg/L	89.2	75.0	125	----
Anions and Nutrients (QCLot: 1055623)										
WP2316136-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.226 mg/L	0.25 mg/L	90.2	70.0	130	----
Anions and Nutrients (QCLot: 1055628)										
WP2316171-008	SW-08A	Phosphorus, total	7723-14-0	E372-U	0.238 mg/L	0.25 mg/L	95.4	70.0	130	----
Cyanides (QCLot: 1053055)										
WP2316171-001	SW-15	Cyanide, weak acid dissociable	----	E336-L	0.113 mg/L	0.125 mg/L	90.8	75.0	125	----
Cyanides (QCLot: 1053056)										
WP2316171-001	SW-15	Cyanide, free	----	E339-L	0.112 mg/L	0.125 mg/L	90.0	75.0	125	----
Cyanides (QCLot: 1053057)										
WP2316171-001	SW-15	Cyanide, strong acid dissociable (Total)	----	E333-L	0.220 mg/L	0.25 mg/L	88.2	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1048190)										
WP2316142-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.16 mg/L	5 mg/L	103	70.0	130	----
Total Metals (QCLot: 1052448)										
WP2316136-001	Anonymous	Antimony, total	7440-36-0	E420	0.0227 mg/L	0.02 mg/L	113	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0466 mg/L	0.04 mg/L	116	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Boron, total	7440-42-8	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1052448) - continued										
WP2316136-001	Anonymous	Cadmium, total	7440-43-9	E420	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0116 mg/L	0.01 mg/L	116	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, total	7440-50-8	E420	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Iron, total	7439-89-6	E420	2.11 mg/L	2 mg/L	106	70.0	130	----
		Lead, total	7439-92-1	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Lithium, total	7439-93-2	E420	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0395 mg/L	0.04 mg/L	98.7	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.2 mg/L	10 mg/L	102	70.0	130	----
		Potassium, total	7440-09-7	E420	4.05 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	10.3 mg/L	10 mg/L	103	70.0	130	----
		Silver, total	7440-22-4	E420	0.00425 mg/L	0.004 mg/L	106	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0439 mg/L	0.04 mg/L	110	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Tin, total	7440-31-5	E420	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, total	7440-66-6	E420	0.401 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0453 mg/L	0.04 mg/L	113	70.0	130	----
Total Metals (QCLot: 1052993)										
WP2316136-002	Anonymous	Mercury, total	7439-97-6	E508	0.000102 mg/L	0.0001 mg/L	102	70.0	130	----
Total Metals (QCLot: 1052994)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1052994) - continued										
WP2316171-005	SW-01	Mercury, total	7439-97-6	E508	0.0000938 mg/L	0.0001 mg/L	93.8	70.0	130	----
Dissolved Metals (QCLot: 1049395)										
WP2316126-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.210 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0454 mg/L	0.04 mg/L	114	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00918 mg/L	0.01 mg/L	91.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00983 mg/L	0.01 mg/L	98.3	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.02 mg/L	2 mg/L	101	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0188 mg/L	0.02 mg/L	94.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0395 mg/L	0.04 mg/L	98.7	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.8 mg/L	10 mg/L	118	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0488 mg/L	0.04 mg/L	122	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00322 mg/L	0.004 mg/L	80.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0390 mg/L	0.04 mg/L	97.4	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00380 mg/L	0.004 mg/L	95.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1049395) - continued										
WP2316126-001	Anonymous	Titanium, dissolved	7440-32-6	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.409 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1052995)										
WP2316171-001	SW-15	Mercury, dissolved	7439-97-6	E509	0.0000839 mg/L	0.0001 mg/L	83.9	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:**	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
1	SW-15	16/07/23	8:10	Water	9	X			7.76	18.1	137.6
2	CR-REF	16/07/23	9:00	Water	9	X			7.6	18.9	67.9
3	SW-TR	16/07/23	9:45	Water	9	X			5.05	16.4	22
4	FIELD BLANK-01	16/07/23	9:45	Water	9	X					
5	SW-01	16/07/23	10:50	Water	9	X			6.29	18.1	39.8
6	DUP-01	16/07/23	10:50	Water	9	X			6.29	18.1	39.8
7	SW-11	16/07/23	12:30	Water	9	X			6.99	15	182.2
8	SW-08A	16/07/23	13:00	Water	9	X			7.47	16.1	169.8
9	SW-08	16/07/23	14:50	Water	9	X			7.49	15.9	172.9
10	TRAVEL BLANK-01	16/07/23	N/A	Water	9	X					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
	July 17 2023	7:00		JUL 20 2023	915		

Environmental Division
Winnipeg
Work Order Reference
WP2316171

Telephone : +1 204 255 9720

18.3°

* SW-11 Bissolved samples are not preserved or filtered. please filter and analyze at lab.

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ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2316174**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Date Analysis Commenced	: 20-Jul-2023
C-O-C number	: ----	Issue Date	: 27-Jul-2023 08:37
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Wayne Smith	Client Services Specialist	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Sample Comments

Sample	Client Id	*Comment*
WP2316174-001	SW-04	Sample(s) 1 Hg-D: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-03	SW-GL	SW-GL-B	----
					Client sampling date / time	17-Jul-2023 09:10	17-Jul-2023 10:00	17-Jul-2023 14:30	17-Jul-2023 15:00	----
						WP2316174-001	WP2316174-002	WP2316174-003	WP2316174-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.45	8.12	8.00	7.84	----
Temperature, field	----	EF001/WP	0.10	°C		16.4	11.8	18.5	18.5	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.8	<2.0	<2.0	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		99.8	139	31.7	31.9	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		99.8	139	31.7	31.9	----
Conductivity	----	E100/WP	1.0	µS/cm		187	257	68.4	68.6	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		95.0	136	31.6	34.5	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		100	141	34.3	35.0	----
pH	----	E108/WP	0.10	pH units		7.62	8.14	7.71	7.68	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		137	159	59.3	56.6	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		11.6	218	2.9	2.4	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	0.019	0.021	0.012	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.99	0.80	0.19	0.19	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0725	<0.0050	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0745	<0.0051	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0020	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0678	0.0286	0.0102	0.0116	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.13	3.02	0.71	0.71	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0020	<0.0010	<0.0010	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0014	0.0014	0.0016	0.0018	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0018	0.0013	0.0015	0.0020	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-03	SW-GL	SW-GL-B	----
					Client sampling date / time	17-Jul-2023 09:10	17-Jul-2023 10:00	17-Jul-2023 14:30	17-Jul-2023 15:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2316174-001	WP2316174-002	WP2316174-003	WP2316174-004	--------
						Result	Result	Result	Result	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		18.8	5.20	10.5	10.6	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.773	0.204	0.0095	0.0191	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00018	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00355	0.00205	0.00174	0.00192	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0726	0.0170	0.00665	0.00707	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000027	<0.000020	<0.000020	<0.000020	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000130	<0.0000050	<0.0000050	<0.0000050	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		28.4	41.6	9.44	9.70	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000062	0.000020	<0.000010	<0.000010	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00166	0.00048	<0.00010	<0.00010	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00166	<0.00050	<0.00050	<0.00050	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00051	0.00016	<0.00010	<0.00010	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00201	0.00065	<0.00050	<0.00050	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		1.43	0.320	0.057	0.088	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000393	0.000085	<0.000050	0.000127	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0046	0.0071	0.0016	0.0016	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		7.20	9.10	2.60	2.61	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.163	0.0556	0.0113	0.0144	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000520	0.000778	0.000112	0.000162	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00153	0.00061	<0.00050	<0.00050	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.072	0.035	<0.030	<0.030	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.072	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.94	2.03	0.750	0.747	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00317	0.00111	0.00178	0.00180	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000092	0.000102	0.000076	0.000078	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		5.05	6.84	1.18	1.20	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000096	<0.000010	<0.000010	<0.000010	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-03	SW-GL	SW-GL-B	----
					Client sampling date / time	17-Jul-2023 09:10	17-Jul-2023 10:00	17-Jul-2023 14:30	17-Jul-2023 15:00	----
						WP2316174-001	WP2316174-002	WP2316174-003	WP2316174-004	--------
						Result	Result	Result	Result	----
Total Metals										
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.54	3.11	1.33	1.30	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0513	0.0533	0.0206	0.0204	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.56	1.25	<0.50	<0.50	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000011	<0.000010	<0.000010	<0.000010	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00014	<0.00010	<0.00010	<0.00010	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0301	0.00960	<0.00030	0.00056	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00085	<0.00010	<0.00010	<0.00010	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000517	0.00131	0.000037	0.000036	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00278	0.00152	<0.00050	<0.00050	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00043	0.00020	<0.00020	<0.00020	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0872	0.0130	0.0039	0.0025	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00297	0.00196	0.00168	0.00164	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0616	0.0149	0.00623	0.00645	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		26.9	40.1	8.83	9.89	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00041	0.00012	<0.00010	<0.00010	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00134	0.00045	<0.00020	0.00020	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.455	0.070	0.012	0.014	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000150	<0.000050	<0.000050	<0.000050	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0029	0.0053	0.0011	0.0011	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-03	SW-GL	SW-GL-B	----
					Client sampling date / time	17-Jul-2023 09:10	17-Jul-2023 10:00	17-Jul-2023 14:30	17-Jul-2023 15:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2316174-001	WP2316174-002	WP2316174-003	WP2316174-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		6.77	8.66	2.33	2.38	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00246	0.0403	0.00057	0.00053	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000518	0.000803	0.000100	0.000103	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00083	<0.00050	<0.00050	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.66	1.89	0.692	0.712	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00225	0.00071	0.00169	0.00177	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000081	0.000108	<0.000050	0.000068	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.74	6.21	1.08	1.14	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.000017	<0.000010	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		3.28	2.78	1.18	1.18	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0514	0.0550	0.0222	0.0214	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.52	1.19	<0.50	<0.50	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00479	0.00077	<0.00030	<0.00030	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00073	<0.00010	<0.00010	<0.00010	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000543	0.00139	0.000038	0.000039	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00108	0.00099	<0.00050	<0.00050	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00038	<0.00030	<0.00030	<0.00030	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Laboratory	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-		Laboratory	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2316174**	Page	: 1 of 22
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Issue Date	: 27-Jul-2023 08:37
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1049395 001	----	Silicon, dissolved	7440-21-3	E421	0.056 B mg/L	0.05 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-03	E303	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-04	E303	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-GL	E303	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-GL-B	E303	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.Cl-L	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.Cl-L	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.Cl-L	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO3-L	17-Jul-2023	20-Jul-2023	7 days	3 days	✓	20-Jul-2023	4 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO3-L	17-Jul-2023	20-Jul-2023	7 days	3 days	✓	20-Jul-2023	4 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO3-L	17-Jul-2023	20-Jul-2023	7 days	3 days	✓	20-Jul-2023	4 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO3-L	17-Jul-2023	20-Jul-2023	7 days	3 days	✓	20-Jul-2023	4 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO2-L	17-Jul-2023	20-Jul-2023	7 days	3 days	✓	20-Jul-2023	4 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO2-L	17-Jul-2023	20-Jul-2023	7 days	3 days	✓	20-Jul-2023	4 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	17-Jul-2023	20-Jul-2023	7 days	3 days	✓	20-Jul-2023	4 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	17-Jul-2023	20-Jul-2023	7 days	3 days	✓	20-Jul-2023	4 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-03	E235.SO4	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-04	E235.SO4	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL	E235.SO4	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL-B	E235.SO4	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-03	E372-U	17-Jul-2023	25-Jul-2023	28 days	8 days	✓	26-Jul-2023	20 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-04	E372-U	17-Jul-2023	25-Jul-2023	28 days	8 days	✓	26-Jul-2023	20 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL	E372-U	17-Jul-2023	25-Jul-2023	28 days	8 days	✓	26-Jul-2023	20 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL-B	E372-U	17-Jul-2023	25-Jul-2023	28 days	8 days	✓	26-Jul-2023	20 days	1 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	17-Jul-2023	24-Jul-2023	14 days	7 days	✓	24-Jul-2023	7 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE - dissolved (lab filtered)										
SW-04	E421.Cr-L	17-Jul-2023	21-Jul-2023	0.89 hrs	9 hrs	× EHTR-FM	21-Jul-2023	-85.69 hrs	0.89 hrs	× UCP
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.Cr-L	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab filtered)										
SW-04	E509	17-Jul-2023	24-Jul-2023	0.05 hrs	0 hrs	× EHTR-FM	24-Jul-2023	-171.23 hrs	0.05 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-03	E509	17-Jul-2023	24-Jul-2023	28 days	7 days	✓	24-Jul-2023	21 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	17-Jul-2023	24-Jul-2023	28 days	7 days	✓	24-Jul-2023	21 days	0 days	✓

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	17-Jul-2023	24-Jul-2023	28 days	7 days	✓	24-Jul-2023	21 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE - dissolved (lab filtered) SW-04	E421	17-Jul-2023	21-Jul-2023	0.89 hrs	9 hrs	✗ EHTR-FM	21-Jul-2023	-85.69 hrs	0.89 hrs	✗ UCP
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE - dissolved (lab filtered) SW-04	E421.P-L	17-Jul-2023	21-Jul-2023	0.89 hrs	9 hrs	✗ EHTR-FM	21-Jul-2023	-85.69 hrs	0.89 hrs	✗ UCP
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	17-Jul-2023	21-Jul-2023	180 days	4 days	✓	21-Jul-2023	176 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-03	EF001	17-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	17-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	17-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL-B	EF001	17-Jul-2023	----	----	----		20-Jul-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-03	E358-L	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL-B	E358-L	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (lab preserved)										
SW-04	E358-L	17-Jul-2023	20-Jul-2023	3 days	3 days	✓	20-Jul-2023	28 days	0 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-03	E283	17-Jul-2023	22-Jul-2023	14 days	5 days	✓	25-Jul-2023	9 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-04	E283	17-Jul-2023	22-Jul-2023	14 days	5 days	✓	25-Jul-2023	9 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	17-Jul-2023	22-Jul-2023	14 days	5 days	✓	25-Jul-2023	9 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	17-Jul-2023	22-Jul-2023	14 days	5 days	✓	25-Jul-2023	9 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-03	E290	17-Jul-2023	20-Jul-2023	14 days	3 days	✓	20-Jul-2023	11 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	17-Jul-2023	20-Jul-2023	14 days	3 days	✓	20-Jul-2023	11 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	17-Jul-2023	20-Jul-2023	14 days	3 days	✓	20-Jul-2023	11 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	17-Jul-2023	20-Jul-2023	14 days	3 days	✓	20-Jul-2023	11 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	17-Jul-2023	20-Jul-2023	28 days	3 days	✓	20-Jul-2023	25 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	17-Jul-2023	20-Jul-2023	14 days	3 days	✓	20-Jul-2023	11 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	17-Jul-2023	20-Jul-2023	14 days	3 days	✓	20-Jul-2023	11 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	17-Jul-2023	20-Jul-2023	14 days	3 days	✓	20-Jul-2023	11 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	17-Jul-2023	20-Jul-2023	14 days	3 days	✓	20-Jul-2023	11 days	0 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	17-Jul-2023	----	----	----		21-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	17-Jul-2023	----	----	----		21-Jul-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	17-Jul-2023	----	----	----		21-Jul-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	17-Jul-2023	----	----	----		21-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	17-Jul-2023	----	----	----		21-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	17-Jul-2023	----	----	----		21-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	17-Jul-2023	----	----	----		21-Jul-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	17-Jul-2023	----	----	----		21-Jul-2023	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	17-Jul-2023	24-Jul-2023	28 days	7 days	✓	24-Jul-2023	21 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	17-Jul-2023	24-Jul-2023	28 days	7 days	✓	24-Jul-2023	21 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	17-Jul-2023	24-Jul-2023	28 days	7 days	✓	24-Jul-2023	21 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	17-Jul-2023	24-Jul-2023	28 days	7 days	✓	24-Jul-2023	21 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-04	E420.P-L	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL	E420.P-L	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL-B	E420.P-L	17-Jul-2023	24-Jul-2023	180 days	7 days	✓	24-Jul-2023	173 days	0 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1051528	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1048254	1	19	5.2	5.0	✓
Ammonia in Water by Colour	E303	1048346	1	18	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048253	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	0	15	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	0	15	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1053062	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
pH by Meter	E108	1048252	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048506	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052462	0	13	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1053058	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1052994	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052461	0	20	0.0	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055628	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052463	0	16	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1048498	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1053061	1	9	11.1	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1051528	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1048254	1	19	5.2	5.0	✓
Ammonia in Water by Colour	E303	1048346	1	18	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048253	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	1	15	6.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1053062	1	9	11.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
pH by Meter	E108	1048252	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048506	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052462	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1053058	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1052994	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052461	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055628	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052463	1	16	6.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1048498	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1053061	1	9	11.1	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1051528	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1048254	1	19	5.2	5.0	✓
Ammonia in Water by Colour	E303	1048346	1	18	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048253	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	1	15	6.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1053062	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048506	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052462	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1053058	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1052994	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052461	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055628	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052463	1	16	6.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1048498	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1053061	1	9	11.1	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1048346	1	18	5.5	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	0	15	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	0	15	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1053062	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052462	0	13	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1053058	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1052994	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052461	0	20	0.0	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055628	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052463	0	16	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1053061	1	9	11.1	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2316174**	Page	: 1 of 16
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Date Analysis Commenced	: 20-Jul-2023
C-O-C number	: ----	Issue Date	: 27-Jul-2023 08:37
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Wayne Smith	Client Services Specialist	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1048252)											
WP2316136-001	Anonymous	pH	----	E108	0.10	pH units	8.11	8.15	0.492%	4%	----
Physical Tests (QC Lot: 1048253)											
WP2316136-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	171	171	0.234%	10%	----
Physical Tests (QC Lot: 1048254)											
WP2316136-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	43.4	44.2	1.83%	20%	----
Physical Tests (QC Lot: 1048498)											
WP2316126-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.7	mg/L	73.8	86.7	16.1%	20%	----
Physical Tests (QC Lot: 1048506)											
WP2316126-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	553	586	5.79%	20%	----
Physical Tests (QC Lot: 1051528)											
BF2300146-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048225)											
WP2316178-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.48	4.48	0.120%	20%	----
Anions and Nutrients (QC Lot: 1048226)											
WP2316178-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048227)											
WP2316178-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048228)											
WP2316178-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.39	2.39	0.0736%	20%	----
Anions and Nutrients (QC Lot: 1048346)											
WP2316152-002	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.090	0.085	0.005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1055628)											
WP2316171-007	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.21	1.19	1.15%	20%	----
Cyanides (QC Lot: 1053058)											
CG2309897-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0082	0.0085	0.0003	Diff <2x LOR	----
Cyanides (QC Lot: 1053061)											
WP2316174-001	SW-04	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0018	<0.0010	0.0008	Diff <2x LOR	----
Cyanides (QC Lot: 1053062)											
WP2316174-001	SW-04	Cyanide, free	----	E339-L	0.0010	mg/L	0.0020	0.0014	0.0006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1048190)											
WP2316142-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	3.18	3.02	0.17	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1050284)											
WP2316318-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	0.60	0.59	0.008	Diff <2x LOR	----
Total Metals (QC Lot: 1052994)											
WP2316171-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1049395)											
WP2316126-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0014	0.0014	0.00004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00057	0.00056	0.000004	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00677	0.00671	1.02%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0221	0.0213	3.53%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.125	0.134	7.65%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000054	<0.0000050	0.0000004	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	72.5	77.1	6.14%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000012	0.000011	0.0000008	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00031	0.00030	0.000005	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00183	0.00174	0.00009	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0637	0.0635	0.398%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	51.2	43.6	15.9%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00109	0.00105	4.04%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00650	0.00618	4.94%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00513	0.00494	3.73%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	9.08	8.42	7.50%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00285	0.00269	5.73%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00315	0.00357	12.5%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.62	5.71	14.8%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	53.2	47.7	10.8%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.362	0.339	6.66%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1049395) - continued											
WP2316126-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	124	108	13.4%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000030	0.000029	0.000001	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.0115	0.0111	3.04%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00465	0.00442	0.00023	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1052995)											
WP2316040-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1048253)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1048254)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1048498)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1048506)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1051528)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1048225)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1048226)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1048227)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1048228)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1048346)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1055628)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1053058)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1053061)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1053062)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1048190)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1050284)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1052461)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1052461) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1052461) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1052462)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1052463)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1052994)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1049395)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1049395) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	# 0.056	B
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1049396)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1049397)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1052995)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1048252)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1048253)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1048254)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.1	85.0	115	----
Physical Tests (QCLot: 1048498)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1048506)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	90.5	85.0	115	----
Physical Tests (QCLot: 1051528)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1048225)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1048226)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1048227)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1048228)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1048346)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 1055628)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.4	80.0	120	----
Cyanides (QCLot: 1053058)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	90.4	80.0	120	----
Cyanides (QCLot: 1053061)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	83.0	80.0	120	----
Cyanides (QCLot: 1053062)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	80.3	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Organic / Inorganic Carbon (QCLot: 1048190)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	108	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1050284)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	104	80.0	120	----
Total Metals (QCLot: 1052461)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	110	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.7	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	105	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	108	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	107	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.9	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	94.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	109	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	117	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.5	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.5	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1052461) - continued									
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.7	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	98.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	106	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.9	80.0	120	----
Total Metals (QCLot: 1052462)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Total Metals (QCLot: 1052463)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	117	80.0	120	----
Total Metals (QCLot: 1052994)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	103	80.0	120	----
Dissolved Metals (QCLot: 1049395)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	109	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	116	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	105	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	108	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.1	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.8	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1049395) - continued									
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	107	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	109	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	105	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.2	80.0	120	----
Dissolved Metals (QCLot: 1049396)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1048225)										
WP2316178-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1048226)										
WP2316178-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.61 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1048227)										
WP2316178-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.508 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1048228)										
WP2316178-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1048346)										
WP2316152-002	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.218 mg/L	0.25 mg/L	87.4	75.0	125	----
Anions and Nutrients (QCLot: 1055628)										
WP2316171-008	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.238 mg/L	0.25 mg/L	95.4	70.0	130	----
Cyanides (QCLot: 1053058)										
CG2309897-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.197 mg/L	0.25 mg/L	78.6	75.0	125	----
Cyanides (QCLot: 1053061)										
WP2316174-001	SW-04	Cyanide, weak acid dissociable	----	E336-L	0.112 mg/L	0.125 mg/L	89.5	75.0	125	----
Cyanides (QCLot: 1053062)										
WP2316174-001	SW-04	Cyanide, free	----	E339-L	0.114 mg/L	0.125 mg/L	91.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1048190)										
WP2316142-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.16 mg/L	5 mg/L	103	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1050284)										
WP2316318-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L		----		70.0	130	----
Total Metals (QCLot: 1052994)										
WP2316171-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000938 mg/L	0.0001 mg/L	93.8	70.0	130	----
Dissolved Metals (QCLot: 1049395)										
WP2316126-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.210 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1049395) - continued										
WP2316126-001	Anonymous	Beryllium, dissolved	7440-41-7	E421	0.0454 mg/L	0.04 mg/L	114	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00918 mg/L	0.01 mg/L	91.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00983 mg/L	0.01 mg/L	98.3	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.02 mg/L	2 mg/L	101	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0188 mg/L	0.02 mg/L	94.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0395 mg/L	0.04 mg/L	98.7	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.8 mg/L	10 mg/L	118	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0488 mg/L	0.04 mg/L	122	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00322 mg/L	0.004 mg/L	80.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0390 mg/L	0.04 mg/L	97.4	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00380 mg/L	0.004 mg/L	95.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.409 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0414 mg/L	0.04 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1052995)										
WP2316171-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000839 mg/L	0.0001 mg/L	83.9	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2316174

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) R
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐N/A	☐4 day [P4] if received by 3pm M-F - 20% rush surcharge
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐3 day [P3] if received by 3pm M-F - 25% rush surcharge
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐2 day [P2] if received by 3pm M-F - 50% rush surcharge
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐1 day [E] if received by 3pm M-F - 100% rush surcharge
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐Same day [E2] if received by 10am M-S - 200% rush surch
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests holidays and for non-routine
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	
Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
2	SW-04	17-Jul-23	9:10	Water	9	X			7.45	16.4	150.1
3	SW-03	17-Jul-23	10:00	Water	9	X			8.12	11.8	185.1
4	SW-GL	17-Jul-23	14:30	Water	9	X			8	18.5	57.1
	SW-GL-B	17-Jul-23	15:00	Water	9	X			7.84	18.5	57.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
E Meek				JUL 20 2023	915		

18.5°

★ please filter SW-04 dissolved bottles before analysis. They are unfiltered and unpreserved ★

16174

Environmental Division Winnipeg
Work Order Reference
WP2316174

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) R
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐N/A	☐4 day [P4] if received by 3pm M-F - 20% rush surcharge
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐3 day [P3] if received by 3pm M-F - 25% rush surcharge
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐2 day [P2] if received by 3pm M-F - 50% rush surcharge
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐1 day [E] if received by 3pm M-F - 100% rush surcharge
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐Same day [E2] if received by 10am M-S - 200% rush surch
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests holidays and for non-routine
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	
Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
1	SW-04	17-Jul-23	9:10	Water	9	X			7.45	16.4	150.1
2	SW-03	17-Jul-23	10:00	Water	9	X			8.12	11.8	185.1
3	SW-GL	17-Jul-23	14:30	Water	9	X			8	18.5	57.1
4	SW-GL-B	17-Jul-23	15:00	Water	9	X			7.84	18.5	57.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
E Meek				JUL 20 2023	915		

18:30

★ please filter SW-04 dissolved bottles before analysis. They are unfiltered and unpreserved ★

16174

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2316178**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Date Analysis Commenced	: 20-Jul-2023
C-O-C number	: ----	Issue Date	: 27-Jul-2023 11:42
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Wayne Smith	Client Services Specialist	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-DS	DUP-02	CR-FDP	SW-09	FIELD-02
					Client sampling date / time	18-Jul-2023 09:45	18-Jul-2023 09:45	18-Jul-2023 10:30	18-Jul-2023 12:00	18-Jul-2023 12:30
						WP2316178-001	WP2316178-002	WP2316178-003	WP2316178-004	WP2316178-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.75	7.75	7.61	7.73	----
Temperature, field	----	EF001/WP	0.10	°C		19.0	19.0	19.1	18.0	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		36.0	35.8	33.9	93.0	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		36.0	35.8	33.9	93.0	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		92.4	92.4	89.1	183	<1.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		43.2	41.1	33.1	97.3	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		45.0	44.8	42.6	102	<0.50
pH	----	E108/WP	0.10	pH units		7.56	7.58	7.63	7.95	5.42
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		77.6	72.3	69.3	131	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.8	3.9	4.3	4.1	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.018	0.011	<0.010	0.013	0.026
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.39	2.33	2.39	0.90	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	0.0053
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	<0.0051	0.0053
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0365	0.0315	0.0303	0.0333	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		4.48	4.49	4.62	1.72	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0015	<0.0010	<0.0010	0.0014	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0024	0.0018	0.0017	0.0022	0.0013
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0024	0.0018	0.0018	0.0022	0.0015

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-DS	DUP-02	CR-FDP	SW-09	FIELD-02
					Client sampling date / time	18-Jul-2023 09:45	18-Jul-2023 09:45	18-Jul-2023 10:30	18-Jul-2023 12:00	18-Jul-2023 12:30
						WP2316178-001	WP2316178-002	WP2316178-003	WP2316178-004	WP2316178-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.8	12.9	12.8	25.9	<0.50
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.184	0.183	0.197	0.219	0.0034
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00029	0.00029	0.00030	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0118	0.0115	0.0104	0.00339	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00999	0.0101	0.00989	0.0181	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000052	0.0000064	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.4	12.2	11.8	27.1	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000017	0.000016	0.000018	0.000017	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00036	0.00036	0.00042	0.00054	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00054	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00011	0.00010	0.00012	0.00025	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00158	0.00156	0.00154	0.00128	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.179	0.171	0.180	0.565	<0.010
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000089	0.000087	0.000091	0.000203	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0023	0.0026	0.0022	0.0043	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.40	3.49	3.20	8.31	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0120	0.0122	0.0114	0.126	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000314	0.000280	0.000281	0.000731	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00134	0.00139	0.00138	0.00102	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.040	0.038	<0.030	0.033	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.11	1.12	1.12	1.54	<0.050
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00204	0.00210	0.00211	0.00200	<0.00020
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000102	0.000091	0.000105	0.000117	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.09	2.16	2.04	3.02	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-DS	DUP-02	CR-FDP	SW-09	FIELD-02
					Client sampling date / time	18-Jul-2023 09:45	18-Jul-2023 09:45	18-Jul-2023 10:30	18-Jul-2023 12:00	18-Jul-2023 12:30
						WP2316178-001	WP2316178-002	WP2316178-003	WP2316178-004	WP2316178-005
						Result	Result	Result	Result	Result
Total Metals										
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.65	2.57	2.57	3.52	<0.050
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0311	0.0300	0.0292	0.0536	<0.00020
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.92	1.79	1.87	1.00	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00683	0.00643	0.00788	0.00868	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00011	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000131	0.000128	0.000132	0.000411	<0.000010
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00106	0.00103	0.00102	0.00167	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00021	0.00030	<0.00020	0.00037	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0397	0.0409	0.0277	0.0690	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00029	0.00027	0.00027	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.0113	0.0107	0.00930	0.00314	<0.00010
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00892	0.00896	0.00795	0.0152	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.0	11.9	8.55	25.7	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00014	0.00014	0.00012	0.00030	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00015	<0.00010
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00140	0.00122	0.00125	0.00112	<0.00020
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.046	0.051	0.031	0.349	<0.010
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000167	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0017	0.0010	0.0036	<0.0010

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-DS	DUP-02	CR-FDP	SW-09	FIELD-02
					Client sampling date / time	18-Jul-2023 09:45	18-Jul-2023 09:45	18-Jul-2023 10:30	18-Jul-2023 12:00	18-Jul-2023 12:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2316178-001	WP2316178-002	WP2316178-003	WP2316178-004	WP2316178-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.22	2.77	2.85	8.04	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00104	0.00106	0.00070	0.0602	<0.00010
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000290	0.000251	0.000205	0.000763	<0.000050
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00116	0.00104	0.00107	0.00091	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.03	0.964	0.985	1.45	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00189	0.00190	0.00178	0.00191	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000116	0.000093	0.000103	0.000141	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.69	1.50	1.53	2.56	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.39	2.16	2.24	3.29	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0313	0.0299	0.0250	0.0596	<0.00020
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.74	1.61	1.69	0.94	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00109	0.00121	0.00078	0.00345	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00013	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000135	0.000124	0.000108	0.000462	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00058	0.00057	0.00052	0.00115	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0027	0.0018
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00048	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2316178**	Page	: 1 of 25
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Issue Date	: 27-Jul-2023 11:44
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1049395 001	----	Silicon, dissolved	7440-21-3	E421	0.056 B mg/L	0.05 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-DS	E303	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-FDP	E303	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-02	E303	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) FIELD-02	E303	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-09	E303	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.Cl-L	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.Cl-L	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.Cl-L	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.Cl-L	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO3-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO3-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.NO3-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO3-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO2-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO2-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.NO2-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO2-L	18-Jul-2023	20-Jul-2023	7 days	2 days	✓	20-Jul-2023	5 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP-02	E235.SO4	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] FIELD-02	E235.SO4	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-09	E235.SO4	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	18-Jul-2023	25-Jul-2023	28 days	7 days	✓	26-Jul-2023	21 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	18-Jul-2023	25-Jul-2023	28 days	7 days	✓	26-Jul-2023	21 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-02	E372-U	18-Jul-2023	25-Jul-2023	28 days	7 days	✓	26-Jul-2023	21 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) FIELD-02	E372-U	18-Jul-2023	25-Jul-2023	28 days	7 days	✓	26-Jul-2023	21 days	1 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	18-Jul-2023	25-Jul-2023	28 days	7 days	✓	26-Jul-2023	21 days	1 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E339-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E339-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-02	E339-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) FIELD-02	E339-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E333-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-02	E333-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E336-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-02	E336-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	18-Jul-2023	24-Jul-2023	14 days	6 days	✓	24-Jul-2023	8 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.Cr-L	18-Jul-2023	21-Jul-2023	180 days	3 days	✓	21-Jul-2023	177 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
FIELD-02	E421.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-DS	E509	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-FDP	E509	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DUP-02	E509	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
FIELD-02	E509	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-09	E509	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-DS	E421	18-Jul-2023	21-Jul-2023	180 days	3 days	✓	21-Jul-2023	177 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-FDP	E421	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP-02	E421	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
FIELD-02	E421	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-09	E421	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.P-L	18-Jul-2023	21-Jul-2023	180 days	3 days	✓	21-Jul-2023	177 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-02	E421.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) FIELD-02	E421.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-09	E421.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-DS	EF001	18-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-FDP	EF001	18-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DUP-02	EF001	18-Jul-2023	----	----	----		20-Jul-2023	----	----	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-09	EF001	18-Jul-2023	----	----	----		20-Jul-2023	----	----	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-DS	E358-L	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-FDP	E358-L	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DUP-02	E358-L	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) FIELD-02	E358-L	18-Jul-2023	21-Jul-2023	28 days	3 days	✓	21-Jul-2023	25 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-09	E358-L	18-Jul-2023	21-Jul-2023	28 days	3 days	✓	21-Jul-2023	25 days	0 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-DS	E283	18-Jul-2023	22-Jul-2023	14 days	4 days	✓	25-Jul-2023	10 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	18-Jul-2023	25-Jul-2023	14 days	7 days	✓	26-Jul-2023	7 days	1 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP-02	E283	18-Jul-2023	25-Jul-2023	14 days	7 days	✓	26-Jul-2023	7 days	1 days	✓
Physical Tests : Acidity by Titration										
HDPE FIELD-02	E283	18-Jul-2023	25-Jul-2023	14 days	7 days	✓	26-Jul-2023	7 days	1 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-09	E283	18-Jul-2023	25-Jul-2023	14 days	7 days	✓	26-Jul-2023	7 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-02	E290	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] FIELD-02	E290	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-09	E290	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-02	E100	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] FIELD-02	E100	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	18-Jul-2023	20-Jul-2023	28 days	2 days	✓	20-Jul-2023	26 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-02	E108	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] FIELD-02	E108	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	18-Jul-2023	20-Jul-2023	14 days	2 days	✓	20-Jul-2023	12 days	0 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-02	E162-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] FIELD-02	E162-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-02	E160-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] FIELD-02	E160-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	18-Jul-2023	----	----	----		21-Jul-2023	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) FIELD-02	E420.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) FIELD-02	E508	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	18-Jul-2023	24-Jul-2023	28 days	6 days	✓	24-Jul-2023	22 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) FIELD-02	E420	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) FIELD-02	E420.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	18-Jul-2023	24-Jul-2023	180 days	6 days	✓	24-Jul-2023	174 days	0 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1051528	2	26	7.6	5.0	✓
Alkalinity Species by Titration	E290	1048254	2	33	6.0	5.0	✓
Ammonia in Water by Colour	E303	1048342	3	54	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048253	2	30	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1053062	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
pH by Meter	E108	1048252	2	39	5.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048507	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052462	0	13	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1053058	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1052994	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052461	0	20	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055628	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052463	0	16	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1048498	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1053061	1	9	11.1	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1051528	2	26	7.6	5.0	✓
Alkalinity Species by Titration	E290	1048254	2	33	6.0	5.0	✓
Ammonia in Water by Colour	E303	1048342	3	54	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048253	2	30	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	2	19	10.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	2	19	10.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1053062	1	9	11.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
pH by Meter	E108	1048252	2	39	5.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048507	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052462	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1053058	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1052994	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052461	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055628	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052463	1	16	6.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1048498	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1053061	1	9	11.1	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1051528	2	26	7.6	5.0	✓
Alkalinity Species by Titration	E290	1048254	2	33	6.0	5.0	✓
Ammonia in Water by Colour	E303	1048342	3	54	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Conductivity in Water	E100	1048253	2	30	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	2	19	10.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	2	19	10.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1053062	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1048507	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052462	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1053058	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1052994	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052461	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055628	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052463	1	16	6.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1048498	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1053061	1	9	11.1	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1048342	3	54	5.5	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1048228	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1049396	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1052995	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1049395	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1048190	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1049397	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1053062	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1048226	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1048227	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1048225	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1052462	0	13	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1053058	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1052994	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1052461	0	20	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1055628	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1052463	0	16	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1053061	1	9	11.1	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2316178**	Page	: 1 of 23
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jul-2023 09:15
PO	: ----	Date Analysis Commenced	: 20-Jul-2023
C-O-C number	: ----	Issue Date	: 27-Jul-2023 11:45
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Wayne Smith	Client Services Specialist	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1048252)											
WP2316136-001	Anonymous	pH	----	E108	0.10	pH units	8.11	8.15	0.492%	4%	----
Physical Tests (QC Lot: 1048253)											
WP2316136-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	171	171	0.234%	10%	----
Physical Tests (QC Lot: 1048254)											
WP2316136-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	43.4	44.2	1.83%	20%	----
Physical Tests (QC Lot: 1048264)											
WP2316202-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	199	203	1.84%	20%	----
Physical Tests (QC Lot: 1048265)											
WP2316202-001	Anonymous	pH	----	E108	0.10	pH units	7.75	7.78	0.386%	4%	----
Physical Tests (QC Lot: 1048266)											
WP2316171-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	163	164	0.429%	10%	----
Physical Tests (QC Lot: 1048498)											
WP2316126-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.7	mg/L	73.8	86.7	16.1%	20%	----
Physical Tests (QC Lot: 1048507)											
WP2316176-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	438	438	0.00%	20%	----
Physical Tests (QC Lot: 1051528)											
BF2300146-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1055023)											
WP2316178-002	DUP-02	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048225)											
WP2316178-001	CR-DS	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.48	4.48	0.120%	20%	----
Anions and Nutrients (QC Lot: 1048226)											
WP2316178-001	CR-DS	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048227)											
WP2316178-001	CR-DS	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048228)											
WP2316178-001	CR-DS	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.39	2.39	0.0736%	20%	----
Anions and Nutrients (QC Lot: 1048342)											
WP2316178-001	CR-DS	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.018	0.016	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1048371)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1048371) - continued											
WP2316204-004	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1053100)											
WP2316342-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.100	mg/L	0.905	1.05	0.142	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1055628)											
WP2316171-007	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.21	1.19	1.15%	20%	----
Cyanides (QC Lot: 1053058)											
CG2309897-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0082	0.0085	0.0003	Diff <2x LOR	----
Cyanides (QC Lot: 1053061)											
WP2316174-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0018	<0.0010	0.0008	Diff <2x LOR	----
Cyanides (QC Lot: 1053062)											
WP2316174-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	0.0020	0.0014	0.0006	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1048190)											
WP2316142-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	3.18	3.02	0.17	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1049468)											
WP2316136-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.57	8.78	2.36%	20%	----
Total Metals (QC Lot: 1052994)											
WP2316171-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1049395)											
WP2316126-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0014	0.0014	0.00004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00057	0.00056	0.000004	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00677	0.00671	1.02%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0221	0.0213	3.53%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.125	0.134	7.65%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000054	<0.0000050	0.0000004	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	72.5	77.1	6.14%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000012	0.000011	0.0000008	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00031	0.00030	0.000005	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00183	0.00174	0.00009	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1049395) - continued											
WP2316126-001	Anonymous	Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0637	0.0635	0.398%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	51.2	43.6	15.9%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00109	0.00105	4.04%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00650	0.00618	4.94%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00513	0.00494	3.73%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	9.08	8.42	7.50%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00285	0.00269	5.73%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00315	0.00357	12.5%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.62	5.71	14.8%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	53.2	47.7	10.8%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.362	0.339	6.66%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	124	108	13.4%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000030	0.000029	0.000001	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.0115	0.0111	3.04%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00465	0.00442	0.00023	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1052619)											
WP2316178-002	DUP-02	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0409	0.0388	5.18%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00027	0.00027	0.0000002	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.0107	0.0108	0.562%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00896	0.00900	0.415%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	11.9	12.0	0.644%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1052619) - continued											
WP2316178-002	DUP-02	Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00122	0.00124	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.051	0.051	0.0002	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0017	0.0018	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.77	2.76	0.387%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00106	0.00104	1.45%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000251	0.000252	0.000001	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00104	0.00108	0.00004	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.964	0.973	0.955%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00190	0.00180	0.00010	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000093	0.000132	0.000039	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.50	1.50	0.365%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.16	2.20	1.74%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0299	0.0309	3.20%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.61	1.71	0.10	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00121	0.00100	0.00022	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000124	0.000124	0.355%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00057	0.00061	0.00004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1052620)											
WP2316178-002	DUP-02	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00014	0.00017	0.00003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1052621)											
WP2316178-002	DUP-02	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1052995)											
WP2316040-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1048253)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1048254)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1048264)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1048266)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1048498)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1048507)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1051528)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1055023)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1048225)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1048226)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1048227)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1048228)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1048342)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1048371)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1053100)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1055628)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1053058)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1053058) - continued						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1053061)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1053062)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1048190)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1049468)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1052461)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1052461) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1052462)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1052463)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1052994)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1049395)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1049395) - continued						
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	# 0.056	B
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1049396)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1049397)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1052619)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1052619) - continued						
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1052620)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1052620) - continued						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1052621)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1052995)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1048252)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1048253)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1048254)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.1	85.0	115	----
Physical Tests (QCLot: 1048264)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.2	85.0	115	----
Physical Tests (QCLot: 1048265)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1048266)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1048498)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1048507)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	90.2	85.0	115	----
Physical Tests (QCLot: 1051528)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1055023)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1048225)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1048226)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1048227)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1048228)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1048342)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	98.6	85.0	115	----
Anions and Nutrients (QCLot: 1048371)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	100	85.0	115	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1053100)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	99.7	85.0	115	----
Anions and Nutrients (QCLot: 1055628)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.4	80.0	120	----
Cyanides (QCLot: 1053058)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	90.4	80.0	120	----
Cyanides (QCLot: 1053061)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	83.0	80.0	120	----
Cyanides (QCLot: 1053062)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	80.3	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1048190)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	108	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1049468)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	107	80.0	120	----
Total Metals (QCLot: 1052461)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	110	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.7	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	105	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	108	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	107	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.9	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	94.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	109	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1052461) - continued									
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	117	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.5	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.5	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.7	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	98.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	106	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.9	80.0	120	----
Total Metals (QCLot: 1052462)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Total Metals (QCLot: 1052463)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	117	80.0	120	----
Total Metals (QCLot: 1052994)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	103	80.0	120	----
Dissolved Metals (QCLot: 1049395)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	109	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	116	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1049395) - continued									
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	108	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.1	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.8	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	107	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	109	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	105	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.2	80.0	120	----
Dissolved Metals (QCLot: 1049396)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Dissolved Metals (QCLot: 1052619)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	107	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1052619) - continued									
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	95.9	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	110	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	98.6	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	107	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	107	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.3	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	114	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.4	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.1	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	110	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	113	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1052619) - continued									
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	105	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Dissolved Metals (QCLot: 1052620)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	114	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1048225)										
WP2316178-001	CR-DS	Sulfate (as SO4)	14808-79-8	E235.SO4	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1048226)										
WP2316178-001	CR-DS	Nitrate (as N)	14797-55-8	E235.NO3-L	2.61 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1048227)										
WP2316178-001	CR-DS	Nitrite (as N)	14797-65-0	E235.NO2-L	0.508 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1048228)										
WP2316178-001	CR-DS	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1048342)										
WP2316178-001	CR-DS	Ammonia, total (as N)	7664-41-7	E303	0.244 mg/L	0.25 mg/L	97.7	75.0	125	----
Anions and Nutrients (QCLot: 1048371)										
WP2316204-004	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.236 mg/L	0.25 mg/L	94.5	75.0	125	----
Anions and Nutrients (QCLot: 1053100)										
WP2316342-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	ND mg/L	0.25 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 1055628)										
WP2316171-008	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.238 mg/L	0.25 mg/L	95.4	70.0	130	----
Cyanides (QCLot: 1053058)										
CG2309897-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.197 mg/L	0.25 mg/L	78.6	75.0	125	----
Cyanides (QCLot: 1053061)										
WP2316174-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.112 mg/L	0.125 mg/L	89.5	75.0	125	----
Cyanides (QCLot: 1053062)										
WP2316174-001	Anonymous	Cyanide, free	----	E339-L	0.114 mg/L	0.125 mg/L	91.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1048190)										
WP2316142-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.16 mg/L	5 mg/L	103	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1049468)										
WP2316136-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1052994)										
WP2316171-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000938 mg/L	0.0001 mg/L	93.8	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1049395)										
WP2316126-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.210 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0454 mg/L	0.04 mg/L	114	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00918 mg/L	0.01 mg/L	91.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00983 mg/L	0.01 mg/L	98.3	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.02 mg/L	2 mg/L	101	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0188 mg/L	0.02 mg/L	94.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0395 mg/L	0.04 mg/L	98.7	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.8 mg/L	10 mg/L	118	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0488 mg/L	0.04 mg/L	122	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00322 mg/L	0.004 mg/L	80.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0390 mg/L	0.04 mg/L	97.4	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00380 mg/L	0.004 mg/L	95.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1049395) - continued										
WP2316126-001	Anonymous	Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.409 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1052619)										
WP2316178-002	DUP-02	Aluminum, dissolved	7429-90-5	E421	0.182 mg/L	0.2 mg/L	91.0	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0445 mg/L	0.04 mg/L	111	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00959 mg/L	0.01 mg/L	95.9	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00413 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00994 mg/L	0.01 mg/L	99.4	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0187 mg/L	0.02 mg/L	93.7	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.89 mg/L	2 mg/L	94.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0193 mg/L	0.02 mg/L	96.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0191 mg/L	0.02 mg/L	95.7	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0191 mg/L	0.02 mg/L	95.5	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0373 mg/L	0.04 mg/L	93.3	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.72 mg/L	10 mg/L	97.2	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.69 mg/L	4 mg/L	92.2	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.84 mg/L	10 mg/L	88.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.3 mg/L	20 mg/L	96.6	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1052619) - continued										
WP2316178-002	DUP-02	Thallium, dissolved	7440-28-0	E421	0.00389 mg/L	0.004 mg/L	97.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0190 mg/L	0.02 mg/L	94.9	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0372 mg/L	0.04 mg/L	93.1	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00365 mg/L	0.004 mg/L	91.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0960 mg/L	0.1 mg/L	96.0	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.408 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
Dissolved Metals (QCLot: 1052620)										
WP2316178-002	DUP-02	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
Dissolved Metals (QCLot: 1052621)										
WP2316178-002	DUP-02	Phosphorus, dissolved	7723-14-0	E421.P-L	9.72 mg/L	10 mg/L	97.2	70.0	130	----
Dissolved Metals (QCLot: 1052995)										
WP2316171-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000839 mg/L	0.0001 mg/L	83.9	70.0	130	----

Report To		Reports / Recipients		Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)		☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A		☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com		☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com		☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com		Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com		**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com		
Company:		Email 6 emily.meek@kinross.com		**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com		

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
1	CR-DS	18/07/23	9:45	Water	9	X			7.75	19	86.9
2	DUP-02	18/07/23	9:45	Water	9	X			7.75	19	86.9
3	CR-FDP	18/07/23	10:30	Water	9	X			7.61	19.1	89.1
4	SW-09	18/07/23	12:00	Water	9	X			7.73	18	166.6
5	FIELD-02	18/07/23	12:30	Water	9	X					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
Hannah McFee	July 18 2023	15:30		JUL 20 2023	9:15		

18.30

Environmental Division
Winnipeg
Work Order Reference
WP2316178

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
1	CR-DS	18/07/23	9:45	Water	9	X			7.75	19	86.9
2	DUP-02	18/07/23	9:45	Water	9	X			7.75	19	86.9
3	CR-FDP	18/07/23	10:30	Water	9	X			7.61	19.1	89.1
4	SW-09	18/07/23	12:00	Water	9	X			7.73	18	166.6
5	FIELD-02	18/07/23	12:30	Water	9	X					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
Jessica McFee	July 18 2023	15:30		JUL 20 2023	915		

18.30

Environmental Division
Winnipeg
Work Order Reference
WP2316178

Telephone : +1 204 255 9720

ALS Canada Ltd.

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CERTIFICATE OF ANALYSIS

Work Order	: **WP2318603**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Aug-2023 08:49
PO	: ----	Date Analysis Commenced	: 09-Aug-2023
C-O-C number	: ----	Issue Date	: 17-Aug-2023 15:30
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-03	SW-04	BLANK-01	SW-08
					Client sampling date / time	05-Aug-2023 10:25	05-Aug-2023 11:45	05-Aug-2023 12:45	05-Aug-2023 13:45	05-Aug-2023 14:05
						WP2318603-001	WP2318603-002	WP2318603-003	WP2318603-004	WP2318603-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.13	7.98	7.25	----	7.20
Temperature, field	----	EF001/WP	0.10	°C		22.2	14.2	21.2	----	19.1
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		6.6	<2.0	<2.0	<2.0	3.4
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		13.4	135	86.3	<1.0	84.7
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		13.4	135	86.3	<1.0	84.7
Conductivity	----	E100/WP	1.0	µS/cm		44.8	252	169	<1.0	168
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		26.4	129	83.6	<0.50	89.4
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		27.5	131	81.3	<0.50	88.2
pH	----	E108/WP	0.10	pH units		6.40	8.09	7.52	5.37	7.55
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		61.2	156	130	<3.0	119
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		2.4	5.8	8.6	<1.0	5.8
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.012	0.108	0.024	<0.010	0.027
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	0.0026	<0.0010	----	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<0.10	0.80	0.94	<0.10	0.96
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0294	<0.0050	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0306	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0012	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0252	0.0285	0.0500	<0.0020	0.0399
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	3.08	0.71	<0.30	1.11
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0012	<0.0010	0.0012	<0.0010	0.0014
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	SW-03	SW-04	BLANK-01	SW-08
					Client sampling date / time	05-Aug-2023 10:25	05-Aug-2023 11:45	05-Aug-2023 12:45	05-Aug-2023 13:45	05-Aug-2023 14:05
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2318603-001	WP2318603-002	WP2318603-003	WP2318603-004	WP2318603-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0012	<0.0010	0.0012	<0.0010	0.0012
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		35.8	3.91	22.8	<0.50	20.2
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.217	0.152	0.423	<0.0030	0.307
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00012	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00521	0.00188	0.00310	<0.00010	0.00311
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00564	0.0158	0.0276	<0.00010	0.0361
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000116	<0.0000050	0.0000121	<0.0000050	0.0000078
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		7.87	39.6	23.4	<0.050	25.8
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000018	0.000046	<0.000010	0.000021
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00055	0.00069	0.00084	<0.00010	0.00052
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00055	0.00069	0.00084	<0.00050	0.00052
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00020	0.00012	0.00031	<0.00010	0.00021
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00056	0.00062	0.00287	<0.00050	0.00136
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.592	0.222	0.906	<0.010	0.641
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000097	0.000066	0.000281	<0.000050	0.000188
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0060	0.0028	<0.0010	0.0032
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		1.90	7.72	5.56	<0.0050	5.77
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0183	0.0298	0.129	<0.00010	0.123
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000064	0.000770	0.000348	<0.000050	0.000401
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00093	0.00070	0.00130	<0.00050	0.00118
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	0.039	<0.030	0.035
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.208	1.78	1.99	<0.050	1.41
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00098	0.00102	0.00305	<0.00020	0.00286

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-03	SW-04	BLANK-01	SW-08
					Client sampling date / time	05-Aug-2023 10:25	05-Aug-2023 11:45	05-Aug-2023 12:45	05-Aug-2023 13:45	05-Aug-2023 14:05
						WP2318603-001	WP2318603-002	WP2318603-003	WP2318603-004	WP2318603-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000166	0.000094	0.000090	<0.000050	0.000146
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.46	5.87	3.59	<0.10	3.78
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000030	<0.000010	0.000011
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		0.971	2.65	2.39	<0.050	2.57
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0197	0.0496	0.0449	<0.00020	0.0474
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	1.38	<0.50	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00281	0.00672	0.0174	<0.00030	0.00999
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00029	<0.00010	0.00048
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000050	0.00127	0.000288	<0.000010	0.000286
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00051	0.00134	0.00155	<0.00050	0.00122
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00025	<0.00020	0.00034	<0.00020	0.00044
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.219	0.0140	0.0850	<0.0010	0.122
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00012	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00538	0.00204	0.00309	<0.00010	0.00318
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00610	0.0165	0.0298	<0.00010	0.0365
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000154	<0.0000050	0.0000078	<0.0000050	0.0000075
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		7.21	38.6	23.9	<0.050	25.9
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00060	0.00012	0.00034	<0.00010	0.00037
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00060	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00021	<0.00010	0.00019	<0.00010	0.00017

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-03	SW-04	BLANK-01	SW-08
					Client sampling date / time	05-Aug-2023 10:25	05-Aug-2023 11:45	05-Aug-2023 12:45	05-Aug-2023 13:45	05-Aug-2023 14:05
						WP2318603-001	WP2318603-002	WP2318603-003	WP2318603-004	WP2318603-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00056	0.00049	0.00150	<0.00020	0.00148
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.532	0.070	0.468	<0.010	0.476
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000085	<0.000050	0.000149	<0.000050	0.000212
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0010	0.0056	0.0029	<0.0010	0.0029
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.05	7.84	5.82	<0.0050	6.01
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0178	0.0245	0.124	<0.00010	0.114
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000053	0.000717	0.000361	<0.000050	0.000377
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00078	<0.00050	0.00094	<0.00050	0.00113
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.211	1.88	1.87	<0.050	1.47
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00091	0.00076	0.00234	<0.00020	0.00235
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000156	0.000139	0.000084	<0.000050	0.000126
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.459	6.16	3.25	0.054	3.65
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.01	2.62	2.72	<0.050	2.63
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0197	0.0518	0.0467	<0.00020	0.0482
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.89	<0.50	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00241	0.00076	0.00440	<0.00030	0.00429
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00030	<0.00010	0.00052
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000051	0.00126	0.000298	<0.000010	0.000301
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00110	0.00096	<0.00050	0.00099
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0021	<0.0010	0.0011	<0.0010	0.0017
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00035	<0.00030	0.00048
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	SW-03	SW-04	BLANK-01	SW-08
					Client sampling date / time	05-Aug-2023 10:25	05-Aug-2023 11:45	05-Aug-2023 12:45	05-Aug-2023 13:45	05-Aug-2023 14:05
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2318603-001	WP2318603-002	WP2318603-003	WP2318603-004	WP2318603-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	DUP-01	SW-08A	SW-TR	SW-11	----
				Client sampling date / time	05-Aug-2023 14:10	06-Aug-2023 13:20	06-Aug-2023 11:30	07-Aug-2023 13:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2318603-006	WP2318603-007	WP2318603-008	WP2318603-009	--------
					Result	Result	Result	Result	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.20	7.11	4.52	6.72	----
Temperature, field	----	EF001/WP	0.10	°C	19.1	19.1	19.5	14.8	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	4.1	3.6	14.9	18.2	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	84.9	87.4	<1.0	146	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	84.9	87.4	<1.0	146	----
Conductivity	----	E100/WP	1.0	µS/cm	168	175	26.1	288	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	88.5	87.9	8.30	144	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	88.5	87.6	8.24	146	----
pH	----	E108/WP	0.10	pH units	7.57	7.57	4.55	7.13	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	112	142	31.3	287	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	5.1	6.4	4.4	34.0	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	0.028	0.064	<0.010	0.407	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.94	1.47	<0.10	7.38	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	<0.0051	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0015	0.0010	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0387	0.0464	0.0535	0.201	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	1.13	1.49	<0.30	0.36	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0017	0.0016	0.0016	0.0016	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	0.0012	0.0013	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	0.0012	0.0010	0.0016	0.0016	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-01	SW-08A	SW-TR	SW-11	----
					Client sampling date / time	05-Aug-2023 14:10	06-Aug-2023 13:20	06-Aug-2023 11:30	07-Aug-2023 13:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2318603-006	WP2318603-007	WP2318603-008	WP2318603-009	--------
						Result	Result	Result	Result	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		21.1	21.6	39.4	49.8	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.315	0.353	0.617	0.216	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00014	0.00020	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00310	0.00319	0.00626	0.0230	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0354	0.0365	0.00466	0.0352	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	0.000028	0.000035	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000082	0.0000090	0.0000215	0.0000889	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		25.7	25.6	2.08	39.6	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000020	0.000024	<0.000010	<0.000010	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00057	0.00061	0.00113	0.00126	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00057	0.00061	0.00113	0.00126	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00021	0.00025	0.00041	0.00361	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00139	0.00139	0.00141	0.00110	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.630	0.656	0.840	3.96	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000194	0.000210	0.000414	0.000198	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0031	0.0030	0.0015	0.0048	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		5.90	5.75	0.740	11.4	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.121	0.156	0.0179	1.44	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000064	0.0000089	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000403	0.000414	<0.000050	0.00147	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00121	0.00126	0.00101	0.00435	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.046	0.042	0.038	0.183	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	0.183	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.40	1.43	<0.050	2.84	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00267	0.00281	<0.00020	0.00305	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000117	0.000129	0.000188	0.000286	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.87	3.63	0.21	8.46	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-01	SW-08A	SW-TR	SW-11	----
					Client sampling date / time	05-Aug-2023 14:10	06-Aug-2023 13:20	06-Aug-2023 11:30	07-Aug-2023 13:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2318603-006	WP2318603-007	WP2318603-008	WP2318603-009	--------
						Result	Result	Result	Result	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000010	0.000013	<0.000010	0.000014	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.57	2.87	0.347	9.17	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0462	0.0485	0.00917	0.0827	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.56	0.79	<0.50	0.74	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00019	0.00025	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0104	0.00993	0.0129	0.0112	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00050	0.00059	<0.00010	0.00062	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000290	0.000329	0.000142	0.000171	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00124	0.00130	0.00076	0.00324	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0051	0.0039	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00043	0.00042	0.00030	0.00120	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.114	0.154	0.681	0.237	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00014	0.00020	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00308	0.00336	0.00638	0.0247	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0375	0.0380	0.00518	0.0379	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	0.000029	0.000040	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000059	0.0000089	0.0000238	0.0000972	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		25.2	24.7	2.01	38.0	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00036	0.00039	0.00124	0.00142	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00124	0.00142	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00018	0.00020	0.00041	0.00372	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00123	0.00128	0.00105	0.00118	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.479	0.521	0.884	4.10	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-01	SW-08A	SW-TR	SW-11	----
					Client sampling date / time	05-Aug-2023 14:10	06-Aug-2023 13:20	06-Aug-2023 11:30	07-Aug-2023 13:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2318603-006	WP2318603-007	WP2318603-008	WP2318603-009	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000120	0.000125	0.000369	0.000203	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0028	0.0027	0.0011	0.0047	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		6.22	6.36	0.797	12.0	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.122	0.150	0.0206	1.52	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000059	0.0000098	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000363	0.000419	<0.000050	0.00144	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00110	0.00114	0.00103	0.00483	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	0.042	0.188	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	0.188	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.45	1.53	<0.050	3.10	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00239	0.00254	<0.00020	0.00282	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000111	0.000125	0.000190	0.000288	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.64	3.75	0.173	9.40	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000012	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.74	3.12	0.364	9.83	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0496	0.0515	0.00990	0.0849	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.72	<0.50	0.56	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00021	0.00040	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00441	0.00473	0.0143	0.0129	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00053	0.00061	<0.00010	0.00062	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000304	0.000323	0.000131	0.000176	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00099	0.00107	0.00073	0.00338	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0061	0.0044	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00047	0.00047	0.00043	0.00174 RRV	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2318603**	Page	: 1 of 36
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Aug-2023 08:49
PO	: ----	Issue Date	: 17-Aug-2023 15:30
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Total Metals	QC-MRG3-1080520 002	----	Copper, total	7440-50-8	E420	79.8 % MES	80.0-120%	Recovery less than lower control limit
Total Metals	QC-MRG3-1080520 002	----	Iron, total	7439-89-6	E420	78.0 % MES	80.0-120%	Recovery less than lower control limit
Total Metals	QC-MRG3-1080520 002	----	Selenium, total	7782-49-2	E420	79.8 % MES	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-11	E303	07-Aug-2023	10-Aug-2023	28 days	3 days	✓	10-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-08A	E303	06-Aug-2023	10-Aug-2023	28 days	4 days	✓	10-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-TR	E303	06-Aug-2023	10-Aug-2023	28 days	4 days	✓	10-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) BLANK-01	E303	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-01	E303	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-01	E303	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-03	E303	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
SW-04	E303	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
SW-08	E303	05-Aug-2023	11-Aug-2023	28 days	6 days	✓	11-Aug-2023	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-11	E235.Cl-L	07-Aug-2023	09-Aug-2023	28 days	2 days	✓	09-Aug-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-08A	E235.Cl-L	06-Aug-2023	09-Aug-2023	28 days	3 days	✓	09-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-TR	E235.Cl-L	06-Aug-2023	09-Aug-2023	28 days	3 days	✓	09-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
BLANK-01	E235.Cl-L	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
DUP-01	E235.Cl-L	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-01	E235.Cl-L	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-03	E235.Cl-L	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-04	E235.Cl-L	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-08	E235.Cl-L	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-11	E235.NO3-L	07-Aug-2023	09-Aug-2023	3 days	2 days	✓	09-Aug-2023	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-08A	E235.NO3-L	06-Aug-2023	09-Aug-2023	3 days	3 days	✓	09-Aug-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO3-L	06-Aug-2023	09-Aug-2023	3 days	3 days	✓	09-Aug-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
BLANK-01	E235.NO3-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
DUP-01	E235.NO3-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-01	E235.NO3-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-03	E235.NO3-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-04	E235.NO3-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-08	E235.NO3-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-11	E235.NO2-L	07-Aug-2023	09-Aug-2023	3 days	2 days	✓	09-Aug-2023	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-08A	E235.NO2-L	06-Aug-2023	09-Aug-2023	3 days	3 days	✓	09-Aug-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-TR	E235.NO2-L	06-Aug-2023	09-Aug-2023	3 days	3 days	✓	09-Aug-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE BLANK-01	E235.NO2-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DUP-01	E235.NO2-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-01	E235.NO2-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-03	E235.NO2-L	05-Aug-2023	09-Aug-2023	3 days	4 days	✗ EHTR	09-Aug-2023	3 days	4 days	✗ EHTR-FM

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-04	E235.NO2-L	05-Aug-2023	09-Aug-2023	3 days	4 days	× EHTR	09-Aug-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-08	E235.NO2-L	05-Aug-2023	09-Aug-2023	3 days	4 days	× EHTR	09-Aug-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-11	E235.SO4	07-Aug-2023	09-Aug-2023	28 days	2 days	✓	09-Aug-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-08A	E235.SO4	06-Aug-2023	09-Aug-2023	28 days	3 days	✓	09-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-TR	E235.SO4	06-Aug-2023	09-Aug-2023	28 days	3 days	✓	09-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE BLANK-01	E235.SO4	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE DUP-01	E235.SO4	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-01	E235.SO4	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-03	E235.SO4	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-04	E235.SO4	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-08	E235.SO4	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-11	E372-U	07-Aug-2023	11-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08A	E372-U	06-Aug-2023	11-Aug-2023	28 days	5 days	✓	14-Aug-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TR	E372-U	06-Aug-2023	11-Aug-2023	28 days	5 days	✓	14-Aug-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
BLANK-01	E372-U	05-Aug-2023	11-Aug-2023	28 days	6 days	✓	14-Aug-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-01	E372-U	05-Aug-2023	11-Aug-2023	28 days	6 days	✓	14-Aug-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-01	E372-U	05-Aug-2023	11-Aug-2023	28 days	6 days	✓	14-Aug-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-03	E372-U	05-Aug-2023	11-Aug-2023	28 days	6 days	✓	14-Aug-2023	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	05-Aug-2023	11-Aug-2023	28 days	6 days	✓	14-Aug-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	05-Aug-2023	11-Aug-2023	28 days	6 days	✓	14-Aug-2023	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E339-L	07-Aug-2023	11-Aug-2023	14 days	4 days	✓	11-Aug-2023	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08A	E339-L	06-Aug-2023	11-Aug-2023	14 days	5 days	✓	11-Aug-2023	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TR	E339-L	06-Aug-2023	11-Aug-2023	14 days	5 days	✓	11-Aug-2023	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK-01	E339-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-01	E339-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E339-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-03	E339-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	07-Aug-2023	11-Aug-2023	14 days	4 days	✓	11-Aug-2023	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	06-Aug-2023	11-Aug-2023	14 days	5 days	✓	11-Aug-2023	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	06-Aug-2023	11-Aug-2023	14 days	5 days	✓	11-Aug-2023	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E333-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	07-Aug-2023	11-Aug-2023	14 days	4 days	✓	11-Aug-2023	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	06-Aug-2023	11-Aug-2023	14 days	5 days	✓	11-Aug-2023	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	06-Aug-2023	11-Aug-2023	14 days	5 days	✓	11-Aug-2023	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E336-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	11-Aug-2023	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	07-Aug-2023	14-Aug-2023	180 days	7 days	✓	14-Aug-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.Cr-L	06-Aug-2023	14-Aug-2023	180 days	8 days	✓	14-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	06-Aug-2023	14-Aug-2023	180 days	8 days	✓	14-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-01	E421.Cr-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.Cr-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-11	E509	07-Aug-2023	10-Aug-2023	28 days	3 days	✓	10-Aug-2023	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08A	E509	06-Aug-2023	10-Aug-2023	28 days	4 days	✓	10-Aug-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-TR	E509	06-Aug-2023	10-Aug-2023	28 days	4 days	✓	10-Aug-2023	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK-01	E509	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DUP-01	E509	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-01	E509	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-03	E509	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-11	E421	07-Aug-2023	14-Aug-2023	180 days	7 days	✓	14-Aug-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08A	E421	06-Aug-2023	14-Aug-2023	180 days	8 days	✓	14-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	06-Aug-2023	14-Aug-2023	180 days	8 days	✓	14-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK-01	E421	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-01	E421	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	07-Aug-2023	14-Aug-2023	180 days	7 days	✓	14-Aug-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08A	E421.P-L	06-Aug-2023	14-Aug-2023	180 days	8 days	✓	14-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	06-Aug-2023	14-Aug-2023	180 days	8 days	✓	14-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK-01	E421.P-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-01	E421.P-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08	E421.P-L	05-Aug-2023	14-Aug-2023	180 days	9 days	✓	14-Aug-2023	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	07-Aug-2023	----	----	----		09-Aug-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08A	EF001	06-Aug-2023	----	----	----		09-Aug-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	06-Aug-2023	----	----	----		09-Aug-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-01	EF001	05-Aug-2023	----	----	----		09-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	05-Aug-2023	----	----	----		09-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-03	EF001	05-Aug-2023	----	----	----		09-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	05-Aug-2023	----	----	----		09-Aug-2023	----	4 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	05-Aug-2023	----	----	----		09-Aug-2023	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-11	E358-L	07-Aug-2023	10-Aug-2023	28 days	3 days	✓	10-Aug-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	06-Aug-2023	10-Aug-2023	28 days	4 days	✓	10-Aug-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TR	E358-L	06-Aug-2023	10-Aug-2023	28 days	4 days	✓	10-Aug-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) BLANK-01	E358-L	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DUP-01	E358-L	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-03	E358-L	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-04	E358-L	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08	E358-L	05-Aug-2023	10-Aug-2023	28 days	5 days	✓	10-Aug-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-11	E283	07-Aug-2023	11-Aug-2023	14 days	4 days	✓	12-Aug-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-08A	E283	06-Aug-2023	11-Aug-2023	14 days	5 days	✓	12-Aug-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-TR	E283	06-Aug-2023	11-Aug-2023	14 days	5 days	✓	12-Aug-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK-01	E283	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	12-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-01	E283	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	12-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-01	E283	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	12-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-03	E283	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	12-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-04	E283	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	12-Aug-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	05-Aug-2023	11-Aug-2023	14 days	6 days	✓	12-Aug-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-11	E290	07-Aug-2023	09-Aug-2023	14 days	2 days	✓	09-Aug-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08A	E290	06-Aug-2023	09-Aug-2023	14 days	3 days	✓	09-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TR	E290	06-Aug-2023	09-Aug-2023	14 days	3 days	✓	09-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE BLANK-01	E290	05-Aug-2023	09-Aug-2023	14 days	4 days	✓	09-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DUP-01	E290	05-Aug-2023	09-Aug-2023	14 days	4 days	✓	09-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-01	E290	05-Aug-2023	09-Aug-2023	14 days	4 days	✓	09-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-03	E290	05-Aug-2023	09-Aug-2023	14 days	4 days	✓	09-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-04	E290	05-Aug-2023	09-Aug-2023	14 days	4 days	✓	09-Aug-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08	E290	05-Aug-2023	09-Aug-2023	14 days	4 days	✓	09-Aug-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-11	E100	07-Aug-2023	09-Aug-2023	28 days	2 days	✓	09-Aug-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08A	E100	06-Aug-2023	09-Aug-2023	28 days	3 days	✓	09-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-TR	E100	06-Aug-2023	09-Aug-2023	28 days	3 days	✓	09-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE BLANK-01	E100	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE DUP-01	E100	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-01	E100	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-03	E100	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-04	E100	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-08	E100	05-Aug-2023	09-Aug-2023	28 days	4 days	✓	09-Aug-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE SW-11	E108	07-Aug-2023	09-Aug-2023	0.25 hrs	49 hrs	× EHTR-FM	09-Aug-2023	0.25 hrs	49 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08A	E108	06-Aug-2023	09-Aug-2023	0.25 hrs	72 hrs	× EHTR-FM	09-Aug-2023	0.25 hrs	72 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-TR	E108	06-Aug-2023	09-Aug-2023	0.25 hrs	74 hrs	× EHTR-FM	09-Aug-2023	0.25 hrs	74 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DUP-01	E108	05-Aug-2023	09-Aug-2023	0.25 hrs	95 hrs	× EHTR-FM	09-Aug-2023	0.25 hrs	95 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08	E108	05-Aug-2023	09-Aug-2023	0.25 hrs	95 hrs	× EHTR-FM	09-Aug-2023	0.25 hrs	95 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE BLANK-01	E108	05-Aug-2023	09-Aug-2023	0.25 hrs	96 hrs	× EHTR-FM	09-Aug-2023	0.25 hrs	96 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-04	E108	05-Aug-2023	09-Aug-2023	0.25 hrs	97 hrs	× EHTR-FM	09-Aug-2023	0.25 hrs	97 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-03	E108	05-Aug-2023	09-Aug-2023	0.25 hrs	98 hrs	× EHTR-FM	09-Aug-2023	0.25 hrs	98 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE SW-01	E108	05-Aug-2023	09-Aug-2023	0.25 hrs	99 hrs	✗ EHTR-FM	09-Aug-2023	0.25 hrs	99 hrs	✗ EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-11	E162-L	07-Aug-2023	----	----	----		10-Aug-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08A	E162-L	06-Aug-2023	----	----	----		10-Aug-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TR	E162-L	06-Aug-2023	----	----	----		10-Aug-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE BLANK-01	E162-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DUP-01	E162-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-01	E162-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-03	E162-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-04	E162-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE										
SW-08	E162-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-11	E160-L	07-Aug-2023	----	----	----		10-Aug-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-08A	E160-L	06-Aug-2023	----	----	----		10-Aug-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-TR	E160-L	06-Aug-2023	----	----	----		10-Aug-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
BLANK-01	E160-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
DUP-01	E160-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-01	E160-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-03	E160-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-04	E160-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	05-Aug-2023	----	----	----		10-Aug-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	07-Aug-2023	11-Aug-2023	180 days	4 days	✓	11-Aug-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	06-Aug-2023	11-Aug-2023	180 days	5 days	✓	11-Aug-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	06-Aug-2023	11-Aug-2023	180 days	5 days	✓	11-Aug-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-01	E420.Cr-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-01	E508	05-Aug-2023	15-Aug-2023	28 days	10 days	✓	15-Aug-2023	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	05-Aug-2023	15-Aug-2023	28 days	10 days	✓	15-Aug-2023	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	05-Aug-2023	15-Aug-2023	28 days	10 days	✓	15-Aug-2023	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	05-Aug-2023	15-Aug-2023	28 days	10 days	✓	15-Aug-2023	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	05-Aug-2023	15-Aug-2023	28 days	10 days	✓	15-Aug-2023	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	05-Aug-2023	15-Aug-2023	28 days	10 days	✓	15-Aug-2023	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	07-Aug-2023	15-Aug-2023	28 days	8 days	✓	15-Aug-2023	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	06-Aug-2023	15-Aug-2023	28 days	9 days	✓	15-Aug-2023	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-TR	E508	06-Aug-2023	15-Aug-2023	28 days	9 days	✓	15-Aug-2023	28 days	9 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-11	E420	07-Aug-2023	11-Aug-2023	180 days	4 days	✓	11-Aug-2023	180 days	4 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-08A	E420	06-Aug-2023	11-Aug-2023	180 days	5 days	✓	11-Aug-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-TR	E420	06-Aug-2023	11-Aug-2023	180 days	5 days	✓	11-Aug-2023	180 days	5 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BLANK-01	E420	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
DUP-01	E420	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-01	E420	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-03	E420	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-04	E420	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	07-Aug-2023	11-Aug-2023	180 days	4 days	✓	11-Aug-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	06-Aug-2023	11-Aug-2023	180 days	5 days	✓	11-Aug-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	06-Aug-2023	11-Aug-2023	180 days	5 days	✓	11-Aug-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-01	E420.P-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-01	E420.P-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-08	E420.P-L	05-Aug-2023	11-Aug-2023	180 days	6 days	✓	11-Aug-2023	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1081127	2	36	5.5	5.0	✓
Alkalinity Species by Titration	E290	1076915	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1078634	3	58	5.1	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1077210	1	20	5.0	5.0	✓
Conductivity in Water	E100	1076914	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1083539	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1078686	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1083537	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1078261	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1083540	1	20	5.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1081422	2	34	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1077208	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1077209	1	20	5.0	5.0	✓
pH by Meter	E108	1076913	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1077207	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1077240	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1080521	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1081423	2	37	5.4	5.0	✓
Total Mercury in Water by CVAAS	E508	1085514	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1080520	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1081445	2	31	6.4	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1080522	0	9	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1077241	2	30	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1081421	2	34	5.8	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1081127	2	36	5.5	5.0	✓
Alkalinity Species by Titration	E290	1076915	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1078634	3	58	5.1	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1077210	1	20	5.0	5.0	✓
Conductivity in Water	E100	1076914	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1083539	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1078686	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1083537	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1078261	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1083540	1	20	5.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1081422	2	34	5.8	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1077208	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1077209	1	20	5.0	5.0	✓
pH by Meter	E108	1076913	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1077207	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1077240	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1080521	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1081423	2	37	5.4	5.0	✓
Total Mercury in Water by CVAAS	E508	1085514	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1080520	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1081445	2	31	6.4	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1080522	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1077241	2	30	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1081421	2	34	5.8	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1081127	2	36	5.5	5.0	✓
Alkalinity Species by Titration	E290	1076915	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1078634	3	58	5.1	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1077210	1	20	5.0	5.0	✓
Conductivity in Water	E100	1076914	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1083539	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1078686	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1083537	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1078261	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1083540	1	20	5.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1081422	2	34	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1077208	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1077209	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1077207	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1077240	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1080521	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1081423	2	37	5.4	5.0	✓
Total Mercury in Water by CVAAS	E508	1085514	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1080520	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1081445	2	31	6.4	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1080522	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1077241	2	30	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1081421	2	34	5.8	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1078634	3	58	5.1	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1077210	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1083539	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1078686	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1083537	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1078261	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1083540	1	20	5.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1081422	2	34	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1077208	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1077209	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1077207	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1080521	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1081423	2	37	5.4	5.0	✓
Total Mercury in Water by CVAAS	E508	1085514	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1080520	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1081445	2	31	6.4	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1080522	0	9	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1081421	2	34	5.8	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2318603**	Page	: 1 of 21
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Aug-2023 08:49
PO	: ----	Date Analysis Commenced	: 09-Aug-2023
C-O-C number	: ----	Issue Date	: 17-Aug-2023 15:31
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1076913)											
WP2318603-001	SW-01	pH	----	E108	0.10	pH units	6.40	6.36	0.627%	4%	----
Physical Tests (QC Lot: 1076914)											
WP2318603-001	SW-01	Conductivity	----	E100	1.0	µS/cm	44.8	45.0	0.445%	10%	----
Physical Tests (QC Lot: 1076915)											
WP2318603-001	SW-01	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	13.4	13.4	0.00%	20%	----
Physical Tests (QC Lot: 1077240)											
WP2318597-010	Anonymous	Solids, total dissolved [TDS]	----	E162-L	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1077241)											
WP2318590-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	28.3	30.8	8.57%	20%	----
Physical Tests (QC Lot: 1077242)											
WP2318603-006	DUP-01	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.1	6.1	1.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1081127)											
WP2318590-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	5.8	5.4	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 1081131)											
WP2318603-006	DUP-01	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.1	3.7	0.4	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1077207)											
WP2318603-001	SW-01	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1077208)											
WP2318603-001	SW-01	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1077209)											
WP2318603-001	SW-01	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1077210)											
WP2318603-001	SW-01	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1078634)											
WP2318603-004	BLANK-01	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1078760)											
WP2318702-004	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.029	0.031	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1081445)											
WP2318590-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0288	0.0284	1.33%	20%	----
Anions and Nutrients (QC Lot: 1081446)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1081446) - continued											
WP2318603-006	DUP-01	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0387	0.0447	14.3%	20%	----
Anions and Nutrients (QC Lot: 1081558)											
WP2318913-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.100	mg/L	1.93	1.94	0.572%	20%	----
Cyanides (QC Lot: 1081421)											
WP2318338-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1081422)											
WP2318338-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1081423)											
WP2318338-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0014	0.0015	0.00005	Diff <2x LOR	----
Cyanides (QC Lot: 1081424)											
WP2318603-002	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1081425)											
WP2318603-002	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1081426)											
WP2318603-002	SW-03	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1078261)											
WP2318603-001	SW-01	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	35.8	36.8	2.61%	20%	----
Total Metals (QC Lot: 1080520)											
WP2318573-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0250	0.0278	0.0028	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00051	0.00055	0.00004	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00078	0.00078	0.0000008	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0127	0.0132	4.09%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.280	0.299	6.54%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000125	0.0000112	0.0000012	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	73.9	73.4	0.742%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000080	0.000081	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00034	0.00038	0.00004	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00068	0.00072	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.028	0.029	0.0008	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000168	0.000187	0.000019	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1080520) - continued											
WP2318573-002	Anonymous	Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0744	0.0826	10.5%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	33.4	37.0	10.2%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0548	0.0553	1.01%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00458	0.00497	8.29%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00326	0.00347	0.00022	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.144	0.112	0.032	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	28.2	29.1	3.27%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0214	0.0221	3.48%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000516	0.000518	0.370%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.53	4.69	3.58%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	189	192	1.36%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.246	0.273	10.3%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	145	150	3.86%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000473	0.000535	12.2%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00069	0.00075	0.00006	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0330	0.0348	5.34%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1085514)											
WP2318463-003	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1078686)											
WP2318597-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1083537)											
WP2318597-005	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0026	0.0027	0.00007	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00055	0.00057	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0209	0.0206	1.51%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1083537) - continued											
WP2318597-005	Anonymous	Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.010	0.010	0.00007	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	37.9	35.0	8.07%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00109	0.00107	1.55%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	2.27	2.26	0.740%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0044	0.0043	0.00004	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	10.2	10.1	1.04%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.164	0.160	2.31%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00118	0.00101	15.4%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.35	2.35	0.0825%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00227	0.00227	0.191%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	10.0	9.98	0.500%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	3.93	3.94	0.338%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0742	0.0708	4.77%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.77	1.55	0.22	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00033	0.00034	0.00001	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000078	0.000082	0.000004	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1083539)											
WP2318597-005	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1083540)											
WP2318597-005	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1076914)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1076915)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1077240)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1077241)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1077242)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1081127)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1081131)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1077207)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1077208)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1077209)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1077210)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1078634)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1078760)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1081445)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1081446)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1081558)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Cyanides (QCLot: 1081421)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1081421) - continued						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1081422)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1081423)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1081424)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1081425)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1081426)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1078261)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1080520)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1080520) - continued						
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1080521)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1080522)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1085514)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1078686)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1083537)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1083537) - continued						
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1083539)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1083540)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1076913)									
pH	----	E108	----	pH units	7 pH units	99.3	98.0	102	----
Physical Tests (QCLot: 1076914)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	103	90.0	110	----
Physical Tests (QCLot: 1076915)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1077240)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.4	85.0	115	----
Physical Tests (QCLot: 1077241)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	97.1	85.0	115	----
Physical Tests (QCLot: 1077242)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	106	85.0	115	----
Physical Tests (QCLot: 1081127)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1081131)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 1077207)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1077208)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1077209)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1077210)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1078634)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1078760)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1081445)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	91.5	80.0	120	----
Anions and Nutrients (QCLot: 1081446)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	91.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1081558)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	99.0	85.0	115	----
Cyanides (QCLot: 1081421)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	99.2	80.0	120	----
Cyanides (QCLot: 1081422)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	99.1	80.0	120	----
Cyanides (QCLot: 1081423)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	97.4	80.0	120	----
Cyanides (QCLot: 1081424)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	98.8	80.0	120	----
Cyanides (QCLot: 1081425)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	101	80.0	120	----
Cyanides (QCLot: 1081426)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	99.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1078261)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	93.6	80.0	120	----
Total Metals (QCLot: 1080520)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	86.9	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	91.1	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	86.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	93.0	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	87.5	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	88.8	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	84.4	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.6	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.7	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	80.2	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	81.7	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	# 79.8	80.0	120	MES
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	# 78.0	80.0	120	MES
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	81.7	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	85.2	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	86.7	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1080520) - continued									
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	93.7	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	88.7	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	81.5	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	90.8	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	82.7	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	98.6	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	# 79.8	80.0	120	MES
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	87.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	85.3	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	87.2	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	108	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	86.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	86.4	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	87.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	87.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	84.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	86.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	83.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	81.8	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	84.9	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	80.8	80.0	120	----
Total Metals (QCLot: 1080521)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	80.2	80.0	120	----
Total Metals (QCLot: 1080522)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	90.8	80.0	120	----
Total Metals (QCLot: 1085514)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	97.2	80.0	120	----
Dissolved Metals (QCLot: 1083537)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	97.8	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	92.6	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.0	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1083537) - continued									
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	93.7	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	98.6	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.5	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	93.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	93.9	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	99.7	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	95.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	95.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	93.6	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	91.9	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	90.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	93.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	99.4	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.9	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	86.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	92.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	97.4	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.6	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	91.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.9	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	98.3	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.1	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.1	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	86.8	80.0	120	----
Dissolved Metals (QCLot: 1083539)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	93.9	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1083540) - continued									
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	99.4	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1077207)										
WP2318603-001	SW-01	Sulfate (as SO4)	14808-79-8	E235.SO4	99.5 mg/L	100 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 1077208)										
WP2318603-001	SW-01	Nitrate (as N)	14797-55-8	E235.NO3-L	2.49 mg/L	2.5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1077209)										
WP2318603-001	SW-01	Nitrite (as N)	14797-65-0	E235.NO2-L	0.490 mg/L	0.5 mg/L	97.9	75.0	125	----
Anions and Nutrients (QCLot: 1077210)										
WP2318603-001	SW-01	Chloride	16887-00-6	E235.Cl-L	99.0 mg/L	100 mg/L	99.0	75.0	125	----
Anions and Nutrients (QCLot: 1078634)										
WP2318603-004	BLANK-01	Ammonia, total (as N)	7664-41-7	E303	0.238 mg/L	0.25 mg/L	95.2	75.0	125	----
Anions and Nutrients (QCLot: 1078760)										
WP2318702-004	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.218 mg/L	0.25 mg/L	87.1	75.0	125	----
Anions and Nutrients (QCLot: 1081445)										
WP2318590-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.236 mg/L	0.25 mg/L	94.6	70.0	130	----
Anions and Nutrients (QCLot: 1081446)										
WP2318603-007	SW-08A	Phosphorus, total	7723-14-0	E372-U	0.240 mg/L	0.25 mg/L	95.8	70.0	130	----
Anions and Nutrients (QCLot: 1081558)										
WP2318913-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	ND mg/L	0.25 mg/L	ND	75.0	125	----
Cyanides (QCLot: 1081421)										
WP2318338-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.117 mg/L	0.125 mg/L	93.7	75.0	125	----
Cyanides (QCLot: 1081422)										
WP2318338-001	Anonymous	Cyanide, free	----	E339-L	0.120 mg/L	0.125 mg/L	95.8	75.0	125	----
Cyanides (QCLot: 1081423)										
WP2318338-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.218 mg/L	0.25 mg/L	87.2	75.0	125	----
Cyanides (QCLot: 1081424)										
WP2318603-002	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.242 mg/L	0.25 mg/L	96.7	75.0	125	----
Cyanides (QCLot: 1081425)										
WP2318603-002	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.128 mg/L	0.125 mg/L	103	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Cyanides (QCLot: 1081426)										
WP2318603-002	SW-03	Cyanide, free	----	E339-L	0.124 mg/L	0.125 mg/L	99.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1078261)										
WP2318603-002	SW-03	Carbon, dissolved organic [DOC]	----	E358-L	4.63 mg/L	5 mg/L	92.6	70.0	130	----
Total Metals (QCLot: 1080520)										
WP2318573-002	Anonymous	Aluminum, total	7429-90-5	E420	0.184 mg/L	0.2 mg/L	92.0	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0182 mg/L	0.02 mg/L	90.9	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0185 mg/L	0.02 mg/L	92.6	70.0	130	----
		Barium, total	7440-39-3	E420	0.0176 mg/L	0.02 mg/L	87.9	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00878 mg/L	0.01 mg/L	87.8	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00356 mg/L	0.004 mg/L	88.9	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00910 mg/L	0.01 mg/L	91.0	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0343 mg/L	0.04 mg/L	85.7	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0178 mg/L	0.02 mg/L	88.9	70.0	130	----
		Copper, total	7440-50-8	E420	0.0166 mg/L	0.02 mg/L	82.9	70.0	130	----
		Iron, total	7439-89-6	E420	1.82 mg/L	2 mg/L	90.9	70.0	130	----
		Lead, total	7439-92-1	E420	0.0178 mg/L	0.02 mg/L	89.0	70.0	130	----
		Lithium, total	7439-93-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0325 mg/L	0.04 mg/L	81.2	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.37 mg/L	10 mg/L	93.7	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0367 mg/L	0.04 mg/L	91.7	70.0	130	----
		Silicon, total	7440-21-3	E420	8.80 mg/L	10 mg/L	88.0	70.0	130	----
		Silver, total	7440-22-4	E420	0.00350 mg/L	0.004 mg/L	87.5	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0383 mg/L	0.04 mg/L	95.7	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00362 mg/L	0.004 mg/L	90.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1080520) - continued										
WP2318573-002	Anonymous	Thorium, total	7440-29-1	E420	0.0191 mg/L	0.02 mg/L	95.7	70.0	130	----
		Tin, total	7440-31-5	E420	0.0181 mg/L	0.02 mg/L	90.7	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0363 mg/L	0.04 mg/L	90.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00368 mg/L	0.004 mg/L	92.1	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0930 mg/L	0.1 mg/L	93.0	70.0	130	----
		Zinc, total	7440-66-6	E420	0.352 mg/L	0.4 mg/L	88.1	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0370 mg/L	0.04 mg/L	92.6	70.0	130	----
Total Metals (QCLot: 1085514)										
WP2318603-001	SW-01	Mercury, total	7439-97-6	E508	0.0000930 mg/L	0.0001 mg/L	93.0	70.0	130	----
Dissolved Metals (QCLot: 1078686)										
WP2318597-006	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1083537)										
WP2318597-005	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00920 mg/L	0.01 mg/L	92.0	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.100 mg/L	0.1 mg/L	99.7	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00410 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00955 mg/L	0.01 mg/L	95.5	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0191 mg/L	0.02 mg/L	95.7	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0999 mg/L	0.1 mg/L	99.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0183 mg/L	0.02 mg/L	91.3	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0395 mg/L	0.04 mg/L	98.7	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1083537) - continued										
WP2318597-005	Anonymous	Potassium, dissolved	7440-09-7	E421	4.16 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00332 mg/L	0.004 mg/L	83.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.7 mg/L	20 mg/L	103	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00384 mg/L	0.004 mg/L	96.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00386 mg/L	0.004 mg/L	96.4	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.407 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0380 mg/L	0.04 mg/L	94.9	70.0	130	----
Dissolved Metals (QCLot: 1083539)										
WP2318597-005	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1083540)										
WP2318597-005	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.7 mg/L	10 mg/L	107	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	**ALS Contact:** Judy Dalmaijer **Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
1	SW-01	5-Aug-23	10:25	Water	9	X			6.13	22.2	43.7
2	SW-03	5-Aug-23	11:45	Water	9	X			7.98	14.2	199.2
3	SW-04	5-Aug-23	12:45	Water	9	X			7.25	21.2	159.9
4	BLANK-01	5-Aug-23	13:45	Water	9	X			X	X	X
5	SW-08	5-Aug-23	14:05	Water	9	X			7.2	19.1	148.5
6	DUP-01	5-Aug-23	14:10	Water	9	X			7.2	19.1	148.5
7	SW-08A	6-Aug-23	13:20	Water	9	X			7.11	19.1	157.9
8	SW-TR	6-Aug-23	11:30	Water	9	X			4.52	19.5	22.2
9	SW-11	7-Aug-23	13:00	Water	9	X			6.72	14.8	-29.3

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: Aaron Peloquin	Date: 8/8/2023	Time:	Received by:	Date: AUG 09 2023	Time: 8:49	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2318603

Telephone : +1 204 255 9720

15.1

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
1	SW-01	5-Aug-23	10:25	Water	9	X			6.13	22.2	43.7
2	SW-03	5-Aug-23	11:45	Water	9	X			7.98	14.2	199.2
3	SW-04	5-Aug-23	12:45	Water	9	X			7.25	21.2	159.9
4	BLANK-01	5-Aug-23	13:45	Water	9	X			X	X	X
5	SW-08	5-Aug-23	14:05	Water	9	X			7.2	19.1	148.5
6	DUP-01	5-Aug-23	14:10	Water	9	X			7.2	19.1	148.5
7	SW-08A	6-Aug-23	13:20	Water	9	X			7.11	19.1	157.9
8	SW-TR	6-Aug-23	11:30	Water	9	X			4.52	19.5	22.2
9	SW-11	7-Aug-23	13:00	Water	9	X			6.72	14.8	-29.3

SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Aaron Peloquin	Date: 8/8/2023	Time:	Received by:	Date: AUG 09 2023	Time: 8:49	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2318603

Telephone : +1 204 255 9720

15.1

ALS Canada Ltd.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2319115**	Page	: 1 of 8
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2023 08:30
PO	: ----	Date Analysis Commenced	: 14-Aug-2023
C-O-C number	: ----	Issue Date	: 21-Aug-2023 15:31
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Metals, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-REF	DC-US	DUP-02	FIELD-02	GL-TRIB
					Client sampling date / time	10-Aug-2023 12:00	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 13:10
						WP2319115-001	WP2319115-002	WP2319115-003	WP2319115-004	WP2319115-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.73	7.17	7.17	----	7.48
Temperature, field	----	EF001/WP	0.10	°C		21.1	20.9	20.9	----	21.0
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.6	2.9	4.9	<2.0	2.5
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		38.4	38.6	39.1	<1.0	37.6
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		38.4	38.6	39.1	<1.0	37.6
Conductivity	----	E100/WP	1.0	µS/cm		80.8	82.3	83.3	<1.0	79.5
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		40.1	40.8	40.4	<0.50	39.4
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		40.2	42.0	40.8	<0.50	42.4
pH	----	E108/WP	0.10	pH units		7.48	7.32	7.31	5.31	7.52
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		77.7	76.7	75.0	<3.0	69.7
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		7.5	10.4	9.8	<1.0	11.1
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.038	0.015	0.033	<0.010	0.017
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.21	0.20	0.20	<0.10	0.22
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0093	<0.0050	<0.0050	<0.0050	0.0094
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0093	<0.0051	<0.0051	<0.0051	0.0094
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0510	0.0589	0.0556	<0.0020	0.0525
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.69	0.61	0.60	<0.30	0.61
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0012	<0.0010	0.0013
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0012	0.0019	<0.0010	0.0020

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-REF	DC-US	DUP-02	FIELD-02	GL-TRIB
					Client sampling date / time	10-Aug-2023 12:00	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 13:10
						WP2319115-001	WP2319115-002	WP2319115-003	WP2319115-004	WP2319115-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0017	<0.0010	0.0015
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		19.7	20.7	20.9	<0.50	18.2
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.109	0.104	0.113	<0.0030	0.0607
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00445	0.00410	0.00410	<0.00010	0.00348
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00907	0.00843	0.00882	<0.00010	0.00728
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000055	<0.0000050	<0.0000050	0.0000065
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.5	11.1	10.6	<0.050	11.6
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000014	0.000012	0.000015	<0.000010	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00039	0.00032	0.00034	<0.00010	0.00027
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00021	0.00019	0.00021	<0.00010	0.00014
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00081	0.00078	0.00077	<0.00050	0.00072
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.515	0.512	0.622	<0.010	0.323
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000106	0.000079	0.000086	<0.000050	0.000053
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0014	0.0015	0.0013	<0.0010	0.0018
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.39	3.46	3.48	<0.0050	3.26
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.102	0.0490	0.0576	<0.00010	0.0355
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000256	0.000257	0.000239	<0.000050	0.000285
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00056	0.00071	0.00063	<0.00050	0.00058
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.048	0.056	0.057	<0.030	0.054
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.056	0.057	<0.050	0.054
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.12	1.13	1.11	<0.050	1.10
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00246	0.00249	0.00238	<0.00020	0.00241

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-REF	DC-US	DUP-02	FIELD-02	GL-TRIB
					Client sampling date / time	10-Aug-2023 12:00	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 13:10
						WP2319115-001	WP2319115-002	WP2319115-003	WP2319115-004	WP2319115-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000121	0.000108	0.000113	<0.000050	0.000099
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.31	2.01	1.96	<0.10	1.79
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.41	1.47	1.43	<0.050	1.45
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0269	0.0266	0.0288	<0.00020	0.0252
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00372	0.00373	0.00453	<0.00030	0.00178
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000226	0.000160	0.000159	<0.000010	0.000153
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00088	0.00069	0.00069	<0.00050	0.00053
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00025	0.00025	0.00024	<0.00020	0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0450	0.0378	0.0318	<0.0010	0.0284
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00416	0.00359	0.00350	<0.00010	0.00322
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00840	0.00775	0.00800	<0.00010	0.00683
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.0	11.3	11.2	<0.050	10.8
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00020	0.00018	0.00018	<0.00010	0.00016
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00016	0.00011	0.00010	<0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-REF	DC-US	DUP-02	FIELD-02	GL-TRIB
					Client sampling date / time	10-Aug-2023 12:00	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 13:10
						WP2319115-001	WP2319115-002	WP2319115-003	WP2319115-004	WP2319115-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00067	0.00061	0.00060	<0.00020	0.00061
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.273	0.254	0.240	<0.010	0.143
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000069	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0013	0.0015	0.0013	<0.0010	0.0015
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.07	3.05	3.03	<0.0050	3.01
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0696	0.0141	0.0154	<0.00010	0.00366
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000252	0.000213	0.000210	<0.000050	0.000236
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.992	0.968	0.967	<0.050	0.988
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00234	0.00236	0.00227	<0.00020	0.00240
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000091	0.000081	0.000108	<0.000050	0.000085
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.14	1.72	1.71	0.055	1.58
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.29	1.34	1.32	<0.050	1.30
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0263	0.0274	0.0273	<0.00020	0.0270
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00134	0.00113	0.00094	<0.00030	0.00076
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000208	0.000148	0.000148	<0.000010	0.000161
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00064	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DC-REF	DC-US	DUP-02	FIELD-02	GL-TRIB
					Client sampling date / time	10-Aug-2023 12:00	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 12:35	10-Aug-2023 13:10
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319115-001	WP2319115-002	WP2319115-003	WP2319115-004	WP2319115-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	TRAVEL-01	----	----	----	----
					Client sampling date / time	10-Aug-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319115-006	--------	--------	--------	--------
						Result	----	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.032	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		<0.0020	----	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		<0.50	----	----	----	----
Total Metals										
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Dissolved Metals										
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2319115**	Page	: 1 of 26
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2023 08:30
PO	: ----	Issue Date	: 21-Aug-2023 15:31
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Total Metals	QC-MRG5-1087265 002	----	Uranium, total	7440-61-1	E420	122 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Recoveries								
Dissolved Metals	Anonymous	Anonymous	Silver, dissolved	7440-22-4	E421	53.7 % MS-Ag	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
MS-Ag	*MS-Ag: Matrix Spike recovery for silver was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Silver was not detected. Reported result (< LOR) is reliable*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DC-REF	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DC-US	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-02	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) FIELD-02	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) GL-TRIB	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) TRAVEL-01	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DC-REF	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DC-REF	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DC-REF	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DC-REF	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DC-US	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP-02	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] FIELD-02	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
GL-TRIB	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DC-REF	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DC-US	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-02	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
FIELD-02	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
GL-TRIB	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
TRAVEL-01	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-REF	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-02	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL-01	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-REF	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-02	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL-01	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-REF	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-02	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL-01	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DC-REF	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DC-US	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) DUP-02	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) FIELD-02	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) GL-TRIB	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DC-REF	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DC-US	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-02	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) FIELD-02	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GL-TRIB	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) TRAVEL-01	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-REF	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-US	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-02	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) FIELD-02	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) GL-TRIB	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DC-REF	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DC-US	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-02	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) FIELD-02	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GL-TRIB	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DC-REF	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DC-US	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-02	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
GL-TRIB	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DC-REF	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DC-US	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-02	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
FIELD-02	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
GL-TRIB	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
TRAVEL-01	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DC-REF	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DC-US	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-02	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
FIELD-02	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
GL-TRIB	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
TRAVEL-01	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DC-REF	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DC-US	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-02	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] FIELD-02	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] GL-TRIB	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DC-REF	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DC-US	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-02	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] FIELD-02	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] GL-TRIB	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] DC-REF	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DC-US	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-02	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] FIELD-02	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] GL-TRIB	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] FIELD-02	E162-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DC-REF	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DC-US	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-02	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] GL-TRIB	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DC-REF	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DC-US	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-02	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] FIELD-02	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GL-TRIB	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-REF	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-US	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) FIELD-02	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GL-TRIB	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-REF	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-US	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) FIELD-02	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GL-TRIB	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) TRAVEL-01	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-REF	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-US	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) FIELD-02	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) GL-TRIB	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-REF	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-US	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) FIELD-02	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GL-TRIB	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1088079	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	1083913	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	1083903	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1084356	2	27	7.4	5.0	✓
Conductivity in Water	E100	1083914	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1087170	0	14	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1091860	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1087169	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087214	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1087171	0	14	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1092434	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1084357	2	27	7.4	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1084358	2	27	7.4	5.0	✓
pH by Meter	E108	1083912	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1084355	2	40	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1084338	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1087266	1	12	8.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1092432	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1089653	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1087265	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088396	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1087267	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1084297	2	40	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092433	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1088079	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	1083913	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	1083903	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1084356	2	27	7.4	5.0	✓
Conductivity in Water	E100	1083914	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1087170	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1091860	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1087169	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087214	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1087171	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1092434	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1084357	2	27	7.4	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1084358	2	27	7.4	5.0	✓
pH by Meter	E108	1083912	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1084355	2	40	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1084338	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1087266	1	12	8.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1092432	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1089653	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1087265	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088396	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1087267	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1084297	2	40	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092433	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1088079	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	1083913	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	1083903	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1084356	2	27	7.4	5.0	✓
Conductivity in Water	E100	1083914	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1087170	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1091860	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1087169	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087214	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1087171	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1092434	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1084357	2	27	7.4	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1084358	2	27	7.4	5.0	✓
Sulfate in Water by IC	E235.SO4	1084355	2	40	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1084338	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1087266	1	12	8.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1092432	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1089653	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1087265	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088396	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1087267	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1084297	2	40	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092433	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1083903	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1084356	2	27	7.4	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1087170	0	14	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1091860	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1087169	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087214	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1087171	0	14	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1092434	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1084357	2	27	7.4	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1084358	2	27	7.4	5.0	✓
Sulfate in Water by IC	E235.SO4	1084355	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1087266	1	12	8.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1092432	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1089653	2	40	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1087265	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088396	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1087267	1	13	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092433	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2319115**	Page	: 1 of 21
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2023 08:30
PO	: ----	Date Analysis Commenced	: 14-Aug-2023
C-O-C number	: ----	Issue Date	: 21-Aug-2023 15:31
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Winnipeg Metals, Winnipeg, Manitoba
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1083912)											
WP2319025-012	Anonymous	pH	----	E108	0.10	pH units	5.18	5.19	0.193%	4%	----
Physical Tests (QC Lot: 1083913)											
WP2319025-012	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1083914)											
WP2319025-012	Anonymous	Conductivity	----	E100	1.0	µS/cm	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1084297)											
WP2319103-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	4.6	4.8	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1084298)											
WP2319115-005	GL-TRIB	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	11.1	11.0	1.21%	20%	----
Physical Tests (QC Lot: 1084338)											
WP2319111-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	76.2	78.6	2.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1086396)											
WP2319100-003	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	105	95.0	10.3%	20%	----
Physical Tests (QC Lot: 1088079)											
WP2319111-002	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.2	3.9	0.3	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1083903)											
WP2319103-014	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.011	0.026	0.015	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1084355)											
WP2319103-013	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	45.8	45.8	0.163%	20%	----
Anions and Nutrients (QC Lot: 1084356)											
WP2319103-013	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	12.5	12.5	0.173%	20%	----
Anions and Nutrients (QC Lot: 1084357)											
WP2319103-013	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1084358)											
WP2319103-013	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1084362)											
WP2319115-005	GL-TRIB	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.61	0.61	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1084363)											
WP2319115-005	GL-TRIB	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.22	0.21	0.005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1084364)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1084364) - continued											
WP2319115-005	GL-TRIB	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0094	0.0091	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1084365)											
WP2319115-005	GL-TRIB	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1088396)											
WP2318990-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	6.54	6.69	2.20%	20%	----
Anions and Nutrients (QC Lot: 1088397)											
WP2319115-004	FIELD-02	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	<0.0020	<0.0020	0	Diff <2x LOR	----
Cyanides (QC Lot: 1092432)											
WP2319111-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1092433)											
WP2319111-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1092434)											
WP2319111-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1087214)											
WP2319103-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.5	11.5	0.170%	20%	----
Organic / Inorganic Carbon (QC Lot: 1087597)											
WP2319272-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	2.02	1.99	0.02	Diff <2x LOR	----
Total Metals (QC Lot: 1087265)											
WP2319111-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.343	0.333	2.93%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00140	0.00141	0.673%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0137	0.0131	4.13%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000065	<0.0000050	0.0000015	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	12.4	12.8	2.38%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000054	0.000052	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00060	0.00061	0.000003	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00014	0.00014	0.000006	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00132	0.00131	0.000007	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.300	0.306	2.02%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000131	0.000134	0.000002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1087265) - continued											
WP2319111-002	Anonymous	Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0011	0.0011	0.00007	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.98	2.90	2.75%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0190	0.0189	0.569%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000260	0.000252	0.000008	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00065	0.00066	0.00002	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.09	1.08	1.22%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00283	0.00278	1.80%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000097	0.000090	0.000006	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.09	2.05	1.94%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.32	1.35	2.24%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0257	0.0255	0.891%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	0.62	0.78	0.16	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0111	0.0111	0.258%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000092	0.000093	0.0000009	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00106	0.00104	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00022	0.00021	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1087266)											
WP2319111-002	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00060	0.00061	0.000003	Diff <2x LOR	----
Total Metals (QC Lot: 1087267)											
WP2319111-002	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1089653)											
WP2319054-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1089668)											
WP2319115-006	TRAVEL-01	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1087169)											
WP2319066-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0031	0.0030	0.0001	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1087169) - continued											
WP2319066-001	Anonymous	Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00073	0.00071	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0291	0.0296	1.50%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.140	0.141	0.314%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000168	0.0000174	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	42.1	41.0	2.65%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00852	0.00836	1.98%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000065	0.000058	0.000008	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0731	0.0724	1.03%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	97.2	95.4	1.91%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00249	0.00247	0.743%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.0177	0.0185	4.31%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00118	0.00111	0.00007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.062	0.062	0.0002	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.77	2.71	2.18%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000122	0.000134	0.000012	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.52	6.26	3.97%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	158	153	3.19%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.346	0.344	0.679%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	50.2	47.8	4.87%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00031	0.00032	0.000002	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1087169) - continued											
WP2319066-001	Anonymous	Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.121	0.128	5.26%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00284	0.00279	0.00005	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0031	0.0030	0.0001	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00090	0.00092	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1091860)											
WP2319111-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1083913)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1083914)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1084297)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1084298)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1084338)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1086396)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1088079)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1083903)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1084355)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1084356)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1084357)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1084358)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1084362)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1084363)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1084364)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1084365)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1088396)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1088396) - continued						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1088397)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1092432)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1092433)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1092434)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1087214)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1087597)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1087265)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1087265) - continued						
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1087266)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1087267)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1089653)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1089668)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1087169)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1087169) - continued						
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1087170)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1087171)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1091860)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1083912)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1083913)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.9	85.0	115	----
Physical Tests (QCLot: 1083914)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1084297)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1084298)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	106	85.0	115	----
Physical Tests (QCLot: 1084338)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.9	85.0	115	----
Physical Tests (QCLot: 1086396)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	92.8	85.0	115	----
Physical Tests (QCLot: 1088079)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1083903)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	97.8	85.0	115	----
Anions and Nutrients (QCLot: 1084355)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1084356)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1084357)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1084358)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1084362)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1084363)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.4	90.0	110	----
Anions and Nutrients (QCLot: 1084364)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.5	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1084365)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.0	90.0	110	----
Anions and Nutrients (QCLot: 1088396)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	92.5	80.0	120	----
Anions and Nutrients (QCLot: 1088397)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	92.0	80.0	120	----
Cyanides (QCLot: 1092432)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	98.5	80.0	120	----
Cyanides (QCLot: 1092433)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	105	80.0	120	----
Cyanides (QCLot: 1092434)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1087214)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	105	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1087597)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	104	80.0	120	----
Total Metals (QCLot: 1087265)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	113	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	114	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	111	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	111	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	109	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	111	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.3	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	113	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	109	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	110	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	111	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	110	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	111	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	117	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1087265) - continued									
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	110	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	111	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	110	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	112	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	110	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	112	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	108	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	110	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	112	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	110	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	108	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	109	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	110	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	109	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	# 122	80.0	120	MES
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	112	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	110	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Total Metals (QCLot: 1087266)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	110	80.0	120	----
Total Metals (QCLot: 1087267)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	112	80.0	120	----
Total Metals (QCLot: 1089653)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Total Metals (QCLot: 1089668)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1087169)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.6	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	109	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1087169) - continued									
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	93.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	112	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	99.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.3	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	110	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	87.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	99.0	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.6	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.4	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	108	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	106	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.1	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1087170)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	LCS Recovery (%)	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Dissolved Metals (QCLot: 1087170) - continued									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	98.7	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1083903)										
WP2319103-014	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.312 mg/L	0.25 mg/L	125	75.0	125	----
Anions and Nutrients (QCLot: 1084355)										
WP2319103-013	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	97.6 mg/L	100 mg/L	97.6	75.0	125	----
Anions and Nutrients (QCLot: 1084356)										
WP2319103-013	Anonymous	Chloride	16887-00-6	E235.Cl-L	99.2 mg/L	100 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1084357)										
WP2319103-013	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1084358)										
WP2319103-013	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.494 mg/L	0.5 mg/L	98.9	75.0	125	----
Anions and Nutrients (QCLot: 1084362)										
WP2319115-005	GL-TRIB	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1084363)										
WP2319115-005	GL-TRIB	Chloride	16887-00-6	E235.Cl-L	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1084364)										
WP2319115-005	GL-TRIB	Nitrate (as N)	14797-55-8	E235.NO3-L	2.57 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1084365)										
WP2319115-005	GL-TRIB	Nitrite (as N)	14797-65-0	E235.NO2-L	0.505 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1088396)										
WP2318999-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.226 mg/L	0.25 mg/L	90.5	70.0	130	----
Anions and Nutrients (QCLot: 1088397)										
WP2319115-005	GL-TRIB	Phosphorus, total	7723-14-0	E372-U	0.229 mg/L	0.25 mg/L	91.6	70.0	130	----
Cyanides (QCLot: 1092432)										
WP2319111-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.237 mg/L	0.25 mg/L	94.8	75.0	125	----
Cyanides (QCLot: 1092433)										
WP2319111-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.130 mg/L	0.125 mg/L	104	75.0	125	----
Cyanides (QCLot: 1092434)										
WP2319111-001	Anonymous	Cyanide, free	----	E339-L	0.128 mg/L	0.125 mg/L	103	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1087214)										
WP2319103-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1087597)										
WP2319459-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1087265)										
WP2319111-002	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0400 mg/L	0.04 mg/L	100.0	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00977 mg/L	0.01 mg/L	97.7	70.0	130	----
		Boron, total	7440-42-8	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00413 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, total	7440-50-8	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Iron, total	7439-89-6	E420	2.05 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0986 mg/L	0.1 mg/L	98.6	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.2 mg/L	10 mg/L	102	70.0	130	----
		Potassium, total	7440-09-7	E420	4.22 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, total	7440-21-3	E420	10.5 mg/L	10 mg/L	105	70.0	130	----
		Silver, total	7440-22-4	E420	0.00440 mg/L	0.004 mg/L	110	70.0	130	----
		Sodium, total	7440-23-5	E420	1.96 mg/L	2 mg/L	98.2	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.3 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1087265) - continued										
WP2319111-002	Anonymous	Thorium, total	7440-29-1	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.418 mg/L	0.4 mg/L	104	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1087266)										
WP2319111-002	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1087267)										
WP2319111-002	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	10.2 mg/L	10 mg/L	102	70.0	130	----
Total Metals (QCLot: 1089653)										
WP2319057-001	Anonymous	Mercury, total	7439-97-6	E508	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----
Total Metals (QCLot: 1089668)										
WP2319117-001	Anonymous	Mercury, total	7439-97-6	E508	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1087169)										
WP2319066-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.184 mg/L	0.2 mg/L	92.0	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0352 mg/L	0.04 mg/L	88.1	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00868 mg/L	0.01 mg/L	86.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00364 mg/L	0.004 mg/L	90.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00967 mg/L	0.01 mg/L	96.7	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0363 mg/L	0.04 mg/L	90.7	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0178 mg/L	0.02 mg/L	89.3	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0161 mg/L	0.02 mg/L	80.3	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.80 mg/L	2 mg/L	90.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0186 mg/L	0.02 mg/L	92.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0802 mg/L	0.1 mg/L	80.2	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1087169) - continued										
WP2319066-001	Anonymous	Manganese, dissolved	7439-96-5	E421	0.0183 mg/L	0.02 mg/L	91.4	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0337 mg/L	0.04 mg/L	84.3	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.93 mg/L	10 mg/L	99.3	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.59 mg/L	4 mg/L	89.8	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0397 mg/L	0.04 mg/L	99.2	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.23 mg/L	10 mg/L	92.3	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00215 mg/L	0.004 mg/L	53.7	70.0	130	MS-Ag
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00367 mg/L	0.004 mg/L	91.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0377 mg/L	0.04 mg/L	94.2	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0956 mg/L	0.1 mg/L	95.6	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.341 mg/L	0.4 mg/L	85.4	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1091860)										
WP2319111-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Qualifiers

Qualifier	Description
MS-Ag	*MS-Ag: Matrix Spike recovery for silver was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Silver was not detected. Reported result (< LOR) is reliable*

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 22 -

Page of

Environmental Division Winnipeg
Work Order Reference
WP2319100

Telephone : +1 204 255 9720

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Halket Environmental Consultants (HECI100)	Select Report Format: ☑ PDF ☐ EXCEL ☐ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ian Halket	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge m
Phone:	204-583-7058	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge n
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge n
Street:	19 Clapham Cove	Email 1 or Fax ian@halketec.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge n
City/Province:	Winnipeg, MB	Email 2	☐ Same day [E2] if received by 10am M-S - 200% rush surcl
Postal Code:	R2N 4M9	Email 3	Additional fees may apply to rush requests on weekends, statutory holidays and non-...
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Recipients	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm
	Copy of Invoice with Report ☐ YES ☐ NO	Select Invoice Distribution: ☐ EMAIL MAIL ☑ FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.
Company:		Email 1 or Fax ian@halketec.com	
Contact:		Email 2	

Project Information		Oil and Gas Required Fields (client use)	
ALS Client Code / QUOTE #:	HECI100 23-0001	AFE/Cost Center:	PO#
Job / Project #:	Split Lake WQ Project 2023	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only): ALS Contact: Sampler:

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	MB-CH-PWS Chem pkg	E010.EC (E.Coli QT97)	E160 -TSS E162-L - TDS	E319 - TKN & N-TOT-Calc + EC368	E372-S Total Phosphorou	E378-U Dissolved Ortho Phosphate	S870B - Chlorphyll & Pheophytin	E921A - Blue Green Algae Count & ID	Greenwater Labs - Algae Toxins	Microcystin, Nodularin	Anaetox A & Cylindrospermopsin	3W-ATX+CYN/MCS+NODs	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	WQ1S	11-08-23	10:31	Surface Water	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	WQ1B	11-08-23	10:36	Surface Water	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	WQ2S	11-08-23	10:14	Surface Water	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	WQ2B	11-08-23	10:18	Surface Water	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	WQ3	11-08-23	11:04	Surface Water	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	WTP - Raw	11-08-23	11:11	Water - Raw	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	WTP - Treated	11-08-23	11:02	Water - Treated	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			

Environmental Division Winnipeg
Work Order Reference
WP2319115

Telephone : +1 204 255 9720

Drinking Water (DW) Samples — for result evaluation by selecting from drop-down below (Excel COC only)

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

SAMPLE RECEIPT DETAILS (ALS use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Cooler Custody Seals Intact: YES N/A Sample Custody Seals Intact: YES N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
13.0							

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date:	Time:	Received by: BAO	Date: 12Aug23	Time: 10:40	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY MAY 2023 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

19105

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity
	DC-REF	10-Aug-23	12:00	Water	9	X			7.73	21.1	74.9
	DC-US	10-Aug-23	12:35	Water	9	X			7.17	20.9	78.2
	DUP-02	10-Aug-23	12:35	Water	9	X			7.17	20.9	78.2
	FIELD-02	10-Aug-23	12:35	Water	9	X			N/A	N/A	N/A
	GL-TRIB	10-Aug-23	13:10	Water	9	X			7.48	21	76.6
	Travel - 01										

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
Jacob McFee	August 10 2023	6:50		AUG 14 2023			

Environmental Division
Winnipeg
Work Order Reference
WP2319115

Telephone : +1 204 255 9720

19.9°

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2319111**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2023 08:30
PO	: ----	Date Analysis Commenced	: 14-Aug-2023
C-O-C number	: ----	Issue Date	: 21-Aug-2023 15:30
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Rhovee Guevarra		Administration, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Aug-2023 10:25	10-Aug-2023 10:50	10-Aug-2023 13:25	10-Aug-2023 14:00	10-Aug-2023 14:25
						WP2319111-001	WP2319111-002	WP2319111-003	WP2319111-004	WP2319111-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.24	7.17	7.14	7.29	7.26
Temperature, field	----	EF001/WP	0.10	°C		20.9	21.4	21.8	21.4	21.3
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.8	4.2	<2.0	2.2	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		36.5	40.5	36.6	36.0	36.5
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		36.5	40.5	36.6	36.0	36.5
Conductivity	----	E100/WP	1.0	µS/cm		91.7	87.4	86.1	85.9	86.1
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		40.6	41.2	39.4	38.9	39.5
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		44.1	43.2	40.0	40.7	39.4
pH	----	E108/WP	0.10	pH units		7.53	7.65	7.64	7.70	7.71
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		76.2	61.0	70.0	73.3	69.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		4.6	7.5	1.6	1.7	1.6
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	0.014	<0.010	<0.010	<0.010
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.28	0.36	1.33	1.31	1.32
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0214	0.0298	0.0144	0.0144	0.0170
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		4.37	1.86	3.07	3.02	3.05
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0015
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Aug-2023 10:25	10-Aug-2023 10:50	10-Aug-2023 13:25	10-Aug-2023 14:00	10-Aug-2023 14:25
						WP2319111-001	WP2319111-002	WP2319111-003	WP2319111-004	WP2319111-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.9	12.4	12.6	12.8	12.6
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.130	0.343	0.0438	0.0417	0.0540
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00027	<0.00010	0.00017	0.00017	0.00016
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0101	0.00140	0.00396	0.00387	0.00378
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00893	0.0137	0.00885	0.00812	0.00856
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000065	<0.0000050	<0.0000050	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.6	12.4	11.4	11.6	11.0
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000017	0.000054	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00032	0.00060	0.00019	0.00015	0.00024
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00060	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00011	0.00014	<0.00010	<0.00010	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00139	0.00132	0.00110	0.00113	0.00119
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.150	0.300	0.050	0.043	0.060
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000066	0.000131	<0.000050	<0.000050	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0016	0.0011	<0.0010	0.0011	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.08	2.98	2.81	2.86	2.89
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0168	0.0190	0.00464	0.00395	0.0102
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000274	0.000260	0.000242	0.000231	0.000228
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00118	0.00065	0.00077	0.00074	0.00081
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.03	1.09	1.00	1.00	1.02
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00200	0.00283	0.00174	0.00175	0.00168

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Aug-2023 10:25	10-Aug-2023 10:50	10-Aug-2023 13:25	10-Aug-2023 14:00	10-Aug-2023 14:25
						WP2319111-001	WP2319111-002	WP2319111-003	WP2319111-004	WP2319111-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000101	0.000097	0.000096	0.000095	0.000084
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.07	2.09	1.46	1.42	1.56
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.32	1.32	1.69	1.72	1.80
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0300	0.0257	0.0250	0.0246	0.0246
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.56	0.62	1.05	1.02	1.00
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00568	0.0111	0.00128	0.00105	0.00182
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000136	0.000092	0.000083	0.000090	0.000090
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00081	0.00106	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00022	<0.00020	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0225	0.0629	0.0137	0.0115	0.0120
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00027	<0.00010	0.00016	0.00016	0.00016
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00924	0.00121	0.00369	0.00368	0.00364
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00852	0.0118	0.00908	0.00902	0.00909
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.8	12.3	11.6	11.4	11.5
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00014	0.00014	0.00012	0.00013	0.00014
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Aug-2023 10:25	10-Aug-2023 10:50	10-Aug-2023 13:25	10-Aug-2023 14:00	10-Aug-2023 14:25
						WP2319111-001	WP2319111-002	WP2319111-003	WP2319111-004	WP2319111-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00118	0.00105	0.00103	0.00101	0.00104
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.032	0.045	0.022	0.019	0.019
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.71	2.55	2.53	2.54	2.63
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00128	0.00152	0.00141	0.00076	0.00154
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000246	0.000299	0.000204	0.000203	0.000205
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00091	<0.00050	0.00070	0.00068	0.00070
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.949	0.983	0.957	0.960	0.982
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00171	0.00230	0.00171	0.00169	0.00171
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000105	0.000087	0.000086	0.000061	0.000102
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.64	1.47	1.31	1.26	1.41
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.03	1.15	1.60	1.56	1.60
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0303	0.0235	0.0255	0.0252	0.0263
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.43	0.73	1.05	1.10	1.11
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00060	0.00168	0.00033	<0.00030	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000140	0.000083	0.000090	0.000091	0.000088
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00057	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Aug-2023 10:25	10-Aug-2023 10:50	10-Aug-2023 13:25	10-Aug-2023 14:00	10-Aug-2023 14:25
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319111-001	WP2319111-002	WP2319111-003	WP2319111-004	WP2319111-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
				Client sampling date / time	10-Aug-2023 09:50	10-Aug-2023 10:10	10-Aug-2023 16:05	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2319111-006	WP2319111-007	WP2319111-008	--------	--------
					Result	Result	Result	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.77	7.57	8.16	----	----
Temperature, field	----	EF001/WP	0.10	°C	21.2	21.0	22.0	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	2.2	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	33.6	36.9	34.4	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	33.6	36.9	34.4	----	----
Conductivity	----	E100/WP	1.0	µS/cm	88.6	93.9	89.5	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	38.8	41.9	38.5	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	39.9	41.1	40.9	----	----
pH	----	E108/WP	0.10	pH units	7.60	7.60	7.63	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	66.9	78.9	75.7	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	5.0	4.7	15.2	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	<0.010	0.016	<0.010	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	2.40	2.36	2.31	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0260	0.0308	0.0413	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	4.58	4.46	4.60	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
					Client sampling date / time	10-Aug-2023 09:50	10-Aug-2023 10:10	10-Aug-2023 16:05	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319111-006	WP2319111-007	WP2319111-008	--------	--------
						Result	Result	Result	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		13.0	13.7	13.6	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.142	0.123	0.288	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00029	0.00028	0.00029	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0110	0.0107	0.0134	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00830	0.00864	0.00973	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000080	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.2	11.4	11.3	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000018	0.000016	0.000038	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00036	0.00033	0.00067	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00067	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00012	0.00012	0.00023	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00144	0.00140	0.00164	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.150	0.146	0.326	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000071	0.000070	0.000160	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0014	0.0014	0.0015	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.90	3.08	3.09	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0154	0.0170	0.0228	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000217	0.000273	0.000240	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00121	0.00119	0.00154	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.031	0.036	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.02	1.01	1.09	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00192	0.00193	0.00245	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000097	0.000094	0.000120	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.09	1.91	2.40	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
					Client sampling date / time	10-Aug-2023 09:50	10-Aug-2023 10:10	10-Aug-2023 16:05	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319111-006	WP2319111-007	WP2319111-008	--------	--------
						Result	Result	Result	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.35	2.34	2.38	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0301	0.0312	0.0304	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.63	1.41	1.52	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00627	0.00552	0.0140	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000140	0.000143	0.000181	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00077	0.00076	0.00118	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	0.00025	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0195	0.0182	0.0249	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00029	0.00028	0.00029	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.0104	0.0104	0.0127	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00782	0.00855	0.00784	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.5	12.1	11.4	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00019	0.00011	0.00012	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00116	0.00120	0.00119	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.021	0.029	0.027	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	CR-REF	----	----
					Client sampling date / time	10-Aug-2023 09:50	10-Aug-2023 10:10	10-Aug-2023 16:05	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319111-006	WP2319111-007	WP2319111-008	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0012	0.0013	0.0012	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.45	2.84	2.44	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00061	0.00116	0.00481	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000230	0.000263	0.000236	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00095	0.00096	0.00101	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.928	0.975	0.928	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00174	0.00174	0.00167	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000095	0.000094	0.000100	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.65	1.70	1.78	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.01	2.17	2.02	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0298	0.0314	0.0305	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.51	1.58	1.76	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00040	0.00051	0.00063	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000128	0.000136	0.000156	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00055	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0011	0.0018	<0.0010	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2319111**	Page	: 1 of 33
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2023 08:30
PO	: ----	Issue Date	: 21-Aug-2023 15:29
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Total Metals	QC-MRG3-1087237 002	----	Magnesium, total	7439-95-4	E420	122 % MES	80.0-120%	Recovery greater than upper control limit
Total Metals	QC-MRG3-1087237 002	----	Silicon, total	7440-21-3	E420	124 % MES	80.0-120%	Recovery greater than upper control limit
Total Metals	QC-MRG3-1087237 002	----	Uranium, total	7440-61-1	E420	121 % MES	80.0-120%	Recovery greater than upper control limit
Total Metals	QC-MRG5-1087265 002	----	Uranium, total	7440-61-1	E420	122 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Recoveries								
Dissolved Metals	Anonymous	Anonymous	Silver, dissolved	7440-22-4	E421	53.7 % MS-Ag	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
MS-Ag	*MS-Ag: Matrix Spike recovery for silver was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Silver was not detected. Reported result (< LOR) is reliable*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-DS	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-FDP	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-REF	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) PL-01	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) PL-02	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) PL-03	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) PL-04	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) PL-05	E303	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-01	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-02	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-05	E235.Cl-L	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-DS	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-FDP	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-01	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-02	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-03	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-04	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-05	E235.NO3-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-DS	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-01	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-02	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-05	E235.NO2-L	10-Aug-2023	14-Aug-2023	7 days	4 days	✓	14-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-01	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-02	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-03	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-04	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-05	E235.SO4	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-01	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-02	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-03	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-04	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-05	E372-U	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E339-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E333-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E336-L	10-Aug-2023	18-Aug-2023	14 days	8 days	✓	20-Aug-2023	14 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-01	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-02	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-03	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-04	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-05	E421.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-01	E509	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	16-Aug-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-DS	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-02	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-03	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-04	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-05	E509	10-Aug-2023	18-Aug-2023	28 days	8 days	✓	18-Aug-2023	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-01	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-02	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-03	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-04	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-05	E421	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-01	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-02	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-03	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-04	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-05	E421.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-DS	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-FDP	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-01	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-02	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-03	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-04	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-05	EF001	10-Aug-2023	----	----	----		14-Aug-2023	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-DS	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-01	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-02	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-03	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-04	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-05	E358-L	10-Aug-2023	16-Aug-2023	28 days	6 days	✓	17-Aug-2023	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-DS	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-01	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE PL-02	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-03	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-04	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-05	E283	10-Aug-2023	16-Aug-2023	14 days	6 days	✓	17-Aug-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-01	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-02	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-03	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-04	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-05	E290	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-01	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-02	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-03	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-04	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-05	E100	10-Aug-2023	14-Aug-2023	28 days	4 days	✓	14-Aug-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-01	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-02	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-03	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-04	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-05	E108	10-Aug-2023	14-Aug-2023	14 days	4 days	✓	14-Aug-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-01	E162-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-02	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-03	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-04	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-05	E162-L	10-Aug-2023	----	----	----		16-Aug-2023	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-01	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-02	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-03	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-04	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-05	E160-L	10-Aug-2023	----	----	----		15-Aug-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-01	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-02	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-03	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-04	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-05	E420.Cr-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-01	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-02	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-03	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-04	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-05	E508	10-Aug-2023	17-Aug-2023	28 days	7 days	✓	17-Aug-2023	28 days	7 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-01	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-02	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-03	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-04	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-05	E420	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-01	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-02	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-03	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-04	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-05	E420.P-L	10-Aug-2023	16-Aug-2023	180 days	6 days	✓	16-Aug-2023	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1088078	2	37	5.4	5.0	✓
Alkalinity Species by Titration	E290	1083913	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	1083900	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1084356	1	15	6.6	5.0	✓
Conductivity in Water	E100	1083914	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1087170	0	14	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1087631	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1087169	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087214	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1087171	0	14	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1092434	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1084357	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1084358	1	15	6.6	5.0	✓
pH by Meter	E108	1083912	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1084355	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1084338	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1087238	1	21	4.7	5.0	✗
Total Cyanide (Low Level)	E333-L	1092432	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1089653	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1087237	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088396	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1087239	1	14	7.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1084297	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092433	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1088078	2	37	5.4	5.0	✓
Alkalinity Species by Titration	E290	1083913	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	1083900	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1084356	1	15	6.6	5.0	✓
Conductivity in Water	E100	1083914	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1087170	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1087631	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1087169	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087214	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1087171	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1092434	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1084357	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1084358	1	15	6.6	5.0	✓
pH by Meter	E108	1083912	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1084355	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1084338	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1087238	2	21	9.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1092432	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1089653	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1087237	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088396	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1087239	2	14	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1084297	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092433	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1088078	2	37	5.4	5.0	✓
Alkalinity Species by Titration	E290	1083913	1	17	5.8	5.0	✓
Ammonia in Water by Colour	E303	1083900	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1084356	1	15	6.6	5.0	✓
Conductivity in Water	E100	1083914	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1087170	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1087631	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1087169	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087214	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1087171	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1092434	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1084357	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1084358	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1084355	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1084338	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1087238	2	21	9.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1092432	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1089653	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1087237	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088396	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1087239	2	14	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1084297	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092433	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1083900	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1084356	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1087170	0	14	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1087631	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1087169	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087214	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1087171	0	14	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1092434	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1084357	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1084358	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1084355	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1087238	1	21	4.7	5.0	×
Total Cyanide (Low Level)	E333-L	1092432	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1089653	1	20	5.0	5.0	✓
Total metals in Water by CRC ICPMS	E420	1087237	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088396	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1087239	1	14	7.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092433	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2319111**	Page	: 1 of 24
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2023 08:30
PO	: ----	Date Analysis Commenced	: 14-Aug-2023
C-O-C number	: ----	Issue Date	: 21-Aug-2023 15:30
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Adrienne Tarr		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Administration, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1083912)											
WP2319025-012	Anonymous	pH	----	E108	0.10	pH units	5.18	5.19	0.193%	4%	----
Physical Tests (QC Lot: 1083913)											
WP2319025-012	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1083914)											
WP2319025-012	Anonymous	Conductivity	----	E100	1.0	µS/cm	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1084297)											
WP2319103-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	4.6	4.8	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1084338)											
WP2319111-001	PL-01	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	76.2	78.6	2.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1086396)											
WP2319100-003	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	105	95.0	10.3%	20%	----
Physical Tests (QC Lot: 1088078)											
HA2300513-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	6.0	5.9	0.08	Diff <2x LOR	----
Physical Tests (QC Lot: 1088079)											
WP2319111-002	PL-02	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.2	3.9	0.3	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1083900)											
WP2319094-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.100	mg/L	0.838	0.819	0.019	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1084355)											
WP2319103-013	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	45.8	45.8	0.163%	20%	----
Anions and Nutrients (QC Lot: 1084356)											
WP2319103-013	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	12.5	12.5	0.173%	20%	----
Anions and Nutrients (QC Lot: 1084357)											
WP2319103-013	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1084358)											
WP2319103-013	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1088396)											
WP2318990-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	6.54	6.69	2.20%	20%	----
Cyanides (QC Lot: 1092432)											
WP2319111-001	PL-01	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1092433)											
WP2319111-001	PL-01	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1092434)											
WP2319111-001	PL-01	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1087214)											
WP2319103-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.5	11.5	0.170%	20%	----
Total Metals (QC Lot: 1087237)											
WP2319100-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.728	0.714	1.90%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00099	0.00100	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0202	0.0207	2.10%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.000030	0.000030	0.0000007	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.014	0.013	0.0009	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	18.3	18.0	1.56%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000083	0.000082	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00117	0.00115	0.00002	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00030	0.00028	0.00002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00232	0.00225	0.00007	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.644	0.668	3.51%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000315	0.000295	0.000019	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0054	0.0051	0.0003	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	7.59	7.42	2.33%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0133	0.0136	2.77%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000314	0.000318	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00150	0.00148	0.00002	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.75	1.72	1.73%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00250	0.00257	2.91%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000101	0.000110	0.000009	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	3.40	3.43	0.875%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	5.86	5.83	0.421%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0522	0.0543	3.82%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1087237) - continued											
WP2319100-002	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	4.02	4.02	0.002	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000011	0.000010	0.0000010	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00025	0.00024	0.0000003	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0270	0.0262	2.83%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000321	0.000313	2.63%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00193	0.00185	0.00008	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00076	0.00072	0.00004	Diff <2x LOR	----
Total Metals (QC Lot: 1087265)											
WP2319111-002	PL-02	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.343	0.333	2.93%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00140	0.00141	0.673%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0137	0.0131	4.13%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000065	<0.0000050	0.0000015	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	12.4	12.8	2.38%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000054	0.000052	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00060	0.00061	0.000003	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00014	0.00014	0.000006	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00132	0.00131	0.000007	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.300	0.306	2.02%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000131	0.000134	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0011	0.0011	0.00007	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.98	2.90	2.75%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0190	0.0189	0.569%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000260	0.000252	0.000008	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00065	0.00066	0.00002	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.09	1.08	1.22%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1087265) - continued											
WP2319111-002	PL-02	Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00283	0.00278	1.80%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000097	0.000090	0.000006	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.09	2.05	1.94%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.32	1.35	2.24%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0257	0.0255	0.891%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	0.62	0.78	0.16	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0111	0.0111	0.258%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000092	0.000093	0.0000009	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00106	0.00104	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00022	0.00021	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1087266)											
WP2319111-002	PL-02	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00060	0.00061	0.000003	Diff <2x LOR	----
Total Metals (QC Lot: 1087267)											
WP2319111-002	PL-02	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1089653)											
WP2319054-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1087169)											
WP2319066-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0031	0.0030	0.0001	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00073	0.00071	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0291	0.0296	1.50%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.140	0.141	0.314%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000168	0.0000174	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	42.1	41.0	2.65%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1087169) - continued											
WP2319066-001	Anonymous	Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00852	0.00836	1.98%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000065	0.000058	0.000008	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0731	0.0724	1.03%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	97.2	95.4	1.91%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00249	0.00247	0.743%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.0177	0.0185	4.31%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00118	0.00111	0.00007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.062	0.062	0.0002	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.77	2.71	2.18%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000122	0.000134	0.000012	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.52	6.26	3.97%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	158	153	3.19%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.346	0.344	0.679%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	50.2	47.8	4.87%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00031	0.00032	0.000002	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.121	0.128	5.26%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00284	0.00279	0.00005	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0031	0.0030	0.0001	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00090	0.00092	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1087631)											
WP2318911-008	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1091860)											
WP2319111-002	PL-02	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1083913)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1083914)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1084297)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1084338)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1086396)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1088078)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1088079)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1083900)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1084355)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1084356)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1084357)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1084358)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1088396)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1092432)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1092433)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1092434)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1087214)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1087237)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1087237) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1087238)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1087239)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1087265)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1087265) - continued						
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1087266)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1087267)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1089653)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1087169)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1087169) - continued						
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1087170)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1087171)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1087631)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1091860)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1083912)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1083913)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.9	85.0	115	----
Physical Tests (QCLot: 1083914)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1084297)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1084338)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.9	85.0	115	----
Physical Tests (QCLot: 1086396)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	92.8	85.0	115	----
Physical Tests (QCLot: 1088078)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	105	85.0	115	----
Physical Tests (QCLot: 1088079)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1083900)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	97.1	85.0	115	----
Anions and Nutrients (QCLot: 1084355)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1084356)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1084357)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1084358)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1088396)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	92.5	80.0	120	----
Cyanides (QCLot: 1092432)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	98.5	80.0	120	----
Cyanides (QCLot: 1092433)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Cyanides (QCLot: 1092433) - continued									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	105	80.0	120	----
Cyanides (QCLot: 1092434)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1087214)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	105	80.0	120	----
Total Metals (QCLot: 1087237)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	115	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	115	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	112	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	113	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	114	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	117	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	119	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	111	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	114	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	110	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	111	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	114	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	110	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	112	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	111	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	110	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	# 122	80.0	120	MES
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	114	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	116	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	111	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	120	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	115	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	117	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	111	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	# 124	80.0	120	MES
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	114	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	118	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	111	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1087237) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	114	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	112	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	107	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	116	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	111	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	112	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	107	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	# 121	80.0	120	MES
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	115	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	111	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Total Metals (QCLot: 1087238)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	111	80.0	120	----
Total Metals (QCLot: 1087239)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	120	80.0	120	----
Total Metals (QCLot: 1087265)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	113	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	114	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	111	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	111	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	109	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	111	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.3	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	113	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	109	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	110	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	111	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	110	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	111	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	117	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	110	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	111	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	110	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1087265) - continued									
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	112	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	110	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	112	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	108	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	110	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	112	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	110	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	108	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	109	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	110	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	109	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	# 122	80.0	120	MES
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	112	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	110	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Total Metals (QCLot: 1087266)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	110	80.0	120	----
Total Metals (QCLot: 1087267)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	112	80.0	120	----
Total Metals (QCLot: 1089653)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1087169)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.6	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	109	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	93.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	112	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1087169) - continued									
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	99.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.3	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	110	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	87.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	105	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	99.0	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.6	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.4	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	108	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	106	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.1	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1087170)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	95.4	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	98.7	80.0	120	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1083900)										
WP2319094-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	ND mg/L	0.25 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 1084355)										
WP2319103-013	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	97.6 mg/L	100 mg/L	97.6	75.0	125	----
Anions and Nutrients (QCLot: 1084356)										
WP2319103-013	Anonymous	Chloride	16887-00-6	E235.Cl-L	99.2 mg/L	100 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1084357)										
WP2319103-013	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1084358)										
WP2319103-013	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.494 mg/L	0.5 mg/L	98.9	75.0	125	----
Anions and Nutrients (QCLot: 1088396)										
WP2318999-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.226 mg/L	0.25 mg/L	90.5	70.0	130	----
Cyanides (QCLot: 1092432)										
WP2319111-001	PL-01	Cyanide, strong acid dissociable (Total)	----	E333-L	0.237 mg/L	0.25 mg/L	94.8	75.0	125	----
Cyanides (QCLot: 1092433)										
WP2319111-001	PL-01	Cyanide, weak acid dissociable	----	E336-L	0.130 mg/L	0.125 mg/L	104	75.0	125	----
Cyanides (QCLot: 1092434)										
WP2319111-001	PL-01	Cyanide, free	----	E339-L	0.128 mg/L	0.125 mg/L	103	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1087214)										
WP2319103-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1087237)										
WP2319100-002	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00942 mg/L	0.01 mg/L	94.2	70.0	130	----
		Boron, total	7440-42-8	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00397 mg/L	0.004 mg/L	99.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1087237) - continued										
WP2319100-002	Anonymous	Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00982 mg/L	0.01 mg/L	98.2	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0388 mg/L	0.04 mg/L	97.1	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Copper, total	7440-50-8	E420	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Iron, total	7439-89-6	E420	1.93 mg/L	2 mg/L	96.3	70.0	130	----
		Lead, total	7439-92-1	E420	0.0183 mg/L	0.02 mg/L	91.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0916 mg/L	0.1 mg/L	91.6	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.3 mg/L	10 mg/L	103	70.0	130	----
		Potassium, total	7440-09-7	E420	4.01 mg/L	4 mg/L	100	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Silicon, total	7440-21-3	E420	10.6 mg/L	10 mg/L	106	70.0	130	----
		Silver, total	7440-22-4	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.5 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0390 mg/L	0.04 mg/L	97.5	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00367 mg/L	0.004 mg/L	91.8	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0190 mg/L	0.02 mg/L	95.1	70.0	130	----
		Tin, total	7440-31-5	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0185 mg/L	0.02 mg/L	92.4	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00378 mg/L	0.004 mg/L	94.6	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, total	7440-66-6	E420	0.386 mg/L	0.4 mg/L	96.4	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
Total Metals (QCLot: 1087265)										
WP2319111-002	PL-02	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1087265) - continued										
WP2319111-002	PL-02	Barium, total	7440-39-3	E420	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0400 mg/L	0.04 mg/L	100.0	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00977 mg/L	0.01 mg/L	97.7	70.0	130	----
		Boron, total	7440-42-8	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00413 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, total	7440-50-8	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Iron, total	7439-89-6	E420	2.05 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0986 mg/L	0.1 mg/L	98.6	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.2 mg/L	10 mg/L	102	70.0	130	----
		Potassium, total	7440-09-7	E420	4.22 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, total	7440-21-3	E420	10.5 mg/L	10 mg/L	105	70.0	130	----
		Silver, total	7440-22-4	E420	0.00440 mg/L	0.004 mg/L	110	70.0	130	----
		Sodium, total	7440-23-5	E420	1.96 mg/L	2 mg/L	98.2	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.3 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.418 mg/L	0.4 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1087265) - continued										
WP2319111-002	PL-02	Zirconium, total	7440-67-7	E420	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1087266)										
WP2319111-002	PL-02	Chromium, total	7440-47-3	E420.Cr-L	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1087267)										
WP2319111-002	PL-02	Phosphorus, total	7723-14-0	E420.P-L	10.2 mg/L	10 mg/L	102	70.0	130	----
Total Metals (QCLot: 1089653)										
WP2319057-001	Anonymous	Mercury, total	7439-97-6	E508	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 1087169)										
WP2319066-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.184 mg/L	0.2 mg/L	92.0	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0352 mg/L	0.04 mg/L	88.1	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00868 mg/L	0.01 mg/L	86.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00364 mg/L	0.004 mg/L	90.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00967 mg/L	0.01 mg/L	96.7	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0363 mg/L	0.04 mg/L	90.7	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0178 mg/L	0.02 mg/L	89.3	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0161 mg/L	0.02 mg/L	80.3	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.80 mg/L	2 mg/L	90.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0186 mg/L	0.02 mg/L	92.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0802 mg/L	0.1 mg/L	80.2	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0183 mg/L	0.02 mg/L	91.4	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0337 mg/L	0.04 mg/L	84.3	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.93 mg/L	10 mg/L	99.3	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.59 mg/L	4 mg/L	89.8	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0397 mg/L	0.04 mg/L	99.2	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.23 mg/L	10 mg/L	92.3	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00215 mg/L	0.004 mg/L	53.7	70.0	130	MS-Ag

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1087169) - continued										
WP2319066-001	Anonymous	Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00367 mg/L	0.004 mg/L	91.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0377 mg/L	0.04 mg/L	94.2	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0956 mg/L	0.1 mg/L	95.6	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.341 mg/L	0.4 mg/L	85.4	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1087631)										
WP2318911-009	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000989 mg/L	0.0001 mg/L	98.9	70.0	130	----
Dissolved Metals (QCLot: 1091860)										
WP2319111-003	PL-03	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Qualifiers

Qualifier	Description
MS-Ag	*MS-Ag: Matrix Spike recovery for silver was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Silver was not detected. Reported result (< LOR) is reliable*

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
1	PL-01	August 10 2023	10:25	water	9		X		7.24	20.9	86.6
2	PL-02	August 10 2023	10:50	water	9		X		7.17	21.4	83.5
3	PL-03	August 10 2023	13:25	water	9		X		7.14	21.8	82.7
4	PL-04	August 10 2023	14:00	water	9		X		7.29	21.4	81.9
5	PL-05	August 10 2023	14:25	water	9		X		7.26	21.3	81.9
6	CR-FDP	August 10 2023	9:50	water	9	X			7.77	21.2	82
7	CR-DS	August 10 2023	10:10	water	9	X			7.57	21	86.8
8	CR-REF	August 10 2023	16:05	water	9	X			8.16	22	88.4

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date: AUG 14 2023	Time: 830	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2319111

Telephone : +1 204 255 9720

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Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
1	PL-01	August 10 2023	10:25	water	9		X		7.24	20.9	86.6
2	PL-02	August 10 2023	10:50	water	9		X		7.17	21.4	83.5
3	PL-03	August 10 2023	13:25	water	9		X		7.14	21.8	82.7
4	PL-04	August 10 2023	14:00	water	9		X		7.29	21.4	81.9
5	PL-05	August 10 2023	14:25	water	9		X		7.26	21.3	81.9
6	CR-FDP	August 10 2023	9:50	water	9	X			7.77	21.2	82
7	CR-DS	August 10 2023	10:10	water	9	X			7.57	21	86.8
8	CR-REF	August 10 2023	16:05	water	9	X			8.16	22	88.4

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date: AUG 14 2023	Time: 830	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2319111

Telephone : +1 204 255 9720

19.9°

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2319515**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 16-Aug-2023 08:45
PO	: ----	Date Analysis Commenced	: 16-Aug-2023
C-O-C number	: ----	Issue Date	: 23-Aug-2023 16:59
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Justine Bergen		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Matthew Bouch		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-14	SW-14-B	SW-12B	SW-15	SW-GL02
					Client sampling date / time	13-Aug-2023 12:30	13-Aug-2023 12:45	13-Aug-2023 13:00	11-Aug-2023 10:35	11-Aug-2023 10:05
						WP2319515-001	WP2319515-002	WP2319515-003	WP2319515-004	WP2319515-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.77	7.77	7.48	7.46	7.06
Temperature, field	----	EF001/WP	0.10	°C		18.8	18.3	21.0	19.4	11.0
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	2.1	3.3	4.2	10.3
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		42.7	42.4	42.4	91.6	56.3
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		42.7	42.4	42.4	91.6	56.3
Conductivity	----	E100/WP	1.0	µS/cm		106	105	105	184	252
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		48.5	48.1	48.8	95.2	63.7
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		53.3	50.2	53.5	96.2	63.9
pH	----	E108/WP	0.10	pH units		7.67	7.68	7.54	7.74	7.19
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		85.0	75.0	82.0	140	151
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		4.5	5.3	8.8	4.6	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		3.96	4.00	4.02	0.71	41.8
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	0.0081
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	<0.0051	0.0081
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0313	0.0322	0.0380	0.0391	0.0093
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.36	0.36	0.35	1.68	1.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-14	SW-14-B	SW-12B	SW-15	SW-GL02
					Client sampling date / time	13-Aug-2023 12:30	13-Aug-2023 12:45	13-Aug-2023 13:00	11-Aug-2023 10:35	11-Aug-2023 10:05
						WP2319515-001	WP2319515-002	WP2319515-003	WP2319515-004	WP2319515-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		21.7	22.1	22.0	25.1	11.7
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0495	0.0505	0.0778	0.228	0.0335
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00328	0.00334	0.00338	0.00304	0.00186
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0127	0.0121	0.0126	0.0184	0.0146
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.011	<0.010	0.011	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000056	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		14.7	13.0	14.6	25.2	18.4
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000021	0.000060
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00025	0.00026	0.00027	0.00069	0.00205
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00069	0.00205
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00016	0.00030
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00056	0.00055	0.00061	0.00120	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.155	0.156	0.181	0.481	1.16
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000067	0.000099	0.000098	0.000127	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0025	0.0020	0.0028	0.0050	0.0030
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		4.03	4.32	4.15	8.08	4.37
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0545	0.0513	0.0534	0.0681	0.0713
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000293	0.000221	0.000288	0.000832	0.000617
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00052	<0.00050	0.00059	0.00108	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	0.042	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.44	1.46	1.48	1.44	1.15
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00169	0.00169	0.00173	0.00201	0.00224

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-14	SW-14-B	SW-12B	SW-15	SW-GL02
					Client sampling date / time	13-Aug-2023 12:30	13-Aug-2023 12:45	13-Aug-2023 13:00	11-Aug-2023 10:35	11-Aug-2023 10:05
						WP2319515-001	WP2319515-002	WP2319515-003	WP2319515-004	WP2319515-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000137	0.000124	0.000134	0.000115	0.000074
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.96	0.95	1.21	3.93	8.64
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.75	3.88	3.97	3.41	26.3
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0368	0.0369	0.0379	0.0604	0.0647
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.58	0.58	0.64	1.29	0.87
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.00150	<0.00010	0.00021	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00088	0.00101	0.00203	0.00964	0.00077
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000050	0.000058	0.000054	0.000291	0.000161
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00056	0.00126	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	0.00052	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0236	0.0232	0.0248	0.0593	0.0268
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00283	0.00282	0.00270	0.00292	0.00157
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0117	0.0111	0.0113	0.0161	0.0157
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.012	0.011	0.010	0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.8	12.7	12.7	24.6	18.8
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000058
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00016	0.00018	0.00014	0.00033	0.00016
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00027

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-14	SW-14-B	SW-12B	SW-15	SW-GL02
					Client sampling date / time	13-Aug-2023 12:30	13-Aug-2023 12:45	13-Aug-2023 13:00	11-Aug-2023 10:35	11-Aug-2023 10:05
						WP2319515-001	WP2319515-002	WP2319515-003	WP2319515-004	WP2319515-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00046	0.00045	0.00044	0.00101	0.00027
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.042	0.040	0.042	0.259	0.630
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000073	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0019	0.0020	0.0020	0.0044	0.0028
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.02	3.99	4.14	8.20	4.08
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00116	0.00074	0.00229	0.0414	0.0690
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000188	0.000190	0.000216	0.000751	0.000512
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00089	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.41	1.38	1.39	1.35	1.05
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00160	0.00169	0.00168	0.00154	0.00200
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000095	0.000084	0.000101	0.000118	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.814	0.823	0.730	3.20	7.87
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		4.08	3.90	3.64	3.24	25.6
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0319	0.0320	0.0332	0.0514	0.0592
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	1.04	0.70
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00301	0.00040
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000060	0.000057	0.000052	0.000288	0.000170
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00082	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00050	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-14	SW-14-B	SW-12B	SW-15	SW-GL02
					Client sampling date / time	13-Aug-2023 12:30	13-Aug-2023 12:45	13-Aug-2023 13:00	11-Aug-2023 10:35	11-Aug-2023 10:05
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319515-001	WP2319515-002	WP2319515-003	WP2319515-004	WP2319515-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-09	SW-10	SW-DUP03	SW-FIELD03	----
				Client sampling date / time	12-Aug-2023 13:10	12-Aug-2023 12:25	12-Aug-2023 12:25	12-Aug-2023 12:40	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2319515-006	WP2319515-007	WP2319515-008	WP2319515-009	--------
					Result	Result	Result	Result	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.92	7.07	7.07	<0.10	----
Temperature, field	----	EF001/WP	0.10	°C	19.3	19.1	19.1	<0.10	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	4.3	4.3	4.4	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	80.0	85.4	86.2	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	80.0	85.4	86.2	<1.0	----
Conductivity	----	E100/WP	1.0	µS/cm	165	171	172	<1.0	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	83.4	92.5	90.1	<0.50	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	82.5	87.6	87.6	<0.50	----
pH	----	E108/WP	0.10	pH units	7.68	7.73	7.77	5.34	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	129	135	133	<3.0	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	2.5	3.4	3.1	<1.0	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	<0.010	<0.010	0.063	<0.010	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.92	0.34	0.30	<0.10	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0143	0.0108	0.0085	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0143	0.0108	0.0085	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0362	0.0299	0.0311	<0.0020	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	1.39	0.78	0.80	<0.30	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0011	<0.0010	<0.0010	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0013	0.0010	0.0016	<0.0010	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	SW-10	SW-DUP03	SW-FIELD03	----
					Client sampling date / time	12-Aug-2023 13:10	12-Aug-2023 12:25	12-Aug-2023 12:25	12-Aug-2023 12:40	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319515-006	WP2319515-007	WP2319515-008	WP2319515-009	--------
						Result	Result	Result	Result	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		23.7	26.7	27.2	<0.50	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.198	0.221	0.226	<0.0030	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00368	0.00321	0.00334	<0.00010	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0182	0.0164	0.0162	<0.00010	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000020	0.000022	<0.000020	<0.000020	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.012	<0.010	<0.010	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		22.2	23.1	23.1	<0.050	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000013	0.000018	0.000017	<0.000010	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00056	0.0260	0.00056	<0.00010	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00056	0.0260	0.00056	<0.00050	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00022	0.00042	0.00018	<0.00010	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00151	0.00151	0.00098	0.00155	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.525	0.609	0.479	0.015	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000152	0.000126	0.000117	<0.000050	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0031	0.0039	0.0041	<0.0010	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		6.58	7.26	7.28	<0.0050	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.175	0.0930	0.0812	<0.00010	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000593	0.00402	0.000639	<0.000050	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00112	0.0108	0.00103	0.00050	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.040	0.032	0.031	<0.030	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.47	1.37	1.16	<0.050	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00201	0.00167	0.00173	<0.00020	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000158	0.000151	0.000159	<0.000050	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		4.41	4.26	3.96	<0.10	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	SW-10	SW-DUP03	SW-FIELD03	----
					Client sampling date / time	12-Aug-2023 13:10	12-Aug-2023 12:25	12-Aug-2023 12:25	12-Aug-2023 12:40	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319515-006	WP2319515-007	WP2319515-008	WP2319515-009	--------
						Result	Result	Result	Result	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.08	3.06	2.91	<0.050	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0472	0.0491	0.0493	<0.00020	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.90	0.75	1.22	<0.50	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00010	<0.00010	<0.00010	<0.00010	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00026	<0.00010	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00765	0.00858	0.00979	<0.00030	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00017	0.00014	<0.00010	<0.00010	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000268	0.000205	0.000200	<0.000010	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00140	0.00128	0.00112	<0.00050	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00048	0.00046	0.00049	<0.00020	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0949	0.0664	0.0615	<0.0010	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00351	0.00301	0.00299	<0.00010	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0168	0.0151	0.0150	<0.00010	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		22.3	24.1	23.2	<0.050	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00043	0.00033	0.00035	<0.00010	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00017	0.00012	0.00012	<0.00010	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00134	0.00084	0.00084	<0.00020	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.400	0.292	0.285	<0.010	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	SW-10	SW-DUP03	SW-FIELD03	----
					Client sampling date / time	12-Aug-2023 13:10	12-Aug-2023 12:25	12-Aug-2023 12:25	12-Aug-2023 12:40	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319515-006	WP2319515-007	WP2319515-008	WP2319515-009	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000120	0.000075	0.000073	<0.000050	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0032	0.0043	0.0041	<0.0010	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		6.73	7.85	7.82	<0.0050	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.142	0.0710	0.0685	<0.00010	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000524	0.000600	0.000628	<0.000050	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00106	0.00084	0.00086	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.32	1.14	1.12	<0.050	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00169	0.00138	0.00132	<0.00020	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000107	0.000112	0.000118	<0.000050	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.99	3.46	3.40	<0.050	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.98	2.96	3.00	<0.050	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0493	0.0473	0.0500	<0.00020	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.73	0.58	0.53	<0.50	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00011	<0.00010	<0.00010	<0.00010	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00473	0.00325	0.00289	<0.00030	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00014	<0.00010	<0.00010	<0.00010	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000262	0.000198	0.000197	<0.000010	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00114	0.00072	0.00065	<0.00050	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00067	0.00048	0.00053	<0.00030	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2319515**	Page	: 1 of 35
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 16-Aug-2023 08:45
PO	: ----	Issue Date	: 23-Aug-2023 16:55
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-12B	E303	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-14	E303	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-14-B	E303	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-09	E303	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-10	E303	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-DUP03	E303	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-FIELD03	E303	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
SW-15	E303	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	16-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
SW-GL02	E303	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	16-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-12B	E235.Cl-L	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-14	E235.Cl-L	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-14-B	E235.Cl-L	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.Cl-L	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-10	E235.Cl-L	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP03	E235.Cl-L	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-FIELD03	E235.Cl-L	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-15	E235.Cl-L	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	16-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL02	E235.Cl-L	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	16-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-12B	E235.NO3-L	13-Aug-2023	16-Aug-2023	7 days	3 days	✓	16-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-14	E235.NO3-L	13-Aug-2023	16-Aug-2023	7 days	3 days	✓	16-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-14-B	E235.NO3-L	13-Aug-2023	16-Aug-2023	7 days	3 days	✓	16-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO3-L	12-Aug-2023	16-Aug-2023	7 days	4 days	✓	16-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.NO3-L	12-Aug-2023	16-Aug-2023	7 days	4 days	✓	16-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP03	E235.NO3-L	12-Aug-2023	16-Aug-2023	7 days	4 days	✓	16-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD03	E235.NO3-L	12-Aug-2023	16-Aug-2023	7 days	4 days	✓	16-Aug-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-15	E235.NO3-L	11-Aug-2023	16-Aug-2023	7 days	5 days	✓	16-Aug-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL02	E235.NO3-L	11-Aug-2023	16-Aug-2023	7 days	5 days	✓	16-Aug-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-12B	E235.NO2-L	13-Aug-2023	16-Aug-2023	7 days	3 days	✓	16-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-14	E235.NO2-L	13-Aug-2023	16-Aug-2023	7 days	3 days	✓	16-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-14-B	E235.NO2-L	13-Aug-2023	16-Aug-2023	7 days	3 days	✓	16-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.NO2-L	12-Aug-2023	16-Aug-2023	7 days	4 days	✓	16-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-10	E235.NO2-L	12-Aug-2023	16-Aug-2023	7 days	4 days	✓	16-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP03	E235.NO2-L	12-Aug-2023	16-Aug-2023	7 days	4 days	✓	16-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-FIELD03	E235.NO2-L	12-Aug-2023	16-Aug-2023	7 days	4 days	✓	16-Aug-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-15	E235.NO2-L	11-Aug-2023	16-Aug-2023	7 days	5 days	✓	16-Aug-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL02	E235.NO2-L	11-Aug-2023	16-Aug-2023	7 days	5 days	✓	16-Aug-2023	7 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-12B	E235.SO4	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-14	E235.SO4	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-14-B	E235.SO4	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-09	E235.SO4	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-10	E235.SO4	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-DUP03	E235.SO4	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-FIELD03	E235.SO4	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-15	E235.SO4	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	16-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL02	E235.SO4	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	16-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-12B	E372-U	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	17-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-14	E372-U	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	17-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-14-B	E372-U	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	17-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-09	E372-U	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	17-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-10	E372-U	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	17-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-DUP03	E372-U	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	17-Aug-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-FIELD03	E372-U	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	17-Aug-2023	28 days	5 days	✓

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Amber glass total (sulfuric acid)										
SW-15	E372-U	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	17-Aug-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL02	E372-U	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	17-Aug-2023	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12B	E339-L	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	21-Aug-2023	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E339-L	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	21-Aug-2023	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E339-L	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	21-Aug-2023	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E339-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP03	E339-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD03	E339-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓

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Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E339-L	11-Aug-2023	18-Aug-2023	14 days	7 days	✓	21-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	11-Aug-2023	18-Aug-2023	14 days	7 days	✓	21-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12B	E333-L	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	21-Aug-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E333-L	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	21-Aug-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E333-L	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	21-Aug-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E333-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP03	E333-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD03	E333-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E333-L	11-Aug-2023	18-Aug-2023	14 days	7 days	✓	21-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	11-Aug-2023	18-Aug-2023	14 days	7 days	✓	21-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12B	E336-L	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	21-Aug-2023	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E336-L	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	21-Aug-2023	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
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Cyanides : WAD Cyanide (Low Level)										
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Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
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Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD03	E336-L	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	21-Aug-2023	14 days	9 days	✓

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Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E336-L	11-Aug-2023	18-Aug-2023	14 days	7 days	✓	21-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E336-L	11-Aug-2023	18-Aug-2023	14 days	7 days	✓	21-Aug-2023	14 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-12B	E421.Cr-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-14	E421.Cr-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-14-B	E421.Cr-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-10	E421.Cr-L	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP03	E421.Cr-L	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-FIELD03	E421.Cr-L	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-15	E421.Cr-L	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.Cr-L	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-15	E509	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL02	E509	11-Aug-2023	21-Aug-2023	28 days	10 days	✓	21-Aug-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-12B	E509	13-Aug-2023	21-Aug-2023	28 days	8 days	✓	21-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-14	E509	13-Aug-2023	21-Aug-2023	28 days	8 days	✓	21-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-14-B	E509	13-Aug-2023	21-Aug-2023	28 days	8 days	✓	21-Aug-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-09	E509	12-Aug-2023	21-Aug-2023	28 days	9 days	✓	21-Aug-2023	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-10	E509	12-Aug-2023	21-Aug-2023	28 days	9 days	✓	21-Aug-2023	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-DUP03	E509	12-Aug-2023	21-Aug-2023	28 days	9 days	✓	21-Aug-2023	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-FIELD03	E509	12-Aug-2023	21-Aug-2023	28 days	9 days	✓	21-Aug-2023	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-12B	E421	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-14	E421	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-14-B	E421	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-09	E421	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-10	E421	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-DUP03	E421	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-FIELD03	E421	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-15	E421	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL02	E421	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-12B	E421.P-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-14	E421.P-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-14-B	E421.P-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-09	E421.P-L	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-10	E421.P-L	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-DUP03	E421.P-L	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-FIELD03	E421.P-L	12-Aug-2023	17-Aug-2023	180 days	5 days	✓	17-Aug-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-15	E421.P-L	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.P-L	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-09	EF001	12-Aug-2023	----	----	----		22-Aug-2023	----	10 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-10	EF001	12-Aug-2023	----	----	----		22-Aug-2023	----	10 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-DUP03	EF001	12-Aug-2023	----	----	----		22-Aug-2023	----	10 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-FIELD03	EF001	12-Aug-2023	----	----	----		22-Aug-2023	----	10 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-15	EF001	11-Aug-2023	----	----	----		22-Aug-2023	----	11 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL02	EF001	11-Aug-2023	----	----	----		22-Aug-2023	----	11 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-12B	EF001	13-Aug-2023	----	----	----		22-Aug-2023	----	9 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-14	EF001	13-Aug-2023	----	----	----		22-Aug-2023	----	9 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-14-B	EF001	13-Aug-2023	----	----	----		22-Aug-2023	----	9 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-12B	E358-L	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	17-Aug-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-14	E358-L	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	17-Aug-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-14-B	E358-L	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	17-Aug-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-09	E358-L	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	17-Aug-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-10	E358-L	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	17-Aug-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-DUP03	E358-L	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	17-Aug-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-FIELD03	E358-L	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	17-Aug-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-15	E358-L	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	17-Aug-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL02	E358-L	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	17-Aug-2023	28 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-12B	E283	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	18-Aug-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-14	E283	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	18-Aug-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-14-B	E283	13-Aug-2023	18-Aug-2023	14 days	5 days	✓	18-Aug-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-09	E283	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	18-Aug-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-10	E283	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	18-Aug-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-DUP03	E283	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	18-Aug-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-FIELD03	E283	12-Aug-2023	18-Aug-2023	14 days	6 days	✓	18-Aug-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE										
SW-15	E283	11-Aug-2023	18-Aug-2023	14 days	7 days	✓	18-Aug-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-GL02	E283	11-Aug-2023	18-Aug-2023	14 days	7 days	✓	18-Aug-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-12B	E290	13-Aug-2023	16-Aug-2023	14 days	3 days	✓	16-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-14	E290	13-Aug-2023	16-Aug-2023	14 days	3 days	✓	16-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-14-B	E290	13-Aug-2023	16-Aug-2023	14 days	3 days	✓	16-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-09	E290	12-Aug-2023	16-Aug-2023	14 days	4 days	✓	16-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-10	E290	12-Aug-2023	16-Aug-2023	14 days	4 days	✓	16-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-DUP03	E290	12-Aug-2023	16-Aug-2023	14 days	4 days	✓	16-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-FIELD03	E290	12-Aug-2023	16-Aug-2023	14 days	4 days	✓	16-Aug-2023	14 days	4 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-15	E290	11-Aug-2023	16-Aug-2023	14 days	5 days	✓	16-Aug-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL02	E290	11-Aug-2023	16-Aug-2023	14 days	5 days	✓	16-Aug-2023	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-12B	E100	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-14	E100	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-14-B	E100	13-Aug-2023	16-Aug-2023	28 days	3 days	✓	16-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-10	E100	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP03	E100	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELD03	E100	12-Aug-2023	16-Aug-2023	28 days	4 days	✓	16-Aug-2023	28 days	4 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-15	E100	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	16-Aug-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL02	E100	11-Aug-2023	16-Aug-2023	28 days	5 days	✓	16-Aug-2023	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-12B	E108	13-Aug-2023	16-Aug-2023	14 days	3 days	✓	16-Aug-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-14	E108	13-Aug-2023	16-Aug-2023	14 days	3 days	✓	16-Aug-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-14-B	E108	13-Aug-2023	16-Aug-2023	14 days	3 days	✓	16-Aug-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	12-Aug-2023	16-Aug-2023	14 days	4 days	✓	16-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-10	E108	12-Aug-2023	16-Aug-2023	14 days	4 days	✓	16-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP03	E108	12-Aug-2023	16-Aug-2023	14 days	4 days	✓	16-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELD03	E108	12-Aug-2023	16-Aug-2023	14 days	4 days	✓	16-Aug-2023	14 days	4 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP]										
SW-15	E108	11-Aug-2023	16-Aug-2023	14 days	5 days	✓	16-Aug-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
SW-GL02	E108	11-Aug-2023	16-Aug-2023	14 days	5 days	✓	16-Aug-2023	14 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-12B	E162-L	13-Aug-2023	----	----	----		17-Aug-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-14	E162-L	13-Aug-2023	----	----	----		17-Aug-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-14-B	E162-L	13-Aug-2023	----	----	----		17-Aug-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-09	E162-L	12-Aug-2023	----	----	----		17-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-10	E162-L	12-Aug-2023	----	----	----		17-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-DUP03	E162-L	12-Aug-2023	----	----	----		17-Aug-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-FIELD03	E162-L	12-Aug-2023	----	----	----		17-Aug-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-15	E162-L	11-Aug-2023	----	----	----		17-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL02	E162-L	11-Aug-2023	----	----	----		17-Aug-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-12B	E160-L	13-Aug-2023	----	----	----		17-Aug-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14	E160-L	13-Aug-2023	----	----	----		17-Aug-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14-B	E160-L	13-Aug-2023	----	----	----		17-Aug-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	12-Aug-2023	----	----	----		17-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-10	E160-L	12-Aug-2023	----	----	----		17-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP03	E160-L	12-Aug-2023	----	----	----		17-Aug-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELD03	E160-L	12-Aug-2023	----	----	----		17-Aug-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-15	E160-L	11-Aug-2023	----	----	----		17-Aug-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL02	E160-L	11-Aug-2023	----	----	----		17-Aug-2023	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-12B	E420.Cr-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14	E420.Cr-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14-B	E420.Cr-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-10	E420.Cr-L	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-15	E420.Cr-L	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP03	E420.Cr-L	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD03	E420.Cr-L	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-12B	E508	13-Aug-2023	18-Aug-2023	28 days	5 days	✓	18-Aug-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14	E508	13-Aug-2023	18-Aug-2023	28 days	5 days	✓	18-Aug-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14-B	E508	13-Aug-2023	18-Aug-2023	28 days	5 days	✓	18-Aug-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	12-Aug-2023	18-Aug-2023	28 days	6 days	✓	18-Aug-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-10	E508	12-Aug-2023	18-Aug-2023	28 days	6 days	✓	18-Aug-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP03	E508	12-Aug-2023	18-Aug-2023	28 days	6 days	✓	18-Aug-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELD03	E508	12-Aug-2023	18-Aug-2023	28 days	6 days	✓	18-Aug-2023	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-15	E508	11-Aug-2023	18-Aug-2023	28 days	7 days	✓	18-Aug-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-GL02	E508	11-Aug-2023	18-Aug-2023	28 days	7 days	✓	18-Aug-2023	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-12B	E420	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-14	E420	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-14-B	E420	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-09	E420	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-10	E420	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-15	E420	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-DUP03	E420	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD03	E420	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-12B	E420.P-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14	E420.P-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14-B	E420.P-L	13-Aug-2023	17-Aug-2023	180 days	4 days	✓	17-Aug-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-10	E420.P-L	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-15	E420.P-L	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP03	E420.P-L	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-FIELD03	E420.P-L	12-Aug-2023	18-Aug-2023	180 days	6 days	✓	18-Aug-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL02	E420.P-L	11-Aug-2023	17-Aug-2023	180 days	6 days	✓	17-Aug-2023	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1092325	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1087779	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1087820	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1087696	1	15	6.6	5.0	✓
Conductivity in Water	E100	1087778	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1089456	0	9	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1095480	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1089455	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087946	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1089457	0	9	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1092449	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1087693	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1087694	1	18	5.5	5.0	✓
pH by Meter	E108	1087777	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1087697	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1088238	2	39	5.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1089231	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1092447	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1091857	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1089229	2	34	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088398	1	10	10.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1089232	0	17	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1088240	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092448	1	9	11.1	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1092325	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1087779	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1087820	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1087696	1	15	6.6	5.0	✓
Conductivity in Water	E100	1087778	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1089456	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1095480	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1089455	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087946	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1089457	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1092449	1	9	11.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1087693	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1087694	1	18	5.5	5.0	✓
pH by Meter	E108	1087777	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1087697	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1088238	2	39	5.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1089231	2	9	22.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1092447	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1091857	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1089229	2	34	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088398	1	10	10.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1089232	2	17	11.7	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1088240	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092448	1	9	11.1	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1092325	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1087779	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1087820	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1087696	1	15	6.6	5.0	✓
Conductivity in Water	E100	1087778	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1089456	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1095480	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1089455	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087946	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1089457	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1092449	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1087693	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1087694	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1087697	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1088238	2	39	5.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1089231	2	9	22.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1092447	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1091857	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1089229	2	34	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088398	1	10	10.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1089232	2	17	11.7	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1088240	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1092448	1	9	11.1	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1087820	2	40	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1087696	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1089456	0	9	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1095480	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1089455	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1087946	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1089457	0	9	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1092449	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1087693	1	18	5.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1087694	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1087697	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1089231	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1092447	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1091857	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1089229	2	34	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1088398	1	10	10.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1089232	0	17	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1092448	1	9	11.1	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2319515**	Page	: 1 of 23
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 16-Aug-2023 08:45
PO	: ----	Date Analysis Commenced	: 16-Aug-2023
C-O-C number	: ----	Issue Date	: 23-Aug-2023 16:55
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Justine Bergen		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Matthew Bouch		Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1087777)											
WP2319515-001	SW-14	pH	----	E108	0.10	pH units	7.67	7.67	0.00%	4%	----
Physical Tests (QC Lot: 1087778)											
WP2319515-001	SW-14	Conductivity	----	E100	1.0	µS/cm	106	105	0.475%	10%	----
Physical Tests (QC Lot: 1087779)											
WP2319515-001	SW-14	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	42.7	42.2	1.18%	20%	----
Physical Tests (QC Lot: 1088238)											
WP2319128-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	234	241	2.95%	20%	----
Physical Tests (QC Lot: 1088239)											
WP2319515-005	SW-GL02	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	151	152	0.988%	20%	----
Physical Tests (QC Lot: 1088240)											
WP2319515-001	SW-14	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	4.5	4.8	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1092325)											
WP2319515-001	SW-14	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1087693)											
WP2319503-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.308	0.310	0.611%	20%	----
Anions and Nutrients (QC Lot: 1087694)											
WP2319503-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0019	0.0018	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1087696)											
WP2319503-006	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	21.8	21.9	0.472%	20%	----
Anions and Nutrients (QC Lot: 1087697)											
WP2319503-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	57.5	58.1	0.958%	20%	----
Anions and Nutrients (QC Lot: 1087820)											
WP2319498-002	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1088398)											
WP2319346-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0400	mg/L	7.77	8.29	6.51%	20%	----
Anions and Nutrients (QC Lot: 1088571)											
WP2319515-009	SW-FIELD03	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1092447)											
WP2319515-001	SW-14	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1092448)											
WP2319515-001	SW-14	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1092449)											
WP2319515-001	SW-14	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1087946)											
WP2319515-001	SW-14	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	21.7	22.4	3.36%	20%	----
Total Metals (QC Lot: 1089229)											
WP2319329-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00448	0.00462	3.27%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0179	0.0182	2.15%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.640	0.621	2.94%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	111	106	4.79%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000011	0.000012	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00497	0.00501	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.049	0.048	0.0002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000206	0.000221	0.000014	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.128	0.143	11.2%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	54.4	51.3	5.84%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	8.02 µg/L	0.00828	3.20%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.0160	0.0152	4.88%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00074	0.00071	0.00004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	9.02	9.31	3.16%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00360	0.00373	3.60%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000069	<0.000050	0.000019	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	15.3	15.1	1.51%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	125	121	3.56%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.912	0.912	0.0523%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1089229) - continued											
WP2319329-002	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	103	100	3.30%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00013	0.00011	0.00001	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00150	0.00159	5.59%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0102	0.0110	0.0007	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1091560)											
WP2319523-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0231	0.0224	0.0007	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00015	0.00015	0.000003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00162	0.00149	8.28%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0348	0.0354	1.64%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.091	0.091	0.0002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	42.4	43.4	2.33%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0118	0.0112	4.62%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.037	0.035	0.002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000273	0.000269	0.000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0307	0.0315	2.38%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	29.3	29.1	0.711%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0106	0.0104	2.32%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00196	0.00190	3.08%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00065	0.00060	0.00004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	8.72	8.53	2.20%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1091560) - continued											
WP2319523-001	Anonymous	Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00424	0.00400	5.93%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000119	0.000105	0.000014	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.78	4.77	0.171%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000018	<0.000010	0.000008	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	175	170	2.77%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.281	0.280	0.0469%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	26.7	26.5	0.539%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00100	0.00097	0.00002	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00120	0.00120	0.655%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00136	0.00134	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0038	0.0032	0.0007	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1091857)											
WP2319267-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1089455)											
WP2319341-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00079	0.00080	0.000009	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0416	0.0430	3.26%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.067	0.066	0.0002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000065	0.0000066	0.0000002	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	90.1	92.0	2.04%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00083	0.00080	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1089455) - continued											
WP2319341-004	Anonymous	Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0604	0.0605	0.161%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	49.0	47.9	2.31%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0106	0.0109	2.72%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00109	0.00109	0.390%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00054	0.00051	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	6.10	5.98	1.99%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000682	0.000621	9.27%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	12.8	12.8	0.119%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	24.4	24.3	0.490%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.312	0.320	2.43%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	36.5	38.2	4.51%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00175	0.00191	8.84%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0049	0.0048	0.00009	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1095480)											
WP2319162-006	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1087778)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1087779)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1088238)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1088239)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1088240)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1092325)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1087693)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1087694)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1087696)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1087697)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1087820)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1088398)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1088571)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Cyanides (QCLot: 1092447)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1092448)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1092449)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1087946)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1087946) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1089229)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1089229) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1089231)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1089232)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1091558)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1091559)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1091560)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1091560) - continued						
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1091857)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1089455)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1089455) - continued						
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1089456)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1089457)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1095480)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1087777)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1087778)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1087779)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1088238)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.0	85.0	115	----
Physical Tests (QCLot: 1088239)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	91.6	85.0	115	----
Physical Tests (QCLot: 1088240)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	94.5	85.0	115	----
Physical Tests (QCLot: 1092325)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.6	85.0	115	----
Anions and Nutrients (QCLot: 1087693)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1087694)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1087696)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1087697)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1087820)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1088398)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	92.3	80.0	120	----
Anions and Nutrients (QCLot: 1088571)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	104	85.0	115	----
Cyanides (QCLot: 1092447)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	96.2	80.0	120	----
Cyanides (QCLot: 1092448)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1092448) - continued									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	104	80.0	120	----
Cyanides (QCLot: 1092449)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	106	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1087946)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Total Metals (QCLot: 1089229)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	96.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	98.4	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	94.4	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	95.5	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.1	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.0	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	106	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	88.7	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.7	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	111	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	101	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	112	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	107	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1089229) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	93.3	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	89.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	104	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.7	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	89.9	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Total Metals (QCLot: 1089231)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Total Metals (QCLot: 1089232)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Total Metals (QCLot: 1091558)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Total Metals (QCLot: 1091559)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	112	80.0	120	----
Total Metals (QCLot: 1091560)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	111	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	105	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	114	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	107	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	108	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	111	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	107	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	109	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	108	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	109	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	110	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1091560) - continued									
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	115	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	110	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	112	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	105	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	111	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	116	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	112	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	110	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	104	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	105	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	111	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.6	80.0	120	----
Total Metals (QCLot: 1091857)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1089455)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	106	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.8	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.4	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1089455) - continued									
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	98.2	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	90.2	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	98.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	100	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	96.1	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	93.8	80.0	120	----
Dissolved Metals (QCLot: 1089456)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1087693)										
WP2319503-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.61 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1087694)										
WP2319503-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.514 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1087696)										
WP2319503-006	Anonymous	Chloride	16887-00-6	E235.Cl-L	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1087697)										
WP2319503-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1087820)										
WP2319498-002	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.233 mg/L	0.25 mg/L	93.0	75.0	125	----
Anions and Nutrients (QCLot: 1088398)										
WP2319515-001	SW-14	Phosphorus, total	7723-14-0	E372-U	0.234 mg/L	0.25 mg/L	93.8	70.0	130	----
Anions and Nutrients (QCLot: 1088571)										
WP2319515-009	SW-FIELD03	Ammonia, total (as N)	7664-41-7	E303	0.225 mg/L	0.25 mg/L	90.1	75.0	125	----
Cyanides (QCLot: 1092447)										
WP2319515-001	SW-14	Cyanide, strong acid dissociable (Total)	----	E333-L	0.232 mg/L	0.25 mg/L	92.9	75.0	125	----
Cyanides (QCLot: 1092448)										
WP2319515-001	SW-14	Cyanide, weak acid dissociable	----	E336-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1092449)										
WP2319515-001	SW-14	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1087946)										
WP2319515-002	SW-14-B	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1089229)										
WP2319329-002	Anonymous	Aluminum, total	7429-90-5	E420	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	0.0174 mg/L	0.02 mg/L	87.0	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0406 mg/L	0.04 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1089229) - continued										
WP2319329-002	Anonymous	Bismuth, total	7440-69-9	E420	0.00812 mg/L	0.01 mg/L	81.2	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0111 mg/L	0.01 mg/L	111	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, total	7440-50-8	E420	0.0192 mg/L	0.02 mg/L	96.1	70.0	130	----
		Iron, total	7439-89-6	E420	2.11 mg/L	2 mg/L	106	70.0	130	----
		Lead, total	7439-92-1	E420	0.0167 mg/L	0.02 mg/L	83.4	70.0	130	----
		Lithium, total	7439-93-2	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0387 mg/L	0.04 mg/L	96.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.0 mg/L	10 mg/L	110	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0462 mg/L	0.04 mg/L	116	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00435 mg/L	0.004 mg/L	109	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00332 mg/L	0.004 mg/L	83.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Tin, total	7440-31-5	E420	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00371 mg/L	0.004 mg/L	92.7	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Zinc, total	7440-66-6	E420	0.386 mg/L	0.4 mg/L	96.5	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0462 mg/L	0.04 mg/L	115	70.0	130	----
Total Metals (QCLot: 1091560)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1091560) - continued										
WP2319523-001	Anonymous	Aluminum, total	7429-90-5	E420	0.224 mg/L	0.2 mg/L	112	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0420 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00890 mg/L	0.01 mg/L	89.0	70.0	130	----
		Boron, total	7440-42-8	E420	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00406 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0437 mg/L	0.04 mg/L	109	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Copper, total	7440-50-8	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Iron, total	7439-89-6	E420	2.05 mg/L	2 mg/L	103	70.0	130	----
		Lead, total	7439-92-1	E420	0.0182 mg/L	0.02 mg/L	90.8	70.0	130	----
		Lithium, total	7439-93-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.7 mg/L	10 mg/L	117	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0217 mg/L	0.02 mg/L	109	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0445 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, total	7440-21-3	E420	11.2 mg/L	10 mg/L	112	70.0	130	----
		Silver, total	7440-22-4	E420	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00370 mg/L	0.004 mg/L	92.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Tin, total	7440-31-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1091560) - continued										
WP2319523-001	Anonymous	Uranium, total	7440-61-1	E420	0.00395 mg/L	0.004 mg/L	98.7	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.113 mg/L	0.1 mg/L	113	70.0	130	----
		Zinc, total	7440-66-6	E420	0.401 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0433 mg/L	0.04 mg/L	108	70.0	130	----
Total Metals (QCLot: 1091857)										
WP2319267-002	Anonymous	Mercury, total	7439-97-6	E508	0.000105 mg/L	0.0001 mg/L	105	70.0	130	----
Dissolved Metals (QCLot: 1089455)										
WP2319341-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.201 mg/L	0.2 mg/L	101	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00854 mg/L	0.01 mg/L	85.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.097 mg/L	0.1 mg/L	97.3	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00389 mg/L	0.004 mg/L	97.3	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0186 mg/L	0.02 mg/L	92.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.00 mg/L	2 mg/L	100	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0975 mg/L	0.1 mg/L	97.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0372 mg/L	0.04 mg/L	93.0	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0197 mg/L	0.02 mg/L	98.3	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1089455) - continued										
WP2319341-004	Anonymous	Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00364 mg/L	0.004 mg/L	91.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0189 mg/L	0.02 mg/L	94.3	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0196 mg/L	0.02 mg/L	98.3	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00377 mg/L	0.004 mg/L	94.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.378 mg/L	0.4 mg/L	94.4	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1095480)										
WP2319515-001	SW-14	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2319515

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) R
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges ap
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surchar
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcha
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surch
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surch
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rus
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush reque holidays and for non-ro
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-14	13-Aug-23	12:30	Water	9		X		7.77	18.8	89.1
	SW-14-B	13-Aug-23	12:45	Water	9		X		7.77	18.3	88.3
	SW-12b	13-Aug-23	13:00	Water	9		X		7.48	21	94.6
	SW-15	11-Aug-23	10:35	Water	9		X		7.46	19.4	173.6
	SW-GL02	11-Aug-23	10:05	Water	9		X		7.06	11	193.2
	SW-09	12-Aug-23	13:10	Water	9	X			6.92	19.3	147.7
	SW-10	12-Aug-23	12:25	Water	9		X		7.07	19.1	150.4
	SW-DUP03	12-Aug-23	12:25	Water	9		X		7.07	19.1	150.4
	SW-FIELD03	12-Aug-23	12:40	Water	9		X				

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
Josh McFee	Aug 13 / 2023	7:30		AUG 16 2023	8:45		

18.8°C.

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2319972**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 18-Aug-2023 08:30
PO	: ----	Date Analysis Commenced	: 18-Aug-2023
C-O-C number	: ----	Issue Date	: 25-Aug-2023 13:36
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Justine Bergen		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	GW-GL-B	MW2/22 SHALLOW	MW2/22 DEEP	BH22-209
					Client sampling date / time	14-Aug-2023 09:45	14-Aug-2023 10:10	15-Aug-2023 13:25	15-Aug-2023 12:50	14-Aug-2023 14:30
						WP2319972-001	WP2319972-002	WP2319972-003	WP2319972-004	WP2319972-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.78	6.91	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		20.3	9.40	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	9.0	30.8	16.9	2.2
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		32.3	35.2	18.6	33.2	122
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		32.3	35.2	18.6	33.2	122
Conductivity	----	E100/WP	1.0	µS/cm		69.2	74.9	58.6	77.1	239
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		32.0	34.5	16.9	31.2	101
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		33.8	35.7	----	----	----
pH	----	E108/WP	0.10	pH units		7.53	6.95	6.11	6.69	7.90
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		53.8	57.8	56.1	59.4	138
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.6	6.9	34.7	7.5	376
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		<0.010	0.039	0.161	<0.010	0.031
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.19	0.22	0.59	0.30	0.38
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	1.34	0.290	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	1.34	0.290	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	0.0032	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0105	0.0356	0.0293	0.0164	0.184
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.61	0.51	1.87	2.27	4.48
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	GW-GL-B	MW2/22 SHALLOW	MW2/22 DEEP	BH22-209
					Client sampling date / time	14-Aug-2023 09:45	14-Aug-2023 10:10	15-Aug-2023 13:25	15-Aug-2023 12:50	14-Aug-2023 14:30
						WP2319972-001	WP2319972-002	WP2319972-003	WP2319972-004	WP2319972-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.1	10.7	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0070	0.0095	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00173	0.00312 RRV	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00634	0.00727	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.72	10.2	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.046	0.501 RRV	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0011	0.0011	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.32	2.48	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00963	0.126 RRV	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000102	0.000110	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.710	0.758	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00177	0.00174	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	GW-GL-B	MW2/22 SHALLOW	MW2/22 DEEP	BH22-209
					Client sampling date / time	14-Aug-2023 09:45	14-Aug-2023 10:10	15-Aug-2023 13:25	15-Aug-2023 12:50	14-Aug-2023 14:30
						WP2319972-001	WP2319972-002	WP2319972-003	WP2319972-004	WP2319972-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000056	0.000061	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.14	1.40 RRV	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.23	1.24	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0206	0.0208	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.50	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000035	0.000040	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0034	0.0042	0.0382	0.0118	0.0113
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00010	0.00016
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00177	0.00524 RRV	0.00039	0.00033	0.00034
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00630	0.00617	0.0153	0.00441	0.00736
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	0.000025	0.000044	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	0.033
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000189	0.0000071	0.0000115
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.22	9.99	4.40	7.76	26.2
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000105	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00026	0.00021	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00014	0.0387	0.00011	0.00053

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	GW-GL-B	MW2/22 SHALLOW	MW2/22 DEEP	BH22-209
					Client sampling date / time	14-Aug-2023 09:45	14-Aug-2023 10:10	15-Aug-2023 13:25	15-Aug-2023 12:50	14-Aug-2023 14:30
						WP2319972-001	WP2319972-002	WP2319972-003	WP2319972-004	WP2319972-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00022	<0.00020	0.261	0.00522	0.0340
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.012	1.52 RRV	0.197	<0.010	0.014
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0024	0.0077
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.19	2.33	1.43	2.88	8.63
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00079	0.614 RRV	0.116	0.00836	0.262
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000116	0.000131	0.000292	0.00134	0.0227
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.806	0.00377	0.00375
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.670	0.779	0.455	0.606	1.40
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00176	0.00206	0.00380	0.00050	0.00133
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000052	0.000059	<0.000050	0.000077	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.01	2.15 RRV	9.12	9.06	6.26
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000218
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.06	1.09	2.66	2.16	8.40
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0207	0.0225	0.0280	0.0186	0.116
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	0.57	0.57	1.62
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000058	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00015
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00338	0.00661	1.80
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000032	0.000039	0.000105	0.000366	0.00730
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0341	0.0026	0.0040
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	GW-GL-B	MW2/22 SHALLOW	MW2/22 DEEP	BH22-209
					Client sampling date / time	14-Aug-2023 09:45	14-Aug-2023 10:10	15-Aug-2023 13:25	15-Aug-2023 12:50	14-Aug-2023 14:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2319972-001	WP2319972-002	WP2319972-003	WP2319972-004	WP2319972-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2319972**	Page	: 1 of 22
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 18-Aug-2023 08:30
PO	: ----	Issue Date	: 25-Aug-2023 13:34
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) MW2/22 DEEP	E303	15-Aug-2023	18-Aug-2023	28 days	3 days	✓	18-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) MW2/22 SHALLOW	E303	15-Aug-2023	18-Aug-2023	28 days	3 days	✓	18-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) BH22-209	E303	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) GW-GL-B	E303	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-GL	E303	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW2/22 DEEP	E235.Cl-L	15-Aug-2023	18-Aug-2023	28 days	3 days	✓	18-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW2/22 SHALLOW	E235.Cl-L	15-Aug-2023	18-Aug-2023	28 days	3 days	✓	18-Aug-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
BH22-209	E235.Cl-L	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
GW-GL-B	E235.Cl-L	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL	E235.Cl-L	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
MW2/22 DEEP	E235.NO3-L	15-Aug-2023	18-Aug-2023	7 days	3 days	✓	18-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
MW2/22 SHALLOW	E235.NO3-L	15-Aug-2023	18-Aug-2023	7 days	3 days	✓	18-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
BH22-209	E235.NO3-L	14-Aug-2023	18-Aug-2023	7 days	4 days	✓	18-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
GW-GL-B	E235.NO3-L	14-Aug-2023	18-Aug-2023	7 days	4 days	✓	18-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL	E235.NO3-L	14-Aug-2023	18-Aug-2023	7 days	4 days	✓	18-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
MW2/22 DEEP	E235.NO2-L	15-Aug-2023	18-Aug-2023	7 days	3 days	✓	18-Aug-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] MW2/22 SHALLOW	E235.NO2-L	15-Aug-2023	18-Aug-2023	7 days	3 days	✓	18-Aug-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BH22-209	E235.NO2-L	14-Aug-2023	18-Aug-2023	7 days	4 days	✓	18-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] GW-GL-B	E235.NO2-L	14-Aug-2023	18-Aug-2023	7 days	4 days	✓	18-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	14-Aug-2023	18-Aug-2023	7 days	4 days	✓	18-Aug-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW2/22 DEEP	E235.SO4	15-Aug-2023	18-Aug-2023	28 days	3 days	✓	18-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW2/22 SHALLOW	E235.SO4	15-Aug-2023	18-Aug-2023	28 days	3 days	✓	18-Aug-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH22-209	E235.SO4	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] GW-GL-B	E235.SO4	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL	E235.SO4	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) MW2/22 DEEP	E372-U	15-Aug-2023	21-Aug-2023	28 days	6 days	✓	22-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) MW2/22 SHALLOW	E372-U	15-Aug-2023	21-Aug-2023	28 days	6 days	✓	22-Aug-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BH22-209	E372-U	14-Aug-2023	21-Aug-2023	28 days	7 days	✓	22-Aug-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GW-GL-B	E372-U	14-Aug-2023	21-Aug-2023	28 days	7 days	✓	22-Aug-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	14-Aug-2023	21-Aug-2023	28 days	7 days	✓	22-Aug-2023	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) MW2/22 DEEP	E339-L	15-Aug-2023	23-Aug-2023	14 days	8 days	✓	24-Aug-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) MW2/22 SHALLOW	E339-L	15-Aug-2023	23-Aug-2023	14 days	8 days	✓	24-Aug-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BH22-209	E339-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GW-GL-B	E339-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
MW2/22 DEEP	E333-L	15-Aug-2023	23-Aug-2023	14 days	8 days	✓	24-Aug-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
MW2/22 SHALLOW	E333-L	15-Aug-2023	23-Aug-2023	14 days	8 days	✓	24-Aug-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BH22-209	E333-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GW-GL-B	E333-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
MW2/22 DEEP	E336-L	15-Aug-2023	23-Aug-2023	14 days	8 days	✓	24-Aug-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
MW2/22 SHALLOW	E336-L	15-Aug-2023	23-Aug-2023	14 days	8 days	✓	24-Aug-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BH22-209	E336-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GW-GL-B	E336-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	24-Aug-2023	14 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
MW2/22 DEEP	E421.Cr-L	15-Aug-2023	22-Aug-2023	180 days	7 days	✓	22-Aug-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
MW2/22 SHALLOW	E421.Cr-L	15-Aug-2023	22-Aug-2023	180 days	7 days	✓	22-Aug-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BH22-209	E421.Cr-L	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GW-GL-B	E421.Cr-L	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW2/22 DEEP	E509	15-Aug-2023	25-Aug-2023	28 days	10 days	✓	25-Aug-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW2/22 SHALLOW	E509	15-Aug-2023	25-Aug-2023	28 days	10 days	✓	25-Aug-2023	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BH22-209	E509	14-Aug-2023	25-Aug-2023	28 days	11 days	✓	25-Aug-2023	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GW-GL-B	E509	14-Aug-2023	25-Aug-2023	28 days	11 days	✓	25-Aug-2023	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	14-Aug-2023	25-Aug-2023	28 days	11 days	✓	25-Aug-2023	28 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW2/22 DEEP	E421	15-Aug-2023	22-Aug-2023	180 days	7 days	✓	22-Aug-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW2/22 SHALLOW	E421	15-Aug-2023	22-Aug-2023	180 days	7 days	✓	22-Aug-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH22-209	E421	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GW-GL-B	E421	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL	E421	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
MW2/22 DEEP	E421.P-L	15-Aug-2023	22-Aug-2023	180 days	7 days	✓	22-Aug-2023	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
MW2/22 SHALLOW	E421.P-L	15-Aug-2023	22-Aug-2023	180 days	7 days	✓	22-Aug-2023	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
BH22-209	E421.P-L	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GW-GL-B	E421.P-L	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.P-L	14-Aug-2023	22-Aug-2023	180 days	8 days	✓	22-Aug-2023	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
GW-GL-B	EF001	14-Aug-2023	----	----	----		23-Aug-2023	----	9 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	14-Aug-2023	----	----	----		23-Aug-2023	----	9 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
GW-GL-B	E358-L	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE										
MW2/22 DEEP	E283	15-Aug-2023	23-Aug-2023	14 days	8 days	✓	23-Aug-2023	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE MW2/22 SHALLOW	E283	15-Aug-2023	23-Aug-2023	14 days	8 days	✓	23-Aug-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE BH22-209	E283	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	23-Aug-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE GW-GL-B	E283	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	23-Aug-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	14-Aug-2023	23-Aug-2023	14 days	9 days	✓	23-Aug-2023	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW2/22 DEEP	E290	15-Aug-2023	18-Aug-2023	14 days	3 days	✓	18-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW2/22 SHALLOW	E290	15-Aug-2023	18-Aug-2023	14 days	3 days	✓	18-Aug-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH22-209	E290	14-Aug-2023	18-Aug-2023	14 days	4 days	✓	18-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] GW-GL-B	E290	14-Aug-2023	18-Aug-2023	14 days	4 days	✓	18-Aug-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	14-Aug-2023	18-Aug-2023	14 days	4 days	✓	18-Aug-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW2/22 DEEP	E100	15-Aug-2023	18-Aug-2023	28 days	3 days	✓	18-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW2/22 SHALLOW	E100	15-Aug-2023	18-Aug-2023	28 days	3 days	✓	18-Aug-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH22-209	E100	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] GW-GL-B	E100	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	14-Aug-2023	18-Aug-2023	28 days	4 days	✓	18-Aug-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW2/22 DEEP	E108	15-Aug-2023	18-Aug-2023	14 days	3 days	✓	18-Aug-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW2/22 SHALLOW	E108	15-Aug-2023	18-Aug-2023	14 days	3 days	✓	18-Aug-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH22-209	E108	14-Aug-2023	18-Aug-2023	14 days	4 days	✓	18-Aug-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] GW-GL-B	E108	14-Aug-2023	18-Aug-2023	14 days	4 days	✓	18-Aug-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	14-Aug-2023	18-Aug-2023	14 days	4 days	✓	18-Aug-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] MW2/22 DEEP	E162-L	15-Aug-2023	----	----	----		21-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] MW2/22 SHALLOW	E162-L	15-Aug-2023	----	----	----		21-Aug-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BH22-209	E162-L	14-Aug-2023	----	----	----		21-Aug-2023	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] GW-GL-B	E162-L	14-Aug-2023	----	----	----		21-Aug-2023	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	14-Aug-2023	----	----	----		21-Aug-2023	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] MW2/22 DEEP	E160-L	15-Aug-2023	----	----	----		21-Aug-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] MW2/22 SHALLOW	E160-L	15-Aug-2023	----	----	----		21-Aug-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BH22-209	E160-L	14-Aug-2023	----	----	----		21-Aug-2023	7 days	7 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GW-GL-B	E160-L	14-Aug-2023	----	----	----		21-Aug-2023	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	14-Aug-2023	----	----	----		21-Aug-2023	7 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GW-GL-B	E420.Cr-L	14-Aug-2023	23-Aug-2023	180 days	9 days	✓	23-Aug-2023	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	14-Aug-2023	23-Aug-2023	180 days	9 days	✓	23-Aug-2023	180 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GW-GL-B	E508	14-Aug-2023	25-Aug-2023	28 days	11 days	✓	25-Aug-2023	28 days	11 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	14-Aug-2023	25-Aug-2023	28 days	11 days	✓	25-Aug-2023	28 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GW-GL-B	E420	14-Aug-2023	23-Aug-2023	180 days	9 days	✓	23-Aug-2023	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	14-Aug-2023	23-Aug-2023	180 days	9 days	✓	23-Aug-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GW-GL-B	E420.P-L	14-Aug-2023	23-Aug-2023	180 days	9 days	✓	23-Aug-2023	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL	E420.P-L	14-Aug-2023	23-Aug-2023	180 days	9 days	✓	23-Aug-2023	180 days	9 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1098772	1	5	20.0	5.0	✓
Alkalinity Species by Titration	E290	1094736	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1092750	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1092368	1	6	16.6	5.0	✓
Conductivity in Water	E100	1094735	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1096691	0	8	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1103670	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1096690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1092177	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1096692	0	8	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1100008	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1092369	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1092370	1	9	11.1	5.0	✓
pH by Meter	E108	1094734	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1092366	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1094762	2	22	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1099055	0	4	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1100006	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1103668	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1099057	1	9	11.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1095879	1	8	12.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1099056	0	4	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1094760	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1100007	1	15	6.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1098772	1	5	20.0	5.0	✓
Alkalinity Species by Titration	E290	1094736	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1092750	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1092368	1	6	16.6	5.0	✓
Conductivity in Water	E100	1094735	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1096691	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1103670	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1096690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1092177	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1096692	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1100008	1	15	6.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1092369	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1092370	1	9	11.1	5.0	✓
pH by Meter	E108	1094734	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1092366	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1094762	2	22	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1099055	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1100006	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1103668	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1099057	1	9	11.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1095879	1	8	12.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1099056	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1094760	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1100007	1	15	6.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1098772	1	5	20.0	5.0	✓
Alkalinity Species by Titration	E290	1094736	1	13	7.6	5.0	✓
Ammonia in Water by Colour	E303	1092750	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1092368	1	6	16.6	5.0	✓
Conductivity in Water	E100	1094735	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1096691	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1103670	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1096690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1092177	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1096692	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1100008	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1092369	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1092370	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1092366	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1094762	2	22	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1099055	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1100006	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1103668	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1099057	1	9	11.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1095879	1	8	12.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1099056	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1094760	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1100007	1	15	6.6	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1092750	2	23	8.7	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1092368	1	6	16.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1096691	0	8	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1103670	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1096690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1092177	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1096692	0	8	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1100008	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1092369	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1092370	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1092366	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1099055	0	4	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1100006	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1103668	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1099057	1	9	11.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1095879	1	8	12.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1099056	0	4	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1100007	1	15	6.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2319972**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 18-Aug-2023 08:30
PO	: ----	Date Analysis Commenced	: 18-Aug-2023
C-O-C number	: ----	Issue Date	: 25-Aug-2023 13:35
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Justine Bergen		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1094734)											
WP2319958-003	Anonymous	pH	----	E108	0.10	pH units	8.08	8.07	0.124%	4%	----
Physical Tests (QC Lot: 1094735)											
WP2319958-003	Anonymous	Conductivity	----	E100	2.0	µS/cm	1320	1320	0.00%	10%	----
Physical Tests (QC Lot: 1094736)											
WP2319958-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	262	262	0.382%	20%	----
Physical Tests (QC Lot: 1094760)											
WP2319841-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1094762)											
WP2319925-003	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	815	861	5.55%	20%	----
Physical Tests (QC Lot: 1094763)											
WP2319972-005	BH22-209	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	138	140	1.20%	20%	----
Physical Tests (QC Lot: 1098772)											
WP2319972-001	SW-GL	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1092366)											
WP2319972-004	MW2/22 DEEP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	2.27	2.26	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1092368)											
WP2319972-004	MW2/22 DEEP	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.30	0.29	0.01	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1092369)											
WP2319972-004	MW2/22 DEEP	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.290	0.288	0.736%	20%	----
Anions and Nutrients (QC Lot: 1092370)											
WP2319972-004	MW2/22 DEEP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1092750)											
WP2319947-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.068	0.071	0.004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1095879)											
WP2319968-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0688	0.0657	4.70%	20%	----
Anions and Nutrients (QC Lot: 1097661)											
WP2320201-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.014	0.015	0.002	Diff <2x LOR	----
Cyanides (QC Lot: 1100006)											
WP2319781-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1100007)											
WP2319781-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 1100008)											
WP2319781-001	Anonymous	Cyanide, free	----	E339-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1092177)											
WP2319823-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.86	1.62	0.24	Diff <2x LOR	----
Total Metals (QC Lot: 1099057)											
WP2319969-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0119	0.0130	0.0011	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00279	0.00285	2.10%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0130	0.0131	0.562%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.209	0.217	3.99%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000068	0.0000072	0.0000003	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	105	110	4.37%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000092	0.000088	0.000004	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00011	0.00011	0.000004	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00256	0.00261	0.00005	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.068	0.068	0.0006	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0369	0.0352	4.77%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	76.4	75.5	1.25%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.107	0.109	2.28%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00836	0.00808	3.32%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00110	0.00114	0.00004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.111	0.117	0.006	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	5.24	5.12	2.31%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00292	0.00291	0.394%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	10.2	10.1	0.946%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	88.8	86.0	3.20%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.621	0.621	0.0404%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1099057) - continued											
WP2319969-001	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	170	169	0.573%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00086	0.00094	0.00008	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00017	0.00017	0.000002	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00341	0.00329	3.50%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0204	0.0204	0.00004	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1103668)											
WP2318866-003	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1096690)											
WP2319832-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0113	0.0103	9.24%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.0101	0.00994	1.89%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.125	0.122	1.97%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0282	0.0287	1.92%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.065	0.060	0.004	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000087	0.0000090	0.0000002	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	220	213	3.37%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000074	0.000076	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00351	0.00348	0.992%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00978	0.00968	1.04%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.030	0.030	0.0002	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0369	0.0364	1.11%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	20.5	19.5	4.74%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0263	0.0249	5.19%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00349	0.00351	0.730%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.0103	0.00984	4.99%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1096690) - continued											
WP2319832-002	Anonymous	Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	22.1	21.8	1.66%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0157	0.0158	0.780%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00100	0.000835	18.2%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.67	2.56	4.05%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	76.5	74.0	3.22%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.691	0.695	0.641%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	214	209	2.57%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00016	0.00016	0.000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000176	0.000184	4.39%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0026	0.0026	0.00009	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1103670)											
WP2318866-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1094735)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1094736)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1094760)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1094762)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1094763)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1098772)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1092366)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1092368)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1092369)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1092370)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1092750)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1095879)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1097661)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Cyanides (QCLot: 1100006)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1100007)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1100008)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1092177)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1092177) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1099055)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1099056)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1099057)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1099057) - continued						
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1103668)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1096690)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1096690) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1096691)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1096692)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1103670)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1094734)									
pH	----	E108	----	pH units	7 pH units	99.7	98.0	102	----
Physical Tests (QCLot: 1094735)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1094736)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1094760)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.1	85.0	115	----
Physical Tests (QCLot: 1094762)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.7	85.0	115	----
Physical Tests (QCLot: 1094763)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.0	85.0	115	----
Physical Tests (QCLot: 1098772)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 1092366)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1092368)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1092369)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1092370)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1092750)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	100.0	85.0	115	----
Anions and Nutrients (QCLot: 1095879)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	91.2	80.0	120	----
Anions and Nutrients (QCLot: 1097661)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	98.0	85.0	115	----
Cyanides (QCLot: 1100006)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	92.0	80.0	120	----
Cyanides (QCLot: 1100007)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1100007) - continued									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	97.2	80.0	120	----
Cyanides (QCLot: 1100008)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1092177)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	105	80.0	120	----
Total Metals (QCLot: 1099055)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Total Metals (QCLot: 1099056)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Total Metals (QCLot: 1099057)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	99.9	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.6	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1099057) - continued									
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	98.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	93.6	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.6	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.9	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.9	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.5	80.0	120	----
Total Metals (QCLot: 1103668)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.9	80.0	120	----
Dissolved Metals (QCLot: 1096690)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	104	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	97.4	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.6	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.7	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1096690) - continued									
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	99.4	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.4	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	99.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	97.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	94.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.9	80.0	120	----
Dissolved Metals (QCLot: 1096691)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	99.4	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	98.0	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1092366)										
WP2319972-004	MW2/22 DEEP	Sulfate (as SO4)	14808-79-8	E235.SO4	99.6 mg/L	100 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 1092368)										
WP2319972-004	MW2/22 DEEP	Chloride	16887-00-6	E235.Cl-L	99.0 mg/L	100 mg/L	99.0	75.0	125	----
Anions and Nutrients (QCLot: 1092369)										
WP2319972-004	MW2/22 DEEP	Nitrate (as N)	14797-55-8	E235.NO3-L	2.48 mg/L	2.5 mg/L	99.3	75.0	125	----
Anions and Nutrients (QCLot: 1092370)										
WP2319972-004	MW2/22 DEEP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.492 mg/L	0.5 mg/L	98.4	75.0	125	----
Anions and Nutrients (QCLot: 1092750)										
WP2319947-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.213 mg/L	0.25 mg/L	85.1	75.0	125	----
Anions and Nutrients (QCLot: 1095879)										
WP2319968-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.260 mg/L	0.25 mg/L	104	70.0	130	----
Anions and Nutrients (QCLot: 1097661)										
WP2320201-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.228 mg/L	0.25 mg/L	91.2	75.0	125	----
Cyanides (QCLot: 1100006)										
WP2319781-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	2.30 mg/L	2.5 mg/L	92.2	75.0	125	----
Cyanides (QCLot: 1100007)										
WP2319781-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	1.25 mg/L	1.25 mg/L	99.8	75.0	125	----
Cyanides (QCLot: 1100008)										
WP2319781-001	Anonymous	Cyanide, free	----	E339-L	1.32 mg/L	1.25 mg/L	106	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1092177)										
WP2319823-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.15 mg/L	5 mg/L	103	70.0	130	----
Total Metals (QCLot: 1099057)										
WP2319969-001	Anonymous	Aluminum, total	7429-90-5	E420	0.199 mg/L	0.2 mg/L	99.7	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00958 mg/L	0.01 mg/L	95.8	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1099057) - continued										
WP2319969-001	Anonymous	Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00397 mg/L	0.004 mg/L	99.3	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00968 mg/L	0.01 mg/L	96.8	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, total	7440-50-8	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Iron, total	7439-89-6	E420	2.00 mg/L	2 mg/L	99.8	70.0	130	----
		Lead, total	7439-92-1	E420	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0974 mg/L	0.1 mg/L	97.4	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0390 mg/L	0.04 mg/L	97.4	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0456 mg/L	0.04 mg/L	114	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00382 mg/L	0.004 mg/L	95.4	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0378 mg/L	0.04 mg/L	94.5	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00380 mg/L	0.004 mg/L	95.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0418 mg/L	0.04 mg/L	105	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00395 mg/L	0.004 mg/L	98.7	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.375 mg/L	0.4 mg/L	93.7	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0397 mg/L	0.04 mg/L	99.3	70.0	130	----
Total Metals (QCLot: 1103668)										
WP2318866-005	Anonymous	Mercury, total	7439-97-6	E508	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1096690)										
WP2319832-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.197 mg/L	0.2 mg/L	98.5	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0379 mg/L	0.04 mg/L	94.9	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00892 mg/L	0.01 mg/L	89.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.079 mg/L	0.1 mg/L	79.2	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00385 mg/L	0.004 mg/L	96.3	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0182 mg/L	0.02 mg/L	91.2	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.94 mg/L	2 mg/L	96.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0918 mg/L	0.1 mg/L	91.8	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0378 mg/L	0.04 mg/L	94.5	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00386 mg/L	0.004 mg/L	96.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0450 mg/L	0.04 mg/L	112	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00377 mg/L	0.004 mg/L	94.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1096690) - continued										
WP2319832-002	Anonymous	Uranium, dissolved	7440-61-1	E421	0.00398 mg/L	0.004 mg/L	99.6	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.375 mg/L	0.4 mg/L	93.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0442 mg/L	0.04 mg/L	110	70.0	130	----
Dissolved Metals (QCLot: 1103670)										
WP2318866-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] If received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] If received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] If received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] If received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] If received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] If received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only): | **ALS Contact:** Judy Dalmaijer | **Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q	GW-3X	Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-GL	14-Aug-23	9:45	water		X			7.78	20.3	61.9
	SW-GL-B	14-Aug-23	10:10	water		X			6.91	9.4	70.6
	MW2/22 Shallow	15-Aug-23	13:25	water				X	5.03	15.4	49.6
	MW2/22 Deep	15-Aug-23	12:50	water				X	5.52	11.3	55.4
	BH22-209	14-Aug-23	14:30	water				X	7.38	8.6	165.3

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date: AUG 18 2023	Time: 8:30	Received by:	Time:

18.1°

Environmental Division
Winnipeg
Work Order Reference
WP2319972

Telephone : +1 204 255 9720

CERTIFICATE OF ANALYSIS

Work Order	: **WP2322077**	Page	: 1 of 17
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2023 09:00
PO	: ----	Date Analysis Commenced	: 06-Sep-2023
C-O-C number	: ----	Issue Date	: 22-Sep-2023 08:17
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 11		
No. of samples analysed	: 11		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-DS	CR-REF	SW-09	BLANK-01
					Client sampling date / time	02-Sep-2023 09:40	02-Sep-2023 10:25	02-Sep-2023 14:30	02-Sep-2023 12:00	02-Sep-2023 14:45
						WP2322077-001	WP2322077-002	WP2322077-003	WP2322077-004	WP2322077-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.46	7.33	8.03	7.28	----
Temperature, field	----	EF001/WP	0.10	°C		19.0	19.2	21.8	16.5	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	4.8	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		35.0	35.3	34.8	107	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		35.0	35.3	34.8	107	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		92.5	92.6	90.5	206	<1.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		43.3	43.0	41.4	105	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		39.3	43.5	37.7	104	<0.50
pH	----	E108/WP	0.10	pH units		7.56	7.60	7.68	7.71	5.40
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		57.3	70.0	68.3	140	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.0	5.6	11.9	11.8	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.048	0.059	0.037	0.012	0.013
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	0.0017	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.39	2.46	2.25	1.27	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0132	0.0078	<0.0050	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0132	0.0078	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0353	0.0113	0.0105	0.0521	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		4.34	4.29	4.31	2.04	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-DS	CR-REF	SW-09	BLANK-01
					Client sampling date / time	02-Sep-2023 09:40	02-Sep-2023 10:25	02-Sep-2023 14:30	02-Sep-2023 12:00	02-Sep-2023 14:45
						WP2322077-001	WP2322077-002	WP2322077-003	WP2322077-004	WP2322077-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.0	11.5	12.2	18.2	0.65
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.160	0.144	0.379	0.650	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00029	0.00033	0.00032	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0144	0.0140	0.0166	0.00331	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00950	0.00900	0.0119	0.0299	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000025	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000053	<0.0000050	0.0000064	0.0000070	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.1	12.6	10.2	29.1	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000022	0.000019	0.000042	0.000084	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00035	0.00034	0.00076	0.00121	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00076	0.00121	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00013	0.00012	0.00025	0.00046	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00137	0.00134	0.00189	0.00195	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.168	0.155	0.406	0.953	<0.010
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000085	0.000091	0.000222	0.000469	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	0.0026	0.0021	0.0041	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.82	2.93	2.97	7.67	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0168	0.0144	0.0234	0.293	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000231	0.000307	0.000258	0.000725	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00124	0.00125	0.00176	0.00152	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	0.037	0.044	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.01	1.02	1.15	2.22	<0.050
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00215	0.00204	0.00269	0.00345	<0.00020

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-DS	CR-REF	SW-09	BLANK-01
					Client sampling date / time	02-Sep-2023 09:40	02-Sep-2023 10:25	02-Sep-2023 14:30	02-Sep-2023 12:00	02-Sep-2023 14:45
						WP2322077-001	WP2322077-002	WP2322077-003	WP2322077-004	WP2322077-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000104	0.000132	0.000078	0.000109	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.33	2.24	2.77	4.70	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.28	2.35	2.47	3.33	<0.050
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0335	0.0354	0.0325	0.0756	<0.00020
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.61	1.71	1.64	1.03	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000011	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00017	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00662	0.00599	0.0190	0.0277	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00015	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000124	0.000130	0.000187	0.000631	<0.000010
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00087	0.00087	0.00139	0.00266	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00024	0.00032	0.00074	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0246	0.0276	0.0333	0.0811	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00031	0.00029	0.00028	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.0143	0.0137	0.0141	0.00284	<0.00010
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00811	0.00815	0.00767	0.0232	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000061	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.3	12.5	11.6	29.2	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00011	<0.00010	0.00012	0.00026	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00019	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-DS	CR-REF	SW-09	BLANK-01
					Client sampling date / time	02-Sep-2023 09:40	02-Sep-2023 10:25	02-Sep-2023 14:30	02-Sep-2023 12:00	02-Sep-2023 14:45
						WP2322077-001	WP2322077-002	WP2322077-003	WP2322077-004	WP2322077-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00121	0.00124	0.00132	0.00149	<0.00020
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.026	0.030	0.028	0.321	<0.010
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000198	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0017	0.0018	0.0031	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.06	2.86	3.03	7.84	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00131	0.00176	0.00307	0.212	<0.00010
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000220	0.000255	0.000223	0.000560	<0.000050
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00120	0.00108	0.00111	0.00097	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.11	1.06	1.05	2.23	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00189	0.00183	0.00177	0.00243	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000103	0.000072	0.000104	0.000109	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.16	2.10	2.17	3.83	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.38	2.22	2.30	3.17	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0298	0.0288	0.0290	0.0602	<0.00020
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.75	1.93	1.92	1.29	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00054	0.00078	0.00074	0.00524	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00014	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000110	0.000108	0.000176	0.000581	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00127	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00054	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-DS	CR-REF	SW-09	BLANK-01
					Client sampling date / time	02-Sep-2023 09:40	02-Sep-2023 10:25	02-Sep-2023 14:30	02-Sep-2023 12:00	02-Sep-2023 14:45
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322077-001	WP2322077-002	WP2322077-003	WP2322077-004	WP2322077-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TRAVEL-BLANK	SW-GL	SW-GL-B	DUP-01	SW-TR
					Client sampling date / time	02-Sep-2023 00:00	02-Sep-2023 10:10	02-Sep-2023 11:55	02-Sep-2023 10:15	02-Sep-2023 13:45
						WP2322077-006	WP2322077-007	WP2322077-008	WP2322077-009	WP2322077-010
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		----	7.86	7.12	7.86	4.80
Temperature, field	----	EF001/WP	0.10	°C		----	19.5	19.0	19.5	21.5
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	11.8
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	32.1	32.4	32.5	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	32.1	32.4	32.5	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		<1.0	69.3	69.1	69.0	22.7
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		<0.50	34.5	33.8	34.8	8.43
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		<0.50	32.2	33.7	32.7	7.94
pH	----	E108/WP	0.10	pH units		5.26	7.69	7.67	7.71	4.76
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		----	53.7	61.3	59.0	82.5 RRV
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		----	1.4	2.6	1.1	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.026	<0.010	0.027	0.010	0.045
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		----	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<0.10	0.18	0.17	0.18	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		<0.0020	0.0109	0.0105	0.0136	0.0395
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	0.57	0.58	0.58	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0013
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0011

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TRAVEL-BLANK	SW-GL	SW-GL-B	DUP-01	SW-TR
					Client sampling date / time	02-Sep-2023 00:00	02-Sep-2023 10:10	02-Sep-2023 11:55	02-Sep-2023 10:15	02-Sep-2023 13:45
						WP2322077-006	WP2322077-007	WP2322077-008	WP2322077-009	WP2322077-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		<0.50	9.02	9.72	10.0	40.2
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		<0.0030	0.0081	0.0094	0.0074	0.526
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00015
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		<0.00010	0.00184	0.00206	0.00197	0.00644
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		<0.00010	0.00696	0.00751	0.00759	0.00544
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	0.000024
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000173
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		<0.050	9.25	9.51	9.26	1.87
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000014
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00112
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00112
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00037
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00088
Iron, total	7439-89-6	E420/WP	0.010	mg/L		<0.010	0.070	0.094	0.071	0.770
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	0.000336
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	0.0013	0.0014	0.0012	0.0013
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		<0.0050	2.21	2.42	2.32	0.795
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		<0.00010	0.0144	0.0194	0.0153	0.0185
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		<0.000050	0.000133	0.000117	0.000113	0.000212
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00090
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	0.049
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		<0.050	0.686	0.726	0.707	<0.050
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		<0.00020	0.00184	0.00190	0.00191	0.00023
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	0.000066	<0.000050	0.000054	0.000176
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		<0.10	1.17	1.22	1.23	0.58

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TRAVEL-BLANK	SW-GL	SW-GL-B	DUP-01	SW-TR
					Client sampling date / time	02-Sep-2023 00:00	02-Sep-2023 10:10	02-Sep-2023 11:55	02-Sep-2023 10:15	02-Sep-2023 13:45
						WP2322077-006	WP2322077-007	WP2322077-008	WP2322077-009	WP2322077-010
						Result	Result	Result	Result	Result
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		<0.050	1.20	1.23	1.17	0.703
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		<0.00020	0.0250	0.0252	0.0262	0.0113
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	0.51
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00014
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	<0.00030	0.00034	<0.00030	0.00832
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		<0.000010	0.000036	0.000037	0.000040	0.000086
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00071
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	0.0046
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	0.00030
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		<0.0010	0.0023	0.0015	0.0019	0.517
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00012
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		<0.00010	0.00174	0.00183	0.00170	0.00630
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		<0.00010	0.00667	0.00699	0.00645	0.00475
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	0.000031
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000181
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		<0.050	9.86	9.58	9.98	1.94
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000011
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00097
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00097
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00035
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	0.00020	<0.00020	<0.00020	0.00073
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		<0.010	0.019	0.021	0.018	0.743

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TRAVEL-BLANK	SW-GL	SW-GL-B	DUP-01	SW-TR
					Client sampling date / time	02-Sep-2023 00:00	02-Sep-2023 10:10	02-Sep-2023 11:55	02-Sep-2023 10:15	02-Sep-2023 13:45
						WP2322077-006	WP2322077-007	WP2322077-008	WP2322077-009	WP2322077-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	0.000310
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	0.0011	0.0011	0.0013	0.0014
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		<0.0050	2.40	2.41	2.41	0.871
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		<0.00010	0.00068	0.00032	0.00054	0.0168
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		----	<0.0000050	<0.0000050	<0.0000050	0.0000070
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		<0.000050	0.000110	0.000100	0.000095	<0.000050
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00086
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		<0.050	0.733	0.732	0.716	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		<0.00020	0.00183	0.00172	0.00177	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		<0.000050	0.000054	<0.000050	0.000058	0.000147
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		<0.050	1.24	1.21	1.20	0.505
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		<0.050	1.15	1.18	1.12	0.737
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		<0.00020	0.0214	0.0212	0.0210	0.00946
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.52	<0.50	0.54	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00012
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	0.00738
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		<0.000010	0.000033	0.000032	0.000033	0.000081
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00052
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0044
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	0.00033
Dissolved mercury filtration location	----	EP509/WP	-	-		----	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-03	----	----	----	----
				Client sampling date / time	02-Sep-2023 15:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2322077-011	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.88	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	14.2	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	135	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	135	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	248	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	126	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	120	----	----	----	----
pH	----	E108/WP	0.10	pH units	8.17	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	155	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	7.4	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	<0.010	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.87	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0055	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0055	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0209	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	2.72	----	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	----	----	----	----
					Client sampling date / time	02-Sep-2023 15:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322077-011	--------	--------	--------	--------
						Result	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		4.57	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.116	----	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00182	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0154	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		36.0	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000014	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00036	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00010	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.190	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000061	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0066	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		7.20	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0207	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000833	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.042	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		2.05	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00093	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		6.22	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	----	----	----	----
					Client sampling date / time	02-Sep-2023 15:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322077-011	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.67	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0605	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.14	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00584	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.00117	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00113	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0059	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00165	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0140	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		37.4	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00012	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00036	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.059	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	----	----	----	----
					Client sampling date / time	02-Sep-2023 15:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322077-011	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0065	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		7.80	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00948	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000757	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		2.19	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00075	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000082	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.47	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.66	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0500	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.33	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00033	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.00127	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00072	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2322077**	Page	: 1 of 40
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2023 09:00
PO	: ----	Issue Date	: 22-Sep-2023 08:17
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 11		
No. of samples analysed	: 11		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) BLANK-01	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-DS	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-FDP	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) CR-REF	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-01	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-03	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-09	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
SW-GL	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
SW-GL-B	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
SW-TR	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid)										
SW-TRAVEL-BLANK	E303	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-01	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-DS	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-FDP	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-03	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL-B	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TR	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TRAVEL-BLANK	E235.Cl-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-01	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-DS	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-FDP	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-03	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL-B	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TR	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TRAVEL-BLANK	E235.NO3-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-01	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP-01	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL-BLANK	E235.NO2-L	02-Sep-2023	06-Sep-2023	7 days	4 days	✓	06-Sep-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BLANK-01	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP-01	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-03	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-09	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL-B	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-TR	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-TRAVEL-BLANK	E235.SO4	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
BLANK-01	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-DS	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-FDP	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-REF	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-01	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-03	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-09	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL-B	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TR	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TRAVEL-BLANK	E372-U	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	11-Sep-2023	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL-BLANK	E339-L	02-Sep-2023	21-Sep-2023	14 days	18 days	✗ EHT	21-Sep-2023	14 days	18 days	✗ EHT
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL-BLANK	E333-L	02-Sep-2023	21-Sep-2023	14 days	18 days	× EHT	21-Sep-2023	14 days	18 days	× EHT
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL-BLANK	E336-L	02-Sep-2023	21-Sep-2023	14 days	18 days	× EHT	21-Sep-2023	14 days	18 days	× EHT
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	02-Sep-2023	08-Sep-2023	14 days	6 days	✓	08-Sep-2023	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-01	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TR	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TRAVEL-BLANK	E421.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-01	E509	02-Sep-2023	12-Sep-2023	28 days	10 days	✓	12-Sep-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	02-Sep-2023	12-Sep-2023	28 days	10 days	✓	12-Sep-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	02-Sep-2023	12-Sep-2023	28 days	10 days	✓	12-Sep-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	02-Sep-2023	12-Sep-2023	28 days	10 days	✓	12-Sep-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	02-Sep-2023	12-Sep-2023	28 days	10 days	✓	12-Sep-2023	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) BLANK-01	E509	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-DS	E509	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK-01	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP-01	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-03	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-09	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL-B	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TR	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TRAVEL-BLANK	E421	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
BLANK-01	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-03	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-09	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TRAVEL-BLANK	E421.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-DS	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-01	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-03	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-09	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL-B	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	02-Sep-2023	----	----	----		06-Sep-2023	----	4 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK-01	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-DS	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-01	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-03	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-09	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL-B	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TRAVEL-BLANK	E358-L	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK-01	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-DS	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-FDP	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-REF	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-01	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-03	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-09	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TRAVEL-BLANK	E283	02-Sep-2023	09-Sep-2023	14 days	7 days	✓	12-Sep-2023	14 days	10 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK-01	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-01	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-03	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-09	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TRAVEL-BLANK	E290	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK-01	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-01	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TRAVEL-BLANK	E100	02-Sep-2023	06-Sep-2023	28 days	4 days	✓	06-Sep-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK-01	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-01	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TRAVEL-BLANK	E108	02-Sep-2023	06-Sep-2023	14 days	4 days	✓	06-Sep-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK-01	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-01	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK-01	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-01	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-GL	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-GL-B	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-TR	E160-L	02-Sep-2023	----	----	----		07-Sep-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
BLANK-01	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
CR-DS	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
CR-FDP	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
CR-REF	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
DUP-01	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-03	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVEL-BLANK	E420.Cr-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-01	E508	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-09	E508	02-Sep-2023	07-Sep-2023	28 days	5 days	✓	07-Sep-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
DUP-01	E508	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	08-Sep-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-03	E508	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	08-Sep-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-GL	E508	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	08-Sep-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-GL-B	E508	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	08-Sep-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-TR	E508	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	08-Sep-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-TRAVEL-BLANK	E508	02-Sep-2023	08-Sep-2023	28 days	6 days	✓	08-Sep-2023	28 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BLANK-01	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
CR-DS	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-01	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVEL-BLANK	E420	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-01	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-01	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TR	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TRAVEL-BLANK	E420.P-L	02-Sep-2023	07-Sep-2023	180 days	5 days	✓	07-Sep-2023	180 days	5 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1126530	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1120693	2	22	9.0	5.0	✓
Ammonia in Water by Colour	E303	1120970	2	37	5.4	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1122192	1	16	6.2	5.0	✓
Conductivity in Water	E100	1120695	2	20	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1122509	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1122881	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1122511	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1120911	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1122510	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1145428	2	25	8.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1122193	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1122194	1	16	6.2	5.0	✓
pH by Meter	E108	1120694	2	37	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	1122191	2	17	11.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1121396	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1122380	0	13	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1125119	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1122878	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1122379	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1125519	2	38	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1122381	0	13	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1121395	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1125117	2	25	8.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1126530	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1120693	2	22	9.0	5.0	✓
Ammonia in Water by Colour	E303	1120970	2	37	5.4	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1122192	2	16	12.5	5.0	✓
Conductivity in Water	E100	1120695	2	20	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1122509	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1122881	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1122511	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1120911	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1122510	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1145428	2	25	8.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1122193	2	16	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1122194	2	16	12.5	5.0	✓
pH by Meter	E108	1120694	2	37	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	1122191	2	17	11.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1121396	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1122380	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1125119	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1122878	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1122379	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1125519	2	38	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1122381	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1121395	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1125117	2	25	8.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1126530	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1120693	2	22	9.0	5.0	✓
Ammonia in Water by Colour	E303	1120970	2	37	5.4	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1122192	2	16	12.5	5.0	✓
Conductivity in Water	E100	1120695	2	20	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1122509	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1122881	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1122511	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1120911	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1122510	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1145428	2	25	8.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1122193	2	16	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1122194	2	16	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1122191	2	17	11.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1121396	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1122380	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1125119	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1122878	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1122379	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1125519	2	38	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1122381	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1121395	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1125117	2	25	8.0	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1120970	2	37	5.4	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1122192	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1122509	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1122881	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1122511	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1120911	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1122510	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1145428	2	25	8.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1122193	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1122194	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1122191	2	17	11.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1122380	0	13	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1125119	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1122878	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1122379	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1125519	2	38	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1122381	0	13	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1125117	2	25	8.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2322077**	Page	: 1 of 21
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2023 09:00
PO	: ----	Date Analysis Commenced	: 06-Sep-2023
C-O-C number	: ----	Issue Date	: 22-Sep-2023 08:17
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 11		
No. of samples analysed	: 11		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1120693)											
WP2322077-001	CR-FDP	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	35.0	35.1	0.285%	20%	----
Physical Tests (QC Lot: 1120694)											
WP2322077-001	CR-FDP	pH	----	E108	0.10	pH units	7.56	7.56	0.00%	4%	----
Physical Tests (QC Lot: 1120695)											
WP2322077-001	CR-FDP	Conductivity	----	E100	1.0	µS/cm	92.5	91.9	0.651%	10%	----
Physical Tests (QC Lot: 1120774)											
WP2322077-011	SW-03	pH	----	E108	0.10	pH units	8.17	8.19	0.244%	4%	----
Physical Tests (QC Lot: 1120775)											
WP2322077-011	SW-03	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	135	134	0.445%	20%	----
Physical Tests (QC Lot: 1120776)											
WP2322077-011	SW-03	Conductivity	----	E100	1.0	µS/cm	248	249	0.402%	10%	----
Physical Tests (QC Lot: 1121395)											
WP2322077-001	CR-FDP	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.0	5.2	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1121396)											
WP2322077-001	CR-FDP	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	57.3	69.3	12.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1126530)											
BF2300263-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	5.8	5.7	0.08	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1120648)											
WP2322078-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1120970)											
WP2322076-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.028	0.030	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1122191)											
WP2322079-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1122192)											
WP2322079-006	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1122193)											
WP2322079-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1122194)											
WP2322079-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1123578)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1123578) - continued											
WP2322241-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.013	0.011	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1125519)											
WP2322077-001	CR-FDP	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0353	0.0351	0.540%	20%	----
Anions and Nutrients (QC Lot: 1128997)											
WP2322479-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.444	0.443	0.340%	20%	----
Cyanides (QC Lot: 1125117)											
WP2322077-001	CR-FDP	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1125118)											
WP2322077-001	CR-FDP	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1125119)											
WP2322077-001	CR-FDP	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1145426)											
WP2322077-006	SW-TRAVEL-BLANK	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1145427)											
WP2322077-006	SW-TRAVEL-BLANK	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1145428)											
WP2322077-006	SW-TRAVEL-BLANK	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1120911)											
WP2321929-008	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	3.89	3.58	0.30	Diff <2x LOR	----
Total Metals (QC Lot: 1122379)											
WP2321936-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	0.0035	0.0005	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00041	0.00042	0.000002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00728	0.00730	0.288%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	15.9	17.4	8.71%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0245	0.0264	7.55%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1122379) - continued											
WP2321936-002	Anonymous	Iron, total	7439-89-6	E420	0.010	mg/L	0.012	0.016	0.004	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000252	0.000285	0.000033	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0014	0.0016	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.26	4.43	4.01%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00066	0.00072	0.00006	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000141	0.000141	0.0000003	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.640	0.670	4.48%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00105	0.00104	0.000007	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000063	<0.000050	0.000013	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.90	1.95	2.72%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.45	1.57	8.22%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0259	0.0253	2.15%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00379	0.00431	12.7%	20%	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000178	0.000201	12.2%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0096	0.0070	0.0027	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1122878)											
WP2321929-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1125163)											
WP2322077-006	SW-TRAVEL-BLANK	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1122509)											
WP2321825-003	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00015	0.00015	0.000002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1122510)											
WP2321825-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1122511)											
WP2321825-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0285	0.0287	0.939%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00270	0.00255	5.72%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0179	0.0184	2.97%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000094	0.0000044	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	13.1	14.3	8.49%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	0.000012	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00011	0.00010	0.000008	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00040	0.00042	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.397	0.383	3.72%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000083	0.000077	0.000006	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.99	2.82	5.91%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0498	0.0492	1.38%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000076	0.000068	0.000008	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00065	<0.00050	0.00015	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.62	1.61	0.650%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00265	0.00254	4.49%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.12	1.10	2.36%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	52.1	49.0	6.16%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0574	0.0599	4.22%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.09	2.27	0.18	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00054	0.00060	0.00007	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1122511) - continued											
WP2321825-003	Anonymous	Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000040	0.000037	0.000003	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0015	0.0018	0.0003	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1122881)											
WP2321825-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1129473)											
WP2322077-007	SW-GL	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1120693)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1120695)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1120775)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1120776)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1121395)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1121396)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1126530)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1120648)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1120649)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1120650)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1120651)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1120970)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1122191)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1122192)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1122193)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1122194)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1123578)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1123578) - continued						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1125519)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1128997)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1125117)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1125118)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1125119)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1145426)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1145427)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1145428)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1120911)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1122379)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1122379) - continued						
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1122380)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1122381)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1122878)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1125163)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1122509)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1122510)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1122510) - continued						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1122511)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1122511) - continued						
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1122881)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1129473)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1120693)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1120694)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1120695)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1120774)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1120775)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.8	85.0	115	----
Physical Tests (QCLot: 1120776)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1121395)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	94.4	85.0	115	----
Physical Tests (QCLot: 1121396)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.1	85.0	115	----
Physical Tests (QCLot: 1126530)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	106	85.0	115	----
Anions and Nutrients (QCLot: 1120648)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1120649)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1120650)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.9	90.0	110	----
Anions and Nutrients (QCLot: 1120651)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.8	90.0	110	----
Anions and Nutrients (QCLot: 1120970)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	98.3	85.0	115	----
Anions and Nutrients (QCLot: 1122191)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1122192)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.6	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1122193)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1122194)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.6	90.0	110	----
Anions and Nutrients (QCLot: 1123578)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	113	85.0	115	----
Anions and Nutrients (QCLot: 1125519)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	90.9	80.0	120	----
Anions and Nutrients (QCLot: 1128997)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.0	80.0	120	----
Cyanides (QCLot: 1125117)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	100	80.0	120	----
Cyanides (QCLot: 1125118)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1125119)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	92.0	80.0	120	----
Cyanides (QCLot: 1145426)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	94.4	80.0	120	----
Cyanides (QCLot: 1145427)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	97.5	80.0	120	----
Cyanides (QCLot: 1145428)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1120911)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	94.5	80.0	120	----
Total Metals (QCLot: 1122379)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	112	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	106	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	110	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1122379) - continued									
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	110	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	97.6	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.9	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	112	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	115	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	112	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.5	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	102	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	116	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	115	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	104	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.5	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Total Metals (QCLot: 1122380)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Total Metals (QCLot: 1122381)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	112	80.0	120	----
Total Metals (QCLot: 1122878)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	98.0	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1125163)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 1122509)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Dissolved Metals (QCLot: 1122511)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.2	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.1	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.1	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	96.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.0	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.7	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	101	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	99.5	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1122511) - continued									
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	104	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	108	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.1	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	98.2	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1120648)										
WP2322078-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1120970)										
WP2322076-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.227 mg/L	0.25 mg/L	90.7	75.0	125	----
Anions and Nutrients (QCLot: 1122191)										
WP2322079-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1122192)										
WP2322079-006	Anonymous	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1122193)										
WP2322079-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1122194)										
WP2322079-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.501 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1123578)										
WP2322241-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.249 mg/L	0.25 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1125519)										
WP2322077-002	CR-DS	Phosphorus, total	7723-14-0	E372-U	0.231 mg/L	0.25 mg/L	92.5	70.0	130	----
Anions and Nutrients (QCLot: 1128997)										
WP2322479-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	0.25 mg/L	ND	70.0	130	----
Cyanides (QCLot: 1125117)										
WP2322077-001	CR-FDP	Cyanide, weak acid dissociable	----	E336-L	0.127 mg/L	0.125 mg/L	102	75.0	125	----
Cyanides (QCLot: 1125118)										
WP2322077-001	CR-FDP	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1125119)										
WP2322077-001	CR-FDP	Cyanide, strong acid dissociable (Total)	----	E333-L	0.222 mg/L	0.25 mg/L	88.7	75.0	125	----
Cyanides (QCLot: 1145426)										
WP2322077-006	SW-TRAVEL-BLANK	Cyanide, strong acid dissociable (Total)	----	E333-L	0.239 mg/L	0.25 mg/L	95.6	75.0	125	----
Cyanides (QCLot: 1145427)										
WP2322077-006	SW-TRAVEL-BLANK	Cyanide, weak acid dissociable	----	E336-L	0.124 mg/L	0.125 mg/L	98.8	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Cyanides (QCLot: 1145428)										
WP2322077-006	SW-TRAVEL-BLANK	Cyanide, free	----	E339-L	0.125 mg/L	0.125 mg/L	100	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1120911)										
WP2321929-009	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.80 mg/L	5 mg/L	96.0	70.0	130	----
Total Metals (QCLot: 1122379)										
WP2321936-002	Anonymous	Aluminum, total	7429-90-5	E420	0.205 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Barium, total	7440-39-3	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Boron, total	7440-42-8	E420	0.096 mg/L	0.1 mg/L	96.0	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00998 mg/L	0.01 mg/L	99.8	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.04 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Lithium, total	7439-93-2	E420	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	3.96 mg/L	4 mg/L	98.9	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, total	7440-21-3	E420	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, total	7440-22-4	E420	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Sodium, total	7440-23-5	E420	1.88 mg/L	2 mg/L	93.9	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.3 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1122379) - continued										
WP2321936-002	Anonymous	Thorium, total	7440-29-1	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Tin, total	7440-31-5	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0383 mg/L	0.04 mg/L	95.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00438 mg/L	0.004 mg/L	110	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, total	7440-66-6	E420	0.391 mg/L	0.4 mg/L	97.9	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0444 mg/L	0.04 mg/L	111	70.0	130	----
Total Metals (QCLot: 1122878)										
WP2321929-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000979 mg/L	0.0001 mg/L	97.9	70.0	130	----
Total Metals (QCLot: 1125163)										
WP2322077-007	SW-GL	Mercury, total	7439-97-6	E508	0.0000981 mg/L	0.0001 mg/L	98.1	70.0	130	----
Dissolved Metals (QCLot: 1122509)										
WP2321825-003	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1122510)										
WP2321825-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.6 mg/L	10 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1122511)										
WP2321825-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.207 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0188 mg/L	0.02 mg/L	94.2	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00886 mg/L	0.01 mg/L	88.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00410 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.95 mg/L	2 mg/L	97.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0961 mg/L	0.1 mg/L	96.1	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1122511) - continued										
WP2321825-003	Anonymous	Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.32 mg/L	4 mg/L	108	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.8 mg/L	20 mg/L	109	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00377 mg/L	0.004 mg/L	94.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.399 mg/L	0.4 mg/L	99.7	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----
Dissolved Metals (QCLot: 1122881)										
WP2321825-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000975 mg/L	0.0001 mg/L	97.5	70.0	130	----
Dissolved Metals (QCLot: 1129473)										
WP2322077-008	SW-GL-B	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
1	CR- FDP	2-Sep-23	9:40	Water	9	X			7.46	19	81.6
2	CR- DS	2-Sep-23	10:25	Water	9	X			7.33	19.2	82.3
3	CR- REF	2-Sep-23	14:30	Water	9	X			8.03	21.8	85.2
4	SW-09	2-Sep-23	12:00	Water	9	X			7.28	16.5	174.1
5	BLANK-01	2-Sep-23	14:45	Water	9	X			/	/	/
6	SW-Travel- Blank	2-Sep-23	/	Water	7	X			/	/	/
7	SW-GL	3-Sep-23	10:10	Water	9	X			7.86	19.5	62
8	SW-GL-B	3-Sep-23	11:55	Water	9	X			7.12	19	61.4
9	DUP-01	3-Sep-23	10:15	Water	9	X			7.86	19.5	62
10	SW-TR	3-Sep-23	13:45	Water	9	X			4.8	21.5	22.2
11	SW-03	3-Sep-23	15:00	Water	9	X			7.88	14.2	201.6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: 5/Sep/2023	Time:	Received by:	Date: SEP 06 2023	Time:	Received by:	Time:

B3

Environmental Division
Winnipeg
Work Order Reference
WP2322077

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2322079**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2023 09:00
PO	: ----	Date Analysis Commenced	: 06-Sep-2023
C-O-C number	: ----	Issue Date	: 13-Sep-2023 14:15
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-04	SW-08	SW-08A	SW-11
					Client sampling date / time	04-Sep-2023 09:30	04-Sep-2023 10:30	04-Sep-2023 12:20	04-Sep-2023 13:00	04-Sep-2023 13:30
						WP2322079-001	WP2322079-002	WP2322079-003	WP2322079-004	WP2322079-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		5.52	6.93	6.80	6.87	5.91
Temperature, field	----	EF001/WP	0.10	°C		16.2	16.3	15.8	15.8	13.4
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		4.8	<2.0	2.3	<2.0	11.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		15.8	162	123	123	100
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		15.8	162	123	123	100
Conductivity	----	E100/WP	1.0	µS/cm		47.8	290	245	246	247
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		28.4	139	114	121	118
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		25.8	128	131	128	126
pH	----	E108/WP	0.10	pH units		6.70	7.78	7.68	7.73	6.99
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		72.7 RRV	308	191	188	260
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	32.8	3.1	2.3	6.9
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L		0.014	0.023	0.014	0.030	0.332
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<0.10	3.91	4.60	4.83	18.0
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0324	0.116	0.0568	0.0520	0.184
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	0.96	4.29	3.52	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0013	<0.0010	0.0012	0.0014
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0010	<0.0010	0.0015

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	SW-04	SW-08	SW-08A	SW-11
					Client sampling date / time	04-Sep-2023 09:30	04-Sep-2023 10:30	04-Sep-2023 12:20	04-Sep-2023 13:00	04-Sep-2023 13:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322079-001	WP2322079-002	WP2322079-003	WP2322079-004	WP2322079-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0016
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		36.8	55.6	24.3	23.9	58.4
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.135	1.23	0.0723	0.0695	0.309
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00011	0.00010	0.00018	<0.00010	0.00023
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00422	0.00775	0.00520	0.00536	0.0370
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00515	0.868	0.0267	0.0292	0.0254
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000029	<0.000020	<0.000020	0.000068
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000061	0.0000233	0.0000092	0.0000117	0.0000235
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		6.64	35.7	36.6	35.5	33.0
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000110	0.000014	0.000014	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00049	0.00264	0.00049	0.00052	0.00208
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00264	<0.00050	0.00052	0.00208
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00027	0.00104	0.00036	0.00042	0.00726
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	0.00407	0.00112	0.00104	0.00122
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.544	2.74	1.00	1.09	7.41
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000085	0.000706	0.000169	0.000154	0.000183
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0066	0.0045	0.0042	0.0030
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.24	9.44	9.54	9.45	10.6
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0280	0.893	0.368	0.458	1.72
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000057
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000052	0.00117	0.000748	0.000713	0.00135
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00065	0.00346	0.00152	0.00156	0.00742
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.122	0.050	0.061	0.176
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.122	0.050	0.061	0.176
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.464	3.37	2.38	2.33	2.11
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00190	0.00502	0.00365	0.00328	0.00356

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-04	SW-08	SW-08A	SW-11
					Client sampling date / time	04-Sep-2023 09:30	04-Sep-2023 10:30	04-Sep-2023 12:20	04-Sep-2023 13:00	04-Sep-2023 13:30
						WP2322079-001	WP2322079-002	WP2322079-003	WP2322079-004	WP2322079-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000110	0.000119	0.000134	0.000129	0.000326
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.26	6.44	4.15	3.97	10.6
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	0.000723	<0.000010	<0.000010	0.000012
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.27	12.3	6.64	6.85	10.4
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0232	0.108	0.0741	0.0679	0.0819
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	0.65	2.05	1.70	0.51
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000018	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00019	<0.00010	<0.00010	0.00050
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00199	0.0428	0.00515	0.00464	0.0181
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	0.00677	0.00047	0.00048	0.00018
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000038	0.000847	0.000745	0.000613	0.000134
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	0.00363	0.00144	0.00142	0.00520
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0030	0.0101	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00049	0.00044	0.00041	0.00257
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.129	0.284	0.0347	0.0372	0.278
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00010	0.00022
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00444	0.00641	0.00521	0.00511	0.0361
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00455	0.796	0.0283	0.0288	0.0255
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	0.000072
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000064	0.0000150	0.0000063	0.0000087	0.0000194
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		7.29	39.1	31.2	33.7	30.0
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	0.000028	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00043	0.00092	0.00038	0.00038	0.00190
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00092	<0.00050	<0.00050	0.00190
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00027	0.00068	0.00035	0.00038	0.00717

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-04	SW-08	SW-08A	SW-11
					Client sampling date / time	04-Sep-2023 09:30	04-Sep-2023 10:30	04-Sep-2023 12:20	04-Sep-2023 13:00	04-Sep-2023 13:30
						WP2322079-001	WP2322079-002	WP2322079-003	WP2322079-004	WP2322079-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00036	0.00199	0.00093	0.00089	0.00108
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.472	1.49	0.890	0.946	6.62
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000056	0.000320	0.000141	0.000131	0.000162
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0060	0.0040	0.0041	0.0024
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.47	10.0	8.90	8.89	10.5
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0266	0.892	0.311	0.392	1.62
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000070
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		<0.000050	0.00100	0.000687	0.000717	0.00126
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00059	0.00261	0.00143	0.00138	0.00701
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.038	0.031	0.043	0.129
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	0.129
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.523	3.44	2.51	2.42	2.10
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00201	0.00409	0.00371	0.00330	0.00356
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000112	0.000119	0.000125	0.000124	0.000404
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.175	5.51	4.13	3.86	10.4
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	0.000101	<0.000010	<0.000010	0.000012
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.25	12.9	5.80	6.47	10.4
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0186	0.0871	0.0719	0.0761	0.0823
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.52	0.91	2.12	1.76	0.63
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00013	<0.00010	<0.00010	0.00058
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00114	0.0120	0.00311	0.00318	0.0166
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	0.00621	0.00045	0.00042	0.00015
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000038	0.000836	0.000766	0.000570	0.000134
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00130	0.00105	0.00109	0.00471
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0016	0.0053	0.0021	0.0016	0.0030
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	0.00055	0.00056	0.00059	0.00349 RRV
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	SW-04	SW-08	SW-08A	SW-11
					Client sampling date / time	04-Sep-2023 09:30	04-Sep-2023 10:30	04-Sep-2023 12:20	04-Sep-2023 13:00	04-Sep-2023 13:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322079-001	WP2322079-002	WP2322079-003	WP2322079-004	WP2322079-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	DUP-02	BLANK-02	----	----	----
				Client sampling date / time	04-Sep-2023 09:40	04-Sep-2023 09:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2322079-006	WP2322079-007	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	5.52	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	16.2	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	3.4	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	15.8	<1.0	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	15.8	<1.0	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	47.7	<1.0	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	25.7	<0.50	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	28.5	<0.50	----	----	----
pH	----	E108/WP	0.10	pH units	6.66	5.42	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	82.9 RRV	<3.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	1.2	<1.0	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E303/WP	0.010	mg/L	<0.010	<0.010	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	<0.10	<0.10	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0233	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	<0.30	<0.30	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0010	<0.0010	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	0.0011	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-02	BLANK-02	----	----	----
					Client sampling date / time	04-Sep-2023 09:40	04-Sep-2023 09:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322079-006	WP2322079-007	--------	--------	--------
						Result	Result	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		40.7	0.52	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.139	<0.0030	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00014	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00454	<0.00010	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00576	<0.00010	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000060	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		7.61	<0.050	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00053	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00053	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00029	<0.00010	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.607	<0.010	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000077	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0014	<0.0010	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.31	<0.0050	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0300	<0.00010	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000059	<0.000050	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00068	<0.00050	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.539	<0.050	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00207	<0.00020	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000133	<0.000050	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.29	<0.10	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-02	BLANK-02	----	----	----
					Client sampling date / time	04-Sep-2023 09:40	04-Sep-2023 09:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322079-006	WP2322079-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.27	<0.050	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0190	<0.00020	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00239	<0.00030	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000038	<0.000010	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.117	<0.0010	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00011	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00442	<0.00010	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00466	<0.00010	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000061	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		6.53	<0.050	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00045	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00026	<0.00010	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00038	<0.00020	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.440	<0.010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-02	BLANK-02	----	----	----
					Client sampling date / time	04-Sep-2023 09:40	04-Sep-2023 09:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2322079-006	WP2322079-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000063	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.29	<0.0050	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0263	<0.00010	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00062	<0.00050	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.472	<0.050	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00183	<0.00020	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000129	<0.000050	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.227	<0.050	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.28	<0.050	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0189	<0.00020	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00121	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000033	<0.000010	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0019	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2322079**	Page	: 1 of 30
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2023 09:00
PO	: ----	Issue Date	: 13-Sep-2023 14:16
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1124591 001	----	Silicon, dissolved	7440-21-3	E421	0.062 B mg/L	0.05 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) BLANK-02	E303	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) DUP-02	E303	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-01	E303	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-04	E303	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-08	E303	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-08A	E303	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Ammonia in Water by Colour										
Amber glass total (sulfuric acid) SW-11	E303	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK-02	E235.Cl-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.Cl-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.Cl-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.Cl-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.Cl-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] BLANK-02	E235.NO3-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO3-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO3-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.NO3-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO3-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.NO3-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-11	E235.NO3-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-02	E235.NO2-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-02	E235.NO2-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO2-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.NO2-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO2-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.NO2-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-11	E235.NO2-L	04-Sep-2023	06-Sep-2023	7 days	2 days	✓	06-Sep-2023	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BLANK-02	E235.SO4	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP-02	E235.SO4	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-01	E235.SO4	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-04	E235.SO4	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08	E235.SO4	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08A	E235.SO4	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-11	E235.SO4	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
BLANK-02	E372-U	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	11-Sep-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-02	E372-U	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	11-Sep-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-01	E372-U	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	11-Sep-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-04	E372-U	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	11-Sep-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08	E372-U	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	11-Sep-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08A	E372-U	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	11-Sep-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-11	E372-U	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	11-Sep-2023	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-02	E339-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E339-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E339-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E339-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-02	E333-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E333-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-02	E336-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E336-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	04-Sep-2023	08-Sep-2023	14 days	4 days	✓	08-Sep-2023	14 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-02	E421.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK-02	E509	04-Sep-2023	12-Sep-2023	28 days	8 days	✓	12-Sep-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DUP-02	E509	04-Sep-2023	12-Sep-2023	28 days	8 days	✓	12-Sep-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-01	E509	04-Sep-2023	12-Sep-2023	28 days	8 days	✓	12-Sep-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-04	E509	04-Sep-2023	12-Sep-2023	28 days	8 days	✓	12-Sep-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08	E509	04-Sep-2023	12-Sep-2023	28 days	8 days	✓	12-Sep-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08A	E509	04-Sep-2023	12-Sep-2023	28 days	8 days	✓	12-Sep-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-11	E509	04-Sep-2023	12-Sep-2023	28 days	8 days	✓	12-Sep-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-01	E421	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-04	E421	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-08	E421	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BLANK-02	E421	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP-02	E421	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-08A	E421	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-11	E421	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-01	E421.P-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08	E421.P-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
BLANK-02	E421.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-11	E421.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-02	EF001	04-Sep-2023	----	----	----		06-Sep-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	04-Sep-2023	----	----	----		06-Sep-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	04-Sep-2023	----	----	----		06-Sep-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08	EF001	04-Sep-2023	----	----	----		06-Sep-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08A	EF001	04-Sep-2023	----	----	----		06-Sep-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	04-Sep-2023	----	----	----		06-Sep-2023	----	2 days	

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK-02	E358-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-02	E358-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08	E358-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08A	E358-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-11	E358-L	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK-02	E283	04-Sep-2023	09-Sep-2023	14 days	5 days	✓	12-Sep-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-02	E283	04-Sep-2023	09-Sep-2023	14 days	5 days	✓	12-Sep-2023	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	04-Sep-2023	09-Sep-2023	14 days	5 days	✓	12-Sep-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-04	E283	04-Sep-2023	09-Sep-2023	14 days	5 days	✓	12-Sep-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	04-Sep-2023	09-Sep-2023	14 days	5 days	✓	12-Sep-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08A	E283	04-Sep-2023	09-Sep-2023	14 days	5 days	✓	12-Sep-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-11	E283	04-Sep-2023	09-Sep-2023	14 days	5 days	✓	12-Sep-2023	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK-02	E290	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-02	E290	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓

Matrix: **Water**

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Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08A	E290	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-11	E290	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK-02	E100	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-02	E100	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08A	E100	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	04-Sep-2023	06-Sep-2023	28 days	2 days	✓	06-Sep-2023	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK-02	E108	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-02	E108	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08A	E108	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	04-Sep-2023	06-Sep-2023	14 days	2 days	✓	06-Sep-2023	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK-02	E162-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-02	E162-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08A	E162-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK-02	E160-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-02	E160-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	04-Sep-2023	----	----	----		07-Sep-2023	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-02	E420.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-02	E508	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	08-Sep-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	08-Sep-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	08-Sep-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	08-Sep-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	08-Sep-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	08-Sep-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	04-Sep-2023	08-Sep-2023	28 days	4 days	✓	08-Sep-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK-02	E420	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	04-Sep-2023	07-Sep-2023	180 days	3 days	✓	07-Sep-2023	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-02	E420.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	04-Sep-2023	08-Sep-2023	180 days	4 days	✓	08-Sep-2023	180 days	4 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1126530	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1120775	1	9	11.1	5.0	✓
Ammonia in Water by Colour	E303	1120970	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1120651	2	20	10.0	5.0	✓
Conductivity in Water	E100	1120776	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1122509	2	20	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1129473	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1122511	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1120911	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1122510	2	20	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1125118	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1120649	2	20	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1120650	2	20	10.0	5.0	✓
pH by Meter	E108	1120774	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1120648	3	21	14.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1121396	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1122380	1	18	5.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1125119	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1125163	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1122379	2	38	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1125519	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1122381	1	23	4.3	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1121395	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1125117	1	17	5.8	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1126530	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1120775	1	9	11.1	5.0	✓
Ammonia in Water by Colour	E303	1120970	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1120651	3	20	15.0	5.0	✓
Conductivity in Water	E100	1120776	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1122509	2	20	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1129473	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1122511	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1120911	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1122510	2	20	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1125118	1	17	5.8	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1120649	3	20	15.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1120650	3	20	15.0	5.0	✓
pH by Meter	E108	1120774	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1120648	3	21	14.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1121396	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1122380	2	18	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1125119	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1125163	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1122379	2	38	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1125519	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1122381	2	23	8.7	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1121395	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1125117	1	17	5.8	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1126530	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1120775	1	9	11.1	5.0	✓
Ammonia in Water by Colour	E303	1120970	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1120651	3	20	15.0	5.0	✓
Conductivity in Water	E100	1120776	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1122509	2	20	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1129473	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1122511	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1120911	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1122510	2	20	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1125118	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1120649	3	20	15.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1120650	3	20	15.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1120648	3	21	14.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1121396	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1122380	2	18	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1125119	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1125163	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1122379	2	38	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1125519	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1122381	2	23	8.7	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1121395	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1125117	1	17	5.8	5.0	✓
Matrix Spikes (MS)							
Ammonia in Water by Colour	E303	1120970	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1120651	2	20	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1122509	2	20	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1129473	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1122511	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1120911	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1122510	2	20	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1125118	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1120649	2	20	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1120650	2	20	10.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1120648	3	21	14.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1122380	1	18	5.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1125119	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1125163	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1122379	2	38	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1125519	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1122381	1	23	4.3	5.0	✗
WAD Cyanide (Low Level)	E336-L	1125117	1	17	5.8	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia in Water by Colour	E303 ALS Environmental - Winnipeg	Water	APHA 4500 NH3-NITROGEN (AMMONIA)	This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2322079**	Page	: 1 of 30
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2023 09:00
PO	: ----	Date Analysis Commenced	: 06-Sep-2023
C-O-C number	: ----	Issue Date	: 13-Sep-2023 14:15
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1120774)											
WP2322077-011	Anonymous	pH	----	E108	0.10	pH units	8.17	8.19	0.244%	4%	----
Physical Tests (QC Lot: 1120775)											
WP2322077-011	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	135	134	0.445%	20%	----
Physical Tests (QC Lot: 1120776)											
WP2322077-011	Anonymous	Conductivity	----	E100	1.0	µS/cm	248	249	0.402%	10%	----
Physical Tests (QC Lot: 1121395)											
WP2322077-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.0	5.2	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1121396)											
WP2322077-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	57.3	69.3	12.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1126530)											
BF2300263-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	5.8	5.7	0.08	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1120648)											
WP2322078-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1120970)											
WP2322076-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.010	mg/L	0.028	0.030	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1120984)											
WP2322079-003	SW-08	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.29	4.26	0.544%	20%	----
Anions and Nutrients (QC Lot: 1120985)											
WP2322079-003	SW-08	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	4.60	4.47	2.86%	20%	----
Anions and Nutrients (QC Lot: 1120986)											
WP2322079-003	SW-08	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1120987)											
WP2322079-003	SW-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1122191)											
WP2322079-006	DUP-02	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1122192)											
WP2322079-006	DUP-02	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1122193)											
WP2322079-006	DUP-02	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1122194)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1122194) - continued											
WP2322079-006	DUP-02	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1125519)											
WP2322077-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0353	0.0351	0.540%	20%	----
Cyanides (QC Lot: 1125117)											
WP2322077-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1125118)											
WP2322077-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1125119)											
WP2322077-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1120911)											
WP2321929-008	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	3.89	3.58	0.30	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1124698)											
WP2322079-007	BLANK-02	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	0.52	0.64	0.12	Diff <2x LOR	----
Total Metals (QC Lot: 1122379)											
WP2321936-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	0.0035	0.0005	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00041	0.00042	0.000002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00728	0.00730	0.288%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	15.9	17.4	8.71%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0245	0.0264	7.55%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.012	0.016	0.004	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000252	0.000285	0.000033	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0014	0.0016	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.26	4.43	4.01%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00066	0.00072	0.00006	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000141	0.000141	0.0000003	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1122379) - continued											
WP2321936-002	Anonymous	Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.640	0.670	4.48%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00105	0.00104	0.000007	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000063	<0.000050	0.000013	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.90	1.95	2.72%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.45	1.57	8.22%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0259	0.0253	2.15%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00379	0.00431	12.7%	20%	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000178	0.000201	12.2%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0096	0.0070	0.0027	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1124513)											
WP2322079-003	SW-08	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0723	0.0757	4.54%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00018	0.00014	0.00003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00520	0.00511	1.74%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0267	0.0282	5.71%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.010	0.010	0.0001	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000092	0.0000080	0.0000012	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	36.6	36.3	0.759%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000014	0.000016	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	0.00054	0.00004	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00036	0.00037	0.00001	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00112	0.00110	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1124513) - continued											
WP2322079-003	SW-08	Iron, total	7439-89-6	E420	0.010	mg/L	1.00	1.02	1.75%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000169	0.000152	0.000018	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0045	0.0044	0.00009	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	9.54	9.14	4.30%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.368	0.358	2.74%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000748	0.000768	2.60%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00152	0.00148	0.00004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.050	<0.050	0.0006	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	2.38	2.36	1.03%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00365	0.00361	1.06%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000134	0.000116	0.000018	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.15	4.06	2.13%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	6.64	6.24	6.12%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0741	0.0699	5.82%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	2.05	2.08	0.03	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00515	0.00470	9.18%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00047	0.00046	0.00002	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000745	0.000706	5.48%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00144	0.00139	0.00005	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00044	0.00042	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1124514)											
WP2322079-003	SW-08	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00049	0.00054	0.00005	Diff <2x LOR	----
Total Metals (QC Lot: 1124515)											
WP2322079-003	SW-08	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.050	0.046	0.005	Diff <2x LOR	----
Total Metals (QC Lot: 1125163)											
WP2322077-006	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1122509)											
WP2321825-003	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00015	0.00015	0.000002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1122510)											
WP2321825-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1122511)											
WP2321825-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0285	0.0287	0.939%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00270	0.00255	5.72%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0179	0.0184	2.97%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000094	0.0000044	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	13.1	14.3	8.49%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	0.000012	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00011	0.00010	0.000008	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00040	0.00042	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.397	0.383	3.72%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000083	0.000077	0.000006	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.99	2.82	5.91%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0498	0.0492	1.38%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000076	0.000068	0.000008	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00065	<0.00050	0.00015	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.62	1.61	0.650%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00265	0.00254	4.49%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.12	1.10	2.36%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	52.1	49.0	6.16%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0574	0.0599	4.22%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.09	2.27	0.18	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1122511) - continued											
WP2321825-003	Anonymous	Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00054	0.00060	0.00007	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000040	0.000037	0.000003	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0015	0.0018	0.0003	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1124591)											
WP2322079-004	SW-08A	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0372	0.0363	2.66%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00010	0.00011	0.000002	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00511	0.00521	1.94%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0288	0.0290	0.907%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000087	0.0000066	0.0000022	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	33.7	32.9	2.42%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00038	0.00038	0.0000009	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00089	0.00093	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.946	0.970	2.46%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000131	0.000131	0.0000001	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0041	0.0040	0.00009	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	8.89	9.40	5.61%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.392	0.391	0.179%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000717	0.000791	9.77%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00138	0.00145	0.00007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.42	2.46	1.94%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00330	0.00335	1.46%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000124	0.000143	0.000019	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.86	3.86	0.0144%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1124591) - continued											
WP2322079-004	SW-08A	Sodium, dissolved	7440-23-5	E421	0.050	mg/L	6.47	6.76	4.30%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0761	0.0788	3.46%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.76	1.68	0.08	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00318	0.00317	0.325%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00042	0.00044	0.00002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000570	0.000588	3.14%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00109	0.00116	0.00007	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0016	0.0016	0.00006	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00059	0.00061	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1124592)											
WP2322079-004	SW-08A	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00038	0.00042	0.00004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1124593)											
WP2322079-004	SW-08A	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	0.043	0.040	0.002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1129473)											
WP2322077-007	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1120775)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1120776)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1121395)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1121396)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1126530)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1120648)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1120649)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1120650)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1120651)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1120970)						
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1120984)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1120985)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1120986)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1120987)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1122191)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1122192)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1122193)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1122193) - continued						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1122194)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1125519)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1125117)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1125118)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1125119)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1120911)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1124698)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1122379)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1122379) - continued						
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1122380)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1122381)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1124513)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1124513) - continued						
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1124514)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1124515)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1125163)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1122509)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1122510)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1122511)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1122511) - continued						
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1124591)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	# 0.062	B
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1124591) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1124592)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1124593)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1129473)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1120774)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1120775)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.8	85.0	115	----
Physical Tests (QCLot: 1120776)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1121395)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	94.4	85.0	115	----
Physical Tests (QCLot: 1121396)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.1	85.0	115	----
Physical Tests (QCLot: 1126530)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	106	85.0	115	----
Anions and Nutrients (QCLot: 1120648)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1120649)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1120650)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.9	90.0	110	----
Anions and Nutrients (QCLot: 1120651)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.8	90.0	110	----
Anions and Nutrients (QCLot: 1120970)									
Ammonia, total (as N)	7664-41-7	E303	0.01	mg/L	0.25 mg/L	98.3	85.0	115	----
Anions and Nutrients (QCLot: 1120984)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1120985)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	96.4	90.0	110	----
Anions and Nutrients (QCLot: 1120986)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1120987)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.4	90.0	110	----
Anions and Nutrients (QCLot: 1122191)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.9	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1122192)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.6	90.0	110	----
Anions and Nutrients (QCLot: 1122193)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1122194)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.6	90.0	110	----
Anions and Nutrients (QCLot: 1125519)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	90.9	80.0	120	----
Cyanides (QCLot: 1125117)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	100	80.0	120	----
Cyanides (QCLot: 1125118)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1125119)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	92.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1120911)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	94.5	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1124698)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.1	80.0	120	----
Total Metals (QCLot: 1122379)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	112	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	106	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	110	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	110	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	97.6	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.9	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1122379) - continued									
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	112	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	115	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	112	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.5	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	102	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	116	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	115	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	104	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	107	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.5	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Total Metals (QCLot: 1122380)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Total Metals (QCLot: 1122381)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	112	80.0	120	----
Total Metals (QCLot: 1124513)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	105	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	110	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	118	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	96.3	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	119	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1124513) - continued									
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	109	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	112	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	97.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.9	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	114	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	111	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	111	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.5	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.1	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	110	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.2	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	107	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	91.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.7	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	108	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	93.0	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.7	80.0	120	----
Total Metals (QCLot: 1124514)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Total Metals (QCLot: 1124515)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	111	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1125163)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 1122509)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Dissolved Metals (QCLot: 1122511)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.2	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.1	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.1	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	96.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.0	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.7	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	101	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	99.5	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1122511) - continued									
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	104	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	108	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.1	80.0	120	----
Dissolved Metals (QCLot: 1124591)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	105	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.8	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	106	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	107	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.3	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	114	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	113	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	98.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1124591) - continued									
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	111	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	99.6	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	108	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.3	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	99.0	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	108	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.5	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	100	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.7	80.0	120	----
Dissolved Metals (QCLot: 1124592)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	113	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1120648)										
WP2322078-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1120970)										
WP2322076-001	Anonymous	Ammonia, total (as N)	7664-41-7	E303	0.227 mg/L	0.25 mg/L	90.7	75.0	125	----
Anions and Nutrients (QCLot: 1120984)										
WP2322079-003	SW-08	Sulfate (as SO4)	14808-79-8	E235.SO4	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1120985)										
WP2322079-003	SW-08	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1120986)										
WP2322079-003	SW-08	Nitrate (as N)	14797-55-8	E235.NO3-L	2.65 mg/L	2.5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1120987)										
WP2322079-003	SW-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.509 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1122191)										
WP2322079-006	DUP-02	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1122192)										
WP2322079-006	DUP-02	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1122193)										
WP2322079-006	DUP-02	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1122194)										
WP2322079-006	DUP-02	Nitrite (as N)	14797-65-0	E235.NO2-L	0.501 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1125519)										
WP2322077-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.231 mg/L	0.25 mg/L	92.5	70.0	130	----
Cyanides (QCLot: 1125117)										
WP2322077-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.127 mg/L	0.125 mg/L	102	75.0	125	----
Cyanides (QCLot: 1125118)										
WP2322077-001	Anonymous	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1125119)										
WP2322077-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.222 mg/L	0.25 mg/L	88.7	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1120911)										
WP2321929-009	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.80 mg/L	5 mg/L	96.0	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1124698)										
WP2322177-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.22 mg/L	5 mg/L	104	70.0	130	----
Total Metals (QCLot: 1122379)										
WP2321936-002	Anonymous	Aluminum, total	7429-90-5	E420	0.205 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Barium, total	7440-39-3	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Boron, total	7440-42-8	E420	0.096 mg/L	0.1 mg/L	96.0	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00998 mg/L	0.01 mg/L	99.8	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.04 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Lithium, total	7439-93-2	E420	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	3.96 mg/L	4 mg/L	98.9	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, total	7440-21-3	E420	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, total	7440-22-4	E420	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Sodium, total	7440-23-5	E420	1.88 mg/L	2 mg/L	93.9	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.3 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1122379) - continued										
WP2321936-002	Anonymous	Thorium, total	7440-29-1	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Tin, total	7440-31-5	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0383 mg/L	0.04 mg/L	95.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00438 mg/L	0.004 mg/L	110	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, total	7440-66-6	E420	0.391 mg/L	0.4 mg/L	97.9	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0444 mg/L	0.04 mg/L	111	70.0	130	----
Total Metals (QCLot: 1124513)										
WP2322079-003	SW-08	Aluminum, total	7429-90-5	E420	0.198 mg/L	0.2 mg/L	99.1	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0217 mg/L	0.02 mg/L	109	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0438 mg/L	0.04 mg/L	109	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00960 mg/L	0.01 mg/L	96.0	70.0	130	----
		Boron, total	7440-42-8	E420	0.120 mg/L	0.1 mg/L	120	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Copper, total	7440-50-8	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, total	7439-89-6	E420	1.88 mg/L	2 mg/L	94.2	70.0	130	----
		Lead, total	7439-92-1	E420	0.0198 mg/L	0.02 mg/L	99.3	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0988 mg/L	0.1 mg/L	98.8	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, total	7440-09-7	E420	4.16 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0420 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, total	7440-21-3	E420	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, total	7440-22-4	E420	0.00415 mg/L	0.004 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1124513) - continued										
WP2322079-003	SW-08	Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.0 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00380 mg/L	0.004 mg/L	95.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, total	7440-66-6	E420	0.400 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Total Metals (QCLot: 1124514)										
WP2322079-003	SW-08	Chromium, total	7440-47-3	E420.Cr-L	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
Total Metals (QCLot: 1124515)										
WP2322079-003	SW-08	Phosphorus, total	7723-14-0	E420.P-L	10.6 mg/L	10 mg/L	106	70.0	130	----
Total Metals (QCLot: 1125163)										
WP2322077-007	Anonymous	Mercury, total	7439-97-6	E508	0.0000981 mg/L	0.0001 mg/L	98.1	70.0	130	----
Dissolved Metals (QCLot: 1122509)										
WP2321825-003	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1122510)										
WP2321825-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.6 mg/L	10 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1122511)										
WP2321825-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.207 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0188 mg/L	0.02 mg/L	94.2	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00886 mg/L	0.01 mg/L	88.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00410 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1122511) - continued										
WP2321825-003	Anonymous	Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.95 mg/L	2 mg/L	97.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0961 mg/L	0.1 mg/L	96.1	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.32 mg/L	4 mg/L	108	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.8 mg/L	20 mg/L	109	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00377 mg/L	0.004 mg/L	94.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.399 mg/L	0.4 mg/L	99.7	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----
Dissolved Metals (QCLot: 1124591)										
WP2322079-004	SW-08A	Aluminum, dissolved	7429-90-5	E421	0.182 mg/L	0.2 mg/L	91.2	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1124591) - continued										
WP2322079-004	SW-08A	Beryllium, dissolved	7440-41-7	E421	0.0397 mg/L	0.04 mg/L	99.4	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00929 mg/L	0.01 mg/L	92.9	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.091 mg/L	0.1 mg/L	90.7	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00398 mg/L	0.004 mg/L	99.5	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0372 mg/L	0.04 mg/L	93.0	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0184 mg/L	0.02 mg/L	92.0	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.77 mg/L	2 mg/L	88.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0185 mg/L	0.02 mg/L	92.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0942 mg/L	0.1 mg/L	94.2	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0366 mg/L	0.04 mg/L	91.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.1 mg/L	10 mg/L	101	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.72 mg/L	4 mg/L	93.0	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0183 mg/L	0.02 mg/L	91.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.24 mg/L	10 mg/L	92.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00374 mg/L	0.004 mg/L	93.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.6 mg/L	20 mg/L	98.1	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00373 mg/L	0.004 mg/L	93.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0373 mg/L	0.04 mg/L	93.2	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00375 mg/L	0.004 mg/L	93.7	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0968 mg/L	0.1 mg/L	96.8	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.381 mg/L	0.4 mg/L	95.3	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1124592)										
WP2322079-004	SW-08A	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0372 mg/L	0.04 mg/L	93.0	70.0	130	----
Dissolved Metals (QCLot: 1124593)										
WP2322079-004	SW-08A	Phosphorus, dissolved	7723-14-0	E421.P-L	10.1 mg/L	10 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1129473)										
WP2322077-008	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
1	SW-01	4-Sep-23	9:30	Water	9	X			5.52	16.2	41.3
2	SW-04	4-Sep-23	10:30	Water	9	X			6.93	16.3	24736
3	SW-08	4-Sep-23	12:20	Water	9	X			6.8	15.8	206.1
4	SW-08a	4-Sep-23	13:00	Water	9	X			6.87	15.8	205.4
5	SW-11	4-Sep-23	13:30	Water	9	X			5.91	13.4	208.1
6	DUP-02	4-Sep-23	9:40	Water	9	X			5.52	16.2	41.3
7	BLANK-02	4-Sep-23	9:50	Water	9	X			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Time:
CB	5/Sep/2023			SEP 06 2023	900		

B-3

Environmental Division
Winnipeg
Work Order Reference
WP2322079

Telephone : +1 204 255 9720

CERTIFICATE OF ANALYSIS

Work Order	: **WP2325933**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 11-Oct-2023
C-O-C number	: ----	Issue Date	: 18-Oct-2023 16:01
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLIS	*Detection Limit Adjusted due to insufficient sample.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-DS	SW-10	SW-09	DUP-01	DL-REF
					Client sampling date / time	07-Oct-2023 12:45	08-Oct-2023 09:55	08-Oct-2023 10:30	07-Oct-2023 11:40	07-Oct-2023 11:40
						WP2325933-001	WP2325933-002	WP2325933-003	WP2325933-004	WP2325933-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.16	7.21	7.19	6.07	6.07
Temperature, field	----	EF001/WP	0.10	°C		10.8	8.80	8.90	12.9	12.9
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.6	7.1	9.9 DLIS	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		56.7	60.7	105	38.1	38.9
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		56.7	60.7	105	38.1	38.9
Conductivity	----	E100/WP	1.0	µS/cm		116	129	228	82.1	83.1
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		56.4	69.1	109	39.5	39.7
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		60.5	71.9	122	41.4	40.6
pH	----	E108/WP	0.10	pH units		7.47	7.09	7.43	7.55	7.68
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		85.6	142	235	70.6	71.2
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.8	6.3	220	7.5	11.1
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0187	0.0178	0.0406	0.0080	0.0082
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.42	0.56	6.29	0.73	0.30
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0219	0.0102	0.406	0.0152	0.0115
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0219	0.0102	0.414	0.0152	0.0115
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	0.0083	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0282	0.0359	0.173	0.0447	0.0448
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.46	0.93	6.25	0.57	0.58
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0016	0.0019	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0017	0.0021	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-DS	SW-10	SW-09	DUP-01	DL-REF
					Client sampling date / time	07-Oct-2023 12:45	08-Oct-2023 09:55	08-Oct-2023 10:30	07-Oct-2023 11:40	07-Oct-2023 11:40
						WP2325933-001	WP2325933-002	WP2325933-003	WP2325933-004	WP2325933-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0012	0.0015	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		16.0	39.6	31.5	18.5	16.3
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.126	0.789	11.8	0.148	0.160
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00015	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00193	0.00270	0.00695	0.00251	0.00243
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0109	0.0194	0.130	0.00994	0.00995
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000036	0.000327	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	0.000113	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	0.015	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000096	0.0000577	0.0000066	0.0000060
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		16.8	18.0	28.8	11.0	10.8
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000011	0.000069	0.00128	0.000013	0.000013
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00038	0.00176	0.0226	0.00039	0.00041
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00176	0.0226	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00013	0.00037	0.00490	0.00016	0.00017
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00066	0.00151	0.0153	0.00082	0.00082
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.318	1.25	13.7	0.377	0.385
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000086	0.000297	0.00473	0.000147	0.000158
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	0.0034	0.0142	0.0016	0.0015
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		4.50	6.54	12.2	3.39	3.31
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0213	0.0358	0.449	0.0146	0.0153
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000083	0.0000156	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000207	0.000597	0.000611	0.000241	0.000251
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00058	0.00179	0.0152	0.00062	0.00059
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.039	0.037	0.204	0.056	0.055
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	0.204	0.056	0.055
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.41	2.14	4.66	1.12	1.13
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00261	0.00327	0.0231	0.00242	0.00225

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-DS	SW-10	SW-09	DUP-01	DL-REF
					Client sampling date / time	07-Oct-2023 12:45	08-Oct-2023 09:55	08-Oct-2023 10:30	07-Oct-2023 11:40	07-Oct-2023 11:40
						WP2325933-001	WP2325933-002	WP2325933-003	WP2325933-004	WP2325933-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000086	0.000176	0.000259	0.000121	0.000108
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.63	5.90	27.2	2.88	3.00
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000086	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.81	2.70	7.55	1.71	1.54
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0326	0.0387	0.0813	0.0253	0.0244
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	0.96	2.86	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000011	0.000147	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00018	0.00173	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00027	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00479	0.0325	0.456	0.00505	0.00535
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00039	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000124	0.000161	0.000852	0.000173	0.000180
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00060	0.00182	0.0245	0.00085	0.00091
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0031	0.0348	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00026	0.00086	0.00396	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0319	0.203	1.44	0.0340	0.0483
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00172	0.00240	0.00352	0.00222	0.00214
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00993	0.0144	0.0527	0.00882	0.00858
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	0.000085	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	0.013	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	0.0000053	0.0000244	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		15.7	18.1	29.4	10.5	10.7
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000088	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00019	0.00065	0.00315	0.00023	0.00022
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00065	0.00315	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00013	0.00120	<0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-DS	SW-10	SW-09	DUP-01	DL-REF
					Client sampling date / time	07-Oct-2023 12:45	08-Oct-2023 09:55	08-Oct-2023 10:30	07-Oct-2023 11:40	07-Oct-2023 11:40
						WP2325933-001	WP2325933-002	WP2325933-003	WP2325933-004	WP2325933-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00052	0.00078	0.00429	0.00064	0.00062
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.175	0.543	2.08	0.184	0.192
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	0.000076	0.00113	0.000078	0.000083
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0031	0.0052	0.0015	0.0015
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.18	5.80	8.70	3.23	3.16
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0141	0.0186	0.328	0.00401	0.00354
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	0.0000055	0.0000054	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000204	0.000575	0.000302	0.000240	0.000267
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	0.00119	0.00402	<0.00050	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	0.054	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	0.054	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.43	1.96	3.09	1.08	1.10
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00237	0.00207	0.00425	0.00206	0.00202
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000091	0.000108	0.000162	0.000068	0.000116
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.32	4.90	7.59	2.79	2.82
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.74	2.46	7.04	1.48	1.42
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0351	0.0393	0.0732	0.0266	0.0264
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.80	2.42	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000020	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00014	0.00038	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00110	0.00578	0.0433	0.00110	0.00144
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00024	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000110	0.000119	0.000553	0.000155	0.000162
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00066	0.00410	0.00061	0.00062
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0014	0.0079	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	0.00069	0.00228	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DC-DS	SW-10	SW-09	DUP-01	DL-REF
					Client sampling date / time	07-Oct-2023 12:45	08-Oct-2023 09:55	08-Oct-2023 10:30	07-Oct-2023 11:40	07-Oct-2023 11:40
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2325933-001	WP2325933-002	WP2325933-003	WP2325933-004	WP2325933-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2325933**	Page	: 1 of 25
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Oct-2023 09:00
PO	: ----	Issue Date	: 18-Oct-2023 16:00
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Anions and Nutrients	QC-1181672-001	----	Phosphorus, total	7723-14-0	E372-U	0.0046 B mg/L	0.002 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG6-1186734 001	----	Manganese, total	7439-96-5	E420	0.00012 mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-09	E298	08-Oct-2023	12-Oct-2023	28 days	4 days	✓	12-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-10	E298	08-Oct-2023	12-Oct-2023	28 days	4 days	✓	12-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DC-DS	E298	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	12-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DL-REF	E298	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	12-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-01	E298	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	12-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.Cl-L	08-Oct-2023	11-Oct-2023	28 days	3 days	✓	11-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.Cl-L	08-Oct-2023	11-Oct-2023	28 days	3 days	✓	11-Oct-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
DC-DS	E235.Cl-L	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
DL-REF	E235.Cl-L	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.Cl-L	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.NO3-L	08-Oct-2023	11-Oct-2023	7 days	3 days	✓	11-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-10	E235.NO3-L	08-Oct-2023	11-Oct-2023	7 days	3 days	✓	11-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DC-DS	E235.NO3-L	07-Oct-2023	11-Oct-2023	7 days	4 days	✓	11-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DL-REF	E235.NO3-L	07-Oct-2023	11-Oct-2023	7 days	4 days	✓	11-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.NO3-L	07-Oct-2023	11-Oct-2023	7 days	4 days	✓	11-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.NO2-L	08-Oct-2023	11-Oct-2023	7 days	3 days	✓	11-Oct-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-10	E235.NO2-L	08-Oct-2023	11-Oct-2023	7 days	3 days	✓	11-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DC-DS	E235.NO2-L	07-Oct-2023	11-Oct-2023	7 days	4 days	✓	11-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DL-REF	E235.NO2-L	07-Oct-2023	11-Oct-2023	7 days	4 days	✓	11-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.NO2-L	07-Oct-2023	11-Oct-2023	7 days	4 days	✓	11-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-09	E235.SO4	08-Oct-2023	11-Oct-2023	28 days	3 days	✓	11-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-10	E235.SO4	08-Oct-2023	11-Oct-2023	28 days	3 days	✓	11-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DC-DS	E235.SO4	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DL-REF	E235.SO4	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP-01	E235.SO4	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-09	E372-U	08-Oct-2023	12-Oct-2023	28 days	4 days	✓	13-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-10	E372-U	08-Oct-2023	12-Oct-2023	28 days	4 days	✓	13-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DC-DS	E372-U	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	13-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DL-REF	E372-U	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	13-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-01	E372-U	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	13-Oct-2023	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	08-Oct-2023	16-Oct-2023	14 days	8 days	✓	16-Oct-2023	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E339-L	08-Oct-2023	16-Oct-2023	14 days	8 days	✓	16-Oct-2023	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-DS	E339-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E339-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E339-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	08-Oct-2023	16-Oct-2023	14 days	8 days	✓	16-Oct-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E333-L	08-Oct-2023	16-Oct-2023	14 days	8 days	✓	16-Oct-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-DS	E333-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E333-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	08-Oct-2023	16-Oct-2023	14 days	8 days	✓	16-Oct-2023	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E336-L	08-Oct-2023	16-Oct-2023	14 days	8 days	✓	16-Oct-2023	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-DS	E336-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E336-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	07-Oct-2023	16-Oct-2023	14 days	9 days	✓	16-Oct-2023	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DC-DS	E421.Cr-L	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.Cr-L	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.Cr-L	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	08-Oct-2023	17-Oct-2023	180 days	9 days	✓	17-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-10	E421.Cr-L	08-Oct-2023	17-Oct-2023	180 days	9 days	✓	17-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DC-DS	E509	07-Oct-2023	17-Oct-2023	28 days	10 days	✓	17-Oct-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DL-REF	E509	07-Oct-2023	17-Oct-2023	28 days	10 days	✓	17-Oct-2023	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-01	E509	07-Oct-2023	17-Oct-2023	28 days	10 days	✓	17-Oct-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	08-Oct-2023	17-Oct-2023	28 days	9 days	✓	17-Oct-2023	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-10	E509	08-Oct-2023	17-Oct-2023	28 days	9 days	✓	17-Oct-2023	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-DS	E421	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DL-REF	E421	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-01	E421	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	08-Oct-2023	17-Oct-2023	180 days	9 days	✓	17-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-10	E421	08-Oct-2023	17-Oct-2023	180 days	9 days	✓	17-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DC-DS	E421.P-L	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.P-L	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.P-L	07-Oct-2023	17-Oct-2023	180 days	10 days	✓	17-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-09	E421.P-L	08-Oct-2023	17-Oct-2023	180 days	9 days	✓	17-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-10	E421.P-L	08-Oct-2023	17-Oct-2023	180 days	9 days	✓	17-Oct-2023	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-09	EF001	08-Oct-2023	----	----	----		11-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-10	EF001	08-Oct-2023	----	----	----		11-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DC-DS	EF001	07-Oct-2023	----	----	----		11-Oct-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DL-REF	EF001	07-Oct-2023	----	----	----		11-Oct-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-01	EF001	07-Oct-2023	----	----	----		11-Oct-2023	----	4 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-09	E358-L	08-Oct-2023	12-Oct-2023	28 days	4 days	✓	12-Oct-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-10	E358-L	08-Oct-2023	12-Oct-2023	28 days	4 days	✓	12-Oct-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DC-DS	E358-L	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	12-Oct-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DUP-01	E358-L	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	12-Oct-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DL-REF	E358-L	07-Oct-2023	14-Oct-2023	28 days	7 days	✓	14-Oct-2023	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-10	E283	08-Oct-2023	13-Oct-2023	14 days	5 days	✓	17-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE DC-DS	E283	07-Oct-2023	13-Oct-2023	14 days	6 days	✓	17-Oct-2023	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-09	E283	08-Oct-2023	14-Oct-2023	14 days	6 days	✓	17-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE DL-REF	E283	07-Oct-2023	14-Oct-2023	14 days	7 days	✓	17-Oct-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE										
DUP-01	E283	07-Oct-2023	14-Oct-2023	14 days	7 days	✓	17-Oct-2023	14 days	10 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-09	E290	08-Oct-2023	11-Oct-2023	14 days	3 days	✓	11-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-10	E290	08-Oct-2023	11-Oct-2023	14 days	3 days	✓	11-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DC-DS	E290	07-Oct-2023	11-Oct-2023	14 days	4 days	✓	11-Oct-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DL-REF	E290	07-Oct-2023	11-Oct-2023	14 days	4 days	✓	11-Oct-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DUP-01	E290	07-Oct-2023	11-Oct-2023	14 days	4 days	✓	11-Oct-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
SW-09	E100	08-Oct-2023	11-Oct-2023	28 days	3 days	✓	11-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
SW-10	E100	08-Oct-2023	11-Oct-2023	28 days	3 days	✓	11-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
DC-DS	E100	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DL-REF	E100	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-01	E100	07-Oct-2023	11-Oct-2023	28 days	4 days	✓	11-Oct-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	08-Oct-2023	11-Oct-2023	14 days	3 days	✓	11-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-10	E108	08-Oct-2023	11-Oct-2023	14 days	3 days	✓	11-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DC-DS	E108	07-Oct-2023	11-Oct-2023	14 days	4 days	✓	11-Oct-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DL-REF	E108	07-Oct-2023	11-Oct-2023	14 days	4 days	✓	11-Oct-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-01	E108	07-Oct-2023	11-Oct-2023	14 days	4 days	✓	11-Oct-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	08-Oct-2023	----	----	----		12-Oct-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-10	E162-L	08-Oct-2023	----	----	----		12-Oct-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DC-DS	E162-L	07-Oct-2023	----	----	----		12-Oct-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DL-REF	E162-L	07-Oct-2023	----	----	----		12-Oct-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-01	E162-L	07-Oct-2023	----	----	----		12-Oct-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	08-Oct-2023	----	----	----		12-Oct-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-10	E160-L	08-Oct-2023	----	----	----		12-Oct-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DC-DS	E160-L	07-Oct-2023	----	----	----		12-Oct-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DL-REF	E160-L	07-Oct-2023	----	----	----		12-Oct-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-01	E160-L	07-Oct-2023	----	----	----		12-Oct-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	08-Oct-2023	16-Oct-2023	180 days	8 days	✓	16-Oct-2023	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-10	E420.Cr-L	08-Oct-2023	16-Oct-2023	180 days	8 days	✓	16-Oct-2023	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-DS	E420.Cr-L	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DL-REF	E420.Cr-L	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DL-REF	E508	07-Oct-2023	17-Oct-2023	28 days	10 days	✓	17-Oct-2023	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	07-Oct-2023	17-Oct-2023	28 days	10 days	✓	17-Oct-2023	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	08-Oct-2023	12-Oct-2023	28 days	4 days	✓	12-Oct-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-10	E508	08-Oct-2023	12-Oct-2023	28 days	4 days	✓	12-Oct-2023	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-DS	E508	07-Oct-2023	12-Oct-2023	28 days	5 days	✓	12-Oct-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	08-Oct-2023	16-Oct-2023	180 days	8 days	✓	16-Oct-2023	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-10	E420	08-Oct-2023	16-Oct-2023	180 days	8 days	✓	16-Oct-2023	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-DS	E420	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DL-REF	E420	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-01	E420	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	08-Oct-2023	16-Oct-2023	180 days	8 days	✓	16-Oct-2023	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-10	E420.P-L	08-Oct-2023	16-Oct-2023	180 days	8 days	✓	16-Oct-2023	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-DS	E420.P-L	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DL-REF	E420.P-L	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
DUP-01	E420.P-L	07-Oct-2023	16-Oct-2023	180 days	9 days	✓	16-Oct-2023	180 days	9 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1184173	2	27	7.4	5.0	✓
Alkalinity Species by Titration	E290	1178654	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1181461	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1179056	1	11	9.0	5.0	✓
Conductivity in Water	E100	1178653	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1189682	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1189681	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1181502	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1189683	1	17	5.8	5.0	✓
Free Cyanide (Low Level)	E339-L	1186747	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1179059	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1179060	1	11	9.0	5.0	✓
pH by Meter	E108	1178652	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1179054	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1179549	2	29	6.9	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1186734	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1186745	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1181540	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1186736	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1181672	1	17	5.8	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1186735	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1179545	1	7	14.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1186746	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1184173	2	27	7.4	5.0	✓
Alkalinity Species by Titration	E290	1178654	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1181461	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1179056	1	11	9.0	5.0	✓
Conductivity in Water	E100	1178653	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1189682	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1189681	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1181502	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1189683	1	17	5.8	5.0	✓
Free Cyanide (Low Level)	E339-L	1186747	1	12	8.3	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1179059	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1179060	1	11	9.0	5.0	✓
pH by Meter	E108	1178652	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1179054	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1179549	2	29	6.9	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1186734	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1186745	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1181540	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1186736	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1181672	1	17	5.8	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1186735	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1179545	1	7	14.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1186746	1	12	8.3	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1184173	2	27	7.4	5.0	✓
Alkalinity Species by Titration	E290	1178654	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1181461	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1179056	1	11	9.0	5.0	✓
Conductivity in Water	E100	1178653	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1189682	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1189681	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1181502	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1189683	1	17	5.8	5.0	✓
Free Cyanide (Low Level)	E339-L	1186747	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1179059	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1179060	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1179054	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1179549	2	29	6.9	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1186734	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1186745	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1181540	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1186736	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1181672	1	17	5.8	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1186735	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1179545	1	7	14.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1186746	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1181461	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1179056	1	11	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1189682	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1189681	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1181502	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1189683	1	17	5.8	5.0	✓
Free Cyanide (Low Level)	E339-L	1186747	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1179059	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1179060	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1179054	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1186734	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1186745	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1181540	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1186736	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1181672	1	17	5.8	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1186735	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1186746	1	12	8.3	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2325933**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 11-Oct-2023
C-O-C number	: ----	Issue Date	: 18-Oct-2023 15:59
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1178652)											
WP2325933-004	DUP-01	pH	----	E108	0.10	pH units	7.55	7.52	0.398%	4%	----
Physical Tests (QC Lot: 1178653)											
WP2325933-004	DUP-01	Conductivity	----	E100	1.0	µS/cm	82.1	82.4	0.365%	10%	----
Physical Tests (QC Lot: 1178654)											
WP2325933-004	DUP-01	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	38.1	38.5	1.04%	20%	----
Physical Tests (QC Lot: 1179545)											
WP2325932-009	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	10.5	11.7	10.8%	20%	----
Physical Tests (QC Lot: 1179549)											
WP2325926-017	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	85.2	84.9	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1179550)											
WP2325933-003	SW-09	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	235	230	2.29%	20%	----
Physical Tests (QC Lot: 1184173)											
WP2325923-005	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1185683)											
WP2325933-003	SW-09	Acidity (as CaCO3)	----	E283	2.0	mg/L	9.9	9.4	0.5	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1179054)											
WP2325932-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	11.5	11.5	0.228%	20%	----
Anions and Nutrients (QC Lot: 1179056)											
WP2325932-006	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.58	1.52	4.21%	20%	----
Anions and Nutrients (QC Lot: 1179059)											
WP2325932-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1179060)											
WP2325932-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1181461)											
WP2325902-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0097	0.0095	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1181672)											
WP2325930-005	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0218	0.0212	3.21%	20%	----
Cyanides (QC Lot: 1186745)											
WP2325932-003	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1186746)											
WP2325932-003	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1186747)											
WP2325932-003	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1181502)											
WP2325933-001	DC-DS	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	16.0	16.3	1.96%	20%	----
Organic / Inorganic Carbon (QC Lot: 1185272)											
WP2325933-005	DL-REF	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	16.3	16.1	1.13%	20%	----
Total Metals (QC Lot: 1181540)											
WP2325731-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1186734)											
WP2325933-001	DC-DS	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00038	0.00036	0.00003	Diff <2x LOR	----
Total Metals (QC Lot: 1186735)											
WP2325933-001	DC-DS	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.039	<0.030	0.009	Diff <2x LOR	----
Total Metals (QC Lot: 1186736)											
WP2325933-001	DC-DS	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.126	0.122	2.45%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00193	0.00203	5.22%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0109	0.0113	3.89%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	16.8	16.5	2.06%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000011	0.000012	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00013	0.00015	0.00002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00066	0.00068	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.318	0.332	4.26%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000086	0.000084	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0020	0.0018	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.50	4.55	1.12%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0213	0.0210	1.48%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000207	0.000203	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00058	0.00062	0.00004	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1186736) - continued											
WP2325933-001	DC-DS	Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.41	1.48	4.97%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00261	0.00287	9.33%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000086	0.000098	0.000013	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	3.63	3.51	3.30%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.81	1.85	2.17%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0326	0.0352	7.95%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00479	0.00495	3.22%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000124	0.000126	1.43%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00060	0.00063	0.00004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00026	<0.00020	0.00006	Diff <2x LOR	----
Total Metals (QC Lot: 1189292)											
WP2325933-004	DUP-01	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1189300)											
WP2325932-010	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1189681)											
WP2325930-005	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00029	0.00026	0.00003	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0702	0.0692	1.33%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.015	0.015	0.0003	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000124	0.0000139	0.0000015	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	76.3	75.6	0.981%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000538	0.000530	1.61%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1189681) - continued											
WP2325930-005	Anonymous	Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00042	0.00041	0.000005	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00044	0.00045	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.079	0.080	0.0008	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0388	0.0383	1.43%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	39.6	39.8	0.384%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0309	0.0320	3.40%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.0101	0.00973	3.72%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00402	0.00409	0.00006	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	8.40	8.27	1.63%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00420	0.00448	6.36%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000453	0.000472	0.000020	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	7.06	7.16	1.40%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	18.2	18.5	1.36%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.243	0.242	0.209%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	7.81	8.04	2.92%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00015	0.00015	0.000001	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.0126	0.0131	3.33%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0016	0.0019	0.0003	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1189682)											
WP2325930-005	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1189683)											
WP2325930-005	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1178653)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1178654)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1179545)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1179549)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1179550)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1184173)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1185683)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1179054)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1179056)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1179059)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1179060)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1181461)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1181672)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	# 0.0046	B
Cyanides (QCLot: 1186745)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1186746)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1186747)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1181502)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1185272)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1181540)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1186734)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1186735)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1186736)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	# 0.00012	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1186736) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1189292)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1189300)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1189681)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1189681) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1189682)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1189683)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1178652)									
pH	----	E108	----	pH units	7 pH units	99.8	98.0	102	----
Physical Tests (QCLot: 1178653)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1178654)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	95.7	85.0	115	----
Physical Tests (QCLot: 1179545)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1179549)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	92.5	85.0	115	----
Physical Tests (QCLot: 1179550)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.0	85.0	115	----
Physical Tests (QCLot: 1184173)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	114	85.0	115	----
Physical Tests (QCLot: 1185683)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	112	85.0	115	----
Anions and Nutrients (QCLot: 1179054)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1179056)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.4	90.0	110	----
Anions and Nutrients (QCLot: 1179059)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.1	90.0	110	----
Anions and Nutrients (QCLot: 1179060)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.8	90.0	110	----
Anions and Nutrients (QCLot: 1181461)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1181672)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	92.9	80.0	120	----
Cyanides (QCLot: 1186745)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	112	80.0	120	----
Cyanides (QCLot: 1186746)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1186746) - continued									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	116	80.0	120	----
Cyanides (QCLot: 1186747)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	118	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1181502)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	105	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1185272)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.0	80.0	120	----
Total Metals (QCLot: 1181540)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Total Metals (QCLot: 1186734)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1186735)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	96.8	80.0	120	----
Total Metals (QCLot: 1186736)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	94.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.8	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.8	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	98.4	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.2	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1186736) - continued									
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	96.8	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	96.9	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.9	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	114	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	97.5	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	108	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	93.3	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	110	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.1	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	91.4	80.0	120	----
Total Metals (QCLot: 1189292)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1189681)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	95.9	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	99.3	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.5	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.3	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	96.8	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	95.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1189681) - continued									
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.3	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	94.8	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.1	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	96.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	95.6	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	98.6	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	90.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.6	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.9	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	95.5	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	99.1	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	98.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.9	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.9	80.0	120	----
Dissolved Metals (QCLot: 1189682)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	95.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	100	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1179054)										
WP2325932-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1179056)										
WP2325932-006	Anonymous	Chloride	16887-00-6	E235.Cl-L	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1179059)										
WP2325932-006	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.53 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1179060)										
WP2325932-006	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.501 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1181461)										
WP2325902-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.103 mg/L	0.1 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1181672)										
WP2325930-006	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.220 mg/L	0.25 mg/L	88.1	70.0	130	----
Cyanides (QCLot: 1186745)										
WP2325932-003	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.293 mg/L	0.25 mg/L	117	75.0	125	----
Cyanides (QCLot: 1186746)										
WP2325932-003	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.152 mg/L	0.125 mg/L	122	75.0	125	----
Cyanides (QCLot: 1186747)										
WP2325932-003	Anonymous	Cyanide, free	----	E339-L	0.152 mg/L	0.125 mg/L	122	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1181502)										
WP2325933-002	SW-10	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1185272)										
WP2326051-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1181540)										
WP2325731-003	Anonymous	Mercury, total	7439-97-6	E508	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----
Total Metals (QCLot: 1186734)										
WP2325933-001	DC-DS	Chromium, total	7440-47-3	E420.Cr-L	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
Total Metals (QCLot: 1186735)										
WP2325933-001	DC-DS	Phosphorus, total	7723-14-0	E420.P-L	9.93 mg/L	10 mg/L	99.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1186736)										
WP2325933-001	DC-DS	Aluminum, total	7429-90-5	E420	0.198 mg/L	0.2 mg/L	98.8	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Barium, total	7440-39-3	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0388 mg/L	0.04 mg/L	97.1	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Boron, total	7440-42-8	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00414 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Copper, total	7440-50-8	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Iron, total	7439-89-6	E420	1.88 mg/L	2 mg/L	94.2	70.0	130	----
		Lead, total	7439-92-1	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0984 mg/L	0.1 mg/L	98.4	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.93 mg/L	10 mg/L	99.3	70.0	130	----
		Potassium, total	7440-09-7	E420	3.93 mg/L	4 mg/L	98.2	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, total	7440-21-3	E420	9.16 mg/L	10 mg/L	91.6	70.0	130	----
		Silver, total	7440-22-4	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	1.84 mg/L	2 mg/L	92.3	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.0 mg/L	20 mg/L	100	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00393 mg/L	0.004 mg/L	98.2	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Tin, total	7440-31-5	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0394 mg/L	0.04 mg/L	98.4	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1186736) - continued										
WP2325933-001	DC-DS	Uranium, total	7440-61-1	E420	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, total	7440-66-6	E420	0.397 mg/L	0.4 mg/L	99.2	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0376 mg/L	0.04 mg/L	94.1	70.0	130	----
Total Metals (QCLot: 1189292)										
WP2325933-005	DL-REF	Mercury, total	7439-97-6	E508	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1189300)										
WP2325933-001	DC-DS	Mercury, dissolved	7439-97-6	E509	0.000108 mg/L	0.0001 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1189681)										
WP2325930-005	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.203 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00942 mg/L	0.01 mg/L	94.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00406 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.02 mg/L	2 mg/L	101	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0383 mg/L	0.04 mg/L	95.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0434 mg/L	0.04 mg/L	108	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.64 mg/L	10 mg/L	96.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1189681) - continued										
WP2325930-005	Anonymous	Silver, dissolved	7440-22-4	E421	0.00393 mg/L	0.004 mg/L	98.2	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.0 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00394 mg/L	0.004 mg/L	98.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.395 mg/L	0.4 mg/L	98.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0433 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1189682)										
WP2325930-005	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1189683)										
WP2325930-005	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.7 mg/L	10 mg/L	107	70.0	130	----

Environmental Division Winnipeg
Work Order Reference
WP2325933

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surch
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200%
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush re holidays and for non-
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer Sampler:

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q			Field pH	Field Temperature	Field Conductivity (ms/cm)
	DC-DS	Oct 7 23	12:45	SW		X			6.16	10.8	89.2
	SW-10	Oct-8-23	9:55	SW		X			7.21	8.8	96.4
	SW-09	Oct 8-23	10:30	SW		X			7.19	8.9	170.7
	Dup-01	Oct 7-23	11:40	SW		X			6.07	12.9	64.7
	DL-REF	Oct 7 -23	11:40	SW		X			6.07	12.9	64.7

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: JM	Date: 10/10/2023	Time: 8:00	Received by:	Date: OCT 11 2023	Time: 9:00	Received by:	Time:

8.8

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2326292**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 13-Oct-2023
C-O-C number	: ----	Issue Date	: 25-Oct-2023 16:09
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Oct-2023 11:00	10-Oct-2023 11:45	10-Oct-2023 12:10	10-Oct-2023 12:40	10-Oct-2023 13:05
						WP2326292-001	WP2326292-002	WP2326292-003	WP2326292-004	WP2326292-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.12	7.44	7.49	7.61	7.71
Temperature, field	----	EF001/WP	0.10	°C		11.0	10.5	13.3	13.3	12.5
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		3.8	2.3	2.5	2.4	2.4
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		37.0	38.3	37.1	37.3	37.1
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		37.0	38.3	37.1	37.3	37.1
Conductivity	----	E100/WP	1.0	µS/cm		94.2	84.3	86.5	87.2	87.4
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		42.8	38.5	39.8	39.4	39.2
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		44.6	40.1	41.5	41.2	39.3
pH	----	E108/WP	0.10	pH units		7.42	7.62	7.61	7.58	7.62
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		77.6	58.6	55.9	53.2	51.6
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		9.2	6.6	3.4	2.5	4.1
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0269	0.0054	0.0123	0.0232	<0.0050
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.50	0.72	1.50	1.68	1.44
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0756	0.0358	0.0437	0.0376	0.0197
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0772	0.0358	0.0437	0.0386	0.0197
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0016	<0.0010	<0.0010	0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0136	0.0284	0.0258	0.0262	0.0294
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		3.88	2.00	2.85	2.98	2.82
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Oct-2023 11:00	10-Oct-2023 11:45	10-Oct-2023 12:10	10-Oct-2023 12:40	10-Oct-2023 13:05
						WP2326292-001	WP2326292-002	WP2326292-003	WP2326292-004	WP2326292-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		16.4	10.6	11.4	11.4	11.6
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.411	0.359	0.102	0.0860	0.125
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00029	<0.00010	0.00017	0.00017	0.00017
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00858	0.00197	0.00625	0.00632	0.00632
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0117	0.0132	0.00888	0.00929	0.00927
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000063	0.0000056	<0.0000050	<0.0000050	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.1	11.3	11.6	11.6	11.0
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000043	0.000044	0.000010	<0.000010	0.000015
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00086	0.00063	0.00032	0.00035	0.00035
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00086	0.00063	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00026	0.00015	<0.00010	<0.00010	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00181	0.00130	0.00129	0.00132	0.00133
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.526	0.322	0.109	0.092	0.120
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000205	0.000164	0.000064	0.000051	0.000074
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0019	0.0011	0.0011	0.0010	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.49	2.89	3.04	2.96	2.87
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0201	0.0138	0.00889	0.00793	0.00823
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000262	0.000268	0.000227	0.000242	0.000226
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00182	0.00070	0.00090	0.00092	0.00092
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.045	0.032	0.031	0.041	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.27	1.12	1.07	1.08	1.08
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00242	0.00256	0.00184	0.00180	0.00183

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Oct-2023 11:00	10-Oct-2023 11:45	10-Oct-2023 12:10	10-Oct-2023 12:40	10-Oct-2023 13:05
						WP2326292-001	WP2326292-002	WP2326292-003	WP2326292-004	WP2326292-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000142	0.000082	0.000123	0.000099	0.000098
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.58	1.85	1.73	1.87	1.84
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.68	1.46	1.91	1.86	1.80
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0316	0.0241	0.0264	0.0257	0.0262
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.47	0.98	1.46	1.20	1.21
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0178	0.0123	0.00383	0.00313	0.00490
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000141	0.000092	0.000093	0.000096	0.000095
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00129	0.00100	0.00069	0.00069	0.00073
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00040	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0637	0.0626	0.0165	0.0162	0.0170
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00029	<0.00010	0.00016	0.00016	0.00016
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00753	0.00180	0.00580	0.00580	0.00592
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00927	0.0106	0.00858	0.00888	0.00872
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.0	11.1	11.4	11.1	11.3
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00024	0.00013	0.00016	0.00015	0.00014
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Oct-2023 11:00	10-Oct-2023 11:45	10-Oct-2023 12:10	10-Oct-2023 12:40	10-Oct-2023 13:05
						WP2326292-001	WP2326292-002	WP2326292-003	WP2326292-004	WP2326292-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00135	0.00100	0.00108	0.00112	0.00114
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.135	0.045	0.024	0.020	0.019
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000052	<0.000050	<0.000050	0.000168 RRV	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.12	2.61	2.75	2.83	2.66
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00784	0.00120	0.00060	0.00066	0.00058
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000257	0.000211	0.000227	0.000215	0.000204
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00129	<0.00050	0.00070	0.00072	0.00072
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.21	1.01	1.03	1.04	1.04
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00176	0.00186	0.00173	0.00167	0.00173
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000082	0.000076	0.000103	0.000076	0.000093
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.68	1.22	1.50	1.49	1.54
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.64	1.38	1.78	1.68	1.70
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0319	0.0245	0.0256	0.0258	0.0261
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.59	1.02	1.23	1.05	1.39
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00267	0.00164	0.00037	0.00036	0.00038
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000112	0.000078	0.000084	0.000089	0.000083
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00053	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00032	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: **Water** (Matrix: **Water**)					Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	10-Oct-2023 11:00	10-Oct-2023 11:45	10-Oct-2023 12:10	10-Oct-2023 12:40	10-Oct-2023 13:05
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*		**WP2326292-001**	**WP2326292-002**	**WP2326292-003**	**WP2326292-004**	**WP2326292-005**
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	CR-FDP	CR-DS	CR-REF	SW-DUP02	SW-TRAVEL-BLANK
				Client sampling date / time	10-Oct-2023 10:15	10-Oct-2023 10:45	10-Oct-2023 14:40	10-Oct-2023 14:40	10-Oct-2023 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2326292-006	WP2326292-007	WP2326292-008	WP2326292-009	WP2326292-010
					Result	Result	Result	Result	Result
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.88	7.62	7.73	7.73	----
Temperature, field	----	EF001/WP	0.10	°C	10.9	11.0	11.4	11.4	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.6	3.5	2.7	2.7	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	32.4	34.4	30.8	31.4	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	32.4	34.4	30.8	31.4	<1.0
Conductivity	----	E100/WP	1.0	µS/cm	86.8	89.8	84.2	84.7	<1.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	37.5	38.5	36.7	36.8	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	39.9	41.8	38.0	38.7	<0.50
pH	----	E108/WP	0.10	pH units	7.45	7.43	7.50	7.52	5.29
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	63.6	55.6	62.9	62.6	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	8.5	8.4	5.0	17.4	<1.0
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0245	0.0238	0.0184	0.0168	0.0107
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	2.41	2.39	2.43	2.48	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0927	0.0864	0.0746	0.0722	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0945	0.0864	0.0762	0.0739	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0018	<0.0010	0.0016	0.0017	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0305	0.0130	0.0271	0.0343	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	4.22	4.11	4.51	4.50	<0.30
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-DS	CR-REF	SW-DUP02	SW-TRAVEL-BLANK
					Client sampling date / time	10-Oct-2023 10:15	10-Oct-2023 10:45	10-Oct-2023 14:40	10-Oct-2023 14:40	10-Oct-2023 00:00
						WP2326292-006	WP2326292-007	WP2326292-008	WP2326292-009	WP2326292-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		15.2	16.0	15.5	15.3	0.74
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.325	0.379	0.244	0.386	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00032	0.00032	0.00032	0.00032	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00951	0.00929	0.00986	0.00979	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0105	0.0108	0.00953	0.0104	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000051	<0.0000050	<0.0000050	0.0000065	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.0	11.6	10.7	10.6	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000037	0.000037	0.000024	0.000045	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00075	0.00080	0.00059	0.00083	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00075	0.00080	0.00059	0.00083	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00021	0.00023	0.00017	0.00023	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00177	0.00181	0.00168	0.00206	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.408	0.442	0.284	0.449	<0.010
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000174	0.000187	0.000130	0.000245	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0016	0.0014	0.0014	<0.0010
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.02	3.13	2.74	2.97	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0140	0.0160	0.0101	0.0131	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000235	0.000241	0.000244	0.000216	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00181	0.00187	0.00161	0.00183	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.038	0.031	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.13	1.23	1.04	1.15	<0.050
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00235	0.00236	0.00211	0.00235	<0.00020
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000109	0.000131	0.000101	0.000119	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.15	3.29	2.85	3.07	<0.10

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-DS	CR-REF	SW-DUP02	SW-TRAVEL-BLANK
					Client sampling date / time	10-Oct-2023 10:15	10-Oct-2023 10:45	10-Oct-2023 14:40	10-Oct-2023 14:40	10-Oct-2023 00:00
						WP2326292-006	WP2326292-007	WP2326292-008	WP2326292-009	WP2326292-010
						Result	Result	Result	Result	Result
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.50	2.66	2.34	2.39	<0.050
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0308	0.0308	0.0292	0.0291	<0.00020
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.73	1.79	1.76	1.60	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0152	0.0175	0.0102	0.0182	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000126	0.000133	0.000121	0.000143	<0.000010
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00115	0.00119	0.00097	0.00127	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00031	0.00038	0.00034	0.00032	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0416	0.0448	0.0411	0.0381	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00030	0.00030	0.00031	0.00032	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00843	0.00810	0.00878	0.00918	<0.00010
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00804	0.00828	0.00812	0.00775	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.5	10.8	10.3	10.3	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00020	0.00021	0.00018	0.00017	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00133	0.00139	0.00139	0.00145	0.00032
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.089	0.091	0.072	0.073	<0.010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-DS	CR-REF	SW-DUP02	SW-TRAVEL-BLANK
					Client sampling date / time	10-Oct-2023 10:15	10-Oct-2023 10:45	10-Oct-2023 14:40	10-Oct-2023 14:40	10-Oct-2023 00:00
						WP2326292-006	WP2326292-007	WP2326292-008	WP2326292-009	WP2326292-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.73	2.80	2.67	2.68	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00423	0.00437	0.00314	0.00332	<0.00010
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000208	0.000181	0.000204	0.000202	<0.000050
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00126	0.00129	0.00130	0.00131	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.07	1.08	1.00	1.02	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00166	0.00164	0.00156	0.00154	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000114	0.000115	0.000099	0.000135	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.49	2.48	2.30	2.31	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.28	2.43	2.27	2.36	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0296	0.0289	0.0274	0.0296	<0.00020
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.96	1.67	1.91	1.79	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00143	0.00184	0.00144	0.00135	<0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000101	0.000104	0.000107	0.000109	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0012	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2326292**	Page	: 1 of 37
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Oct-2023 09:00
PO	: ----	Issue Date	: 25-Oct-2023 16:03
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-DS	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-01	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-02	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-03	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-04	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-05	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP02	E298	10-Oct-2023	16-Oct-2023	28 days	6 days	✓	16-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TRAVEL-BLANK	E298	10-Oct-2023	16-Oct-2023	28 days	7 days	✓	16-Oct-2023	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-01	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-02	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-05	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL-BLANK	E235.Cl-L	10-Oct-2023	13-Oct-2023	28 days	4 days	✓	13-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-01	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-02	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-03	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-04	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-05	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP02	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TRAVEL-BLANK	E235.NO3-L	10-Oct-2023	13-Oct-2023	7 days	4 days	✓	13-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-DS	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-FDP	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-01	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-02	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-05	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	3 days	✓	13-Oct-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL-BLANK	E235.NO2-L	10-Oct-2023	13-Oct-2023	7 days	4 days	✓	13-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-01	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-02	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-03	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-04	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-05	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-DUP02	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TRAVEL-BLANK	E235.SO4	10-Oct-2023	13-Oct-2023	28 days	4 days	✓	13-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-REF	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-01	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-02	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-03	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-04	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
PL-05	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-DUP02	E372-U	10-Oct-2023	18-Oct-2023	28 days	8 days	✓	19-Oct-2023	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TRAVEL-BLANK	E372-U	10-Oct-2023	18-Oct-2023	28 days	9 days	✓	19-Oct-2023	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL-BLANK	E339-L	10-Oct-2023	19-Oct-2023	14 days	10 days	✓	19-Oct-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E339-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL-BLANK	E333-L	10-Oct-2023	19-Oct-2023	14 days	10 days	✓	19-Oct-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E333-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL-BLANK	E336-L	10-Oct-2023	19-Oct-2023	14 days	10 days	✓	19-Oct-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-05	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-DUP02	E336-L	10-Oct-2023	19-Oct-2023	14 days	9 days	✓	19-Oct-2023	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-DS	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-FDP	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-REF	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-01	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-02	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-03	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-04	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-05	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-DUP02	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TRAVEL-BLANK	E421.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-DS	E509	10-Oct-2023	20-Oct-2023	28 days	10 days	✓	20-Oct-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	10-Oct-2023	20-Oct-2023	28 days	10 days	✓	20-Oct-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	10-Oct-2023	20-Oct-2023	28 days	10 days	✓	20-Oct-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-03	E509	10-Oct-2023	20-Oct-2023	28 days	10 days	✓	20-Oct-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-04	E509	10-Oct-2023	20-Oct-2023	28 days	10 days	✓	20-Oct-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-05	E509	10-Oct-2023	20-Oct-2023	28 days	10 days	✓	20-Oct-2023	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP02	E509	10-Oct-2023	20-Oct-2023	28 days	10 days	✓	20-Oct-2023	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TRAVEL-BLANK	E509	10-Oct-2023	20-Oct-2023	28 days	11 days	✓	20-Oct-2023	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-01	E509	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-02	E509	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-01	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-02	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-03	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-04	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-05	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP02	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TRAVEL-BLANK	E421	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-01	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-02	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-03	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-04	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-05	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP02	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TRAVEL-BLANK	E421.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	11 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-DS	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-FDP	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-REF	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-01	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-02	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-03	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-04	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-05	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-DUP02	EF001	10-Oct-2023	----	----	----		13-Oct-2023	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-DS	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-01	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-02	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-03	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-04	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-05	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP02	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TRAVEL-BLANK	E358-L	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-DS	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-01	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-02	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-03	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-04	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-05	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP02	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TRAVEL-BLANK	E283	10-Oct-2023	18-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-01	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-02	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-03	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-04	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-05	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-DUP02	E290	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TRAVEL-BLANK	E290	10-Oct-2023	13-Oct-2023	14 days	4 days	✓	13-Oct-2023	14 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-01	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-02	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-03	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-04	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-05	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP02	E100	10-Oct-2023	13-Oct-2023	28 days	3 days	✓	13-Oct-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TRAVEL-BLANK	E100	10-Oct-2023	13-Oct-2023	28 days	4 days	✓	13-Oct-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-01	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-02	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-03	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-04	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-05	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP02	E108	10-Oct-2023	13-Oct-2023	14 days	3 days	✓	13-Oct-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TRAVEL-BLANK	E108	10-Oct-2023	13-Oct-2023	14 days	4 days	✓	13-Oct-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-01	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-02	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-03	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-04	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-05	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP02	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TRAVEL-BLANK	E162-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-01	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-02	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-03	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-04	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-05	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP02	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TRAVEL-BLANK	E160-L	10-Oct-2023	----	----	----		16-Oct-2023	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-01	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-02	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-03	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-04	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-05	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP02	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVEL-BLANK	E420.Cr-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	11 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-01	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-02	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-03	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-04	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-05	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP02	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TRAVEL-BLANK	E508	10-Oct-2023	17-Oct-2023	28 days	7 days	✓	17-Oct-2023	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-01	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-02	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-03	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-04	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-05	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP02	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVEL-BLANK	E420	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-01	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-02	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-03	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-04	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-05	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP02	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TRAVEL-BLANK	E420.P-L	10-Oct-2023	20-Oct-2023	180 days	10 days	✓	20-Oct-2023	180 days	11 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1191061	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1183751	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1187865	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1184087	1	15	6.6	5.0	✓
Conductivity in Water	E100	1183750	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1196688	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1196690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1188711	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1196689	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1194099	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1184088	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1184089	1	16	6.2	5.0	✓
pH by Meter	E108	1183749	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1184086	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1186633	2	31	6.4	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1196161	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1194097	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1189292	2	36	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1196160	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1192011	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1196162	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1186631	2	33	6.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1194098	1	17	5.8	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1191061	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1183751	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1187865	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1184087	1	15	6.6	5.0	✓
Conductivity in Water	E100	1183750	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1196688	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1196690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1188711	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1196689	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1194099	1	17	5.8	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1184088	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1184089	1	16	6.2	5.0	✓
pH by Meter	E108	1183749	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1184086	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1186633	2	31	6.4	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1196161	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1194097	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1189292	2	36	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1196160	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1192011	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1196162	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1186631	2	33	6.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1194098	1	17	5.8	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1191061	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1183751	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1187865	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1184087	1	15	6.6	5.0	✓
Conductivity in Water	E100	1183750	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1196688	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1196690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1188711	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1196689	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1194099	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1184088	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1184089	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1184086	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1186633	2	31	6.4	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1196161	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1194097	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1189292	2	36	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1196160	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1192011	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1196162	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1186631	2	33	6.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1194098	1	17	5.8	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1187865	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1184087	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1196688	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1196690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1188711	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1196689	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1194099	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1184088	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1184089	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1184086	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1196161	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1194097	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1189292	2	36	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1196160	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1192011	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1196162	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1194098	1	17	5.8	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2326292**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 13-Oct-2023
C-O-C number	: ----	Issue Date	: 25-Oct-2023 16:13
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1183749)											
WP2326292-002	PL-02	pH	----	E108	0.10	pH units	7.62	7.61	0.131%	4%	----
Physical Tests (QC Lot: 1183750)											
WP2326292-002	PL-02	Conductivity	----	E100	1.0	µS/cm	84.3	84.3	0.00%	10%	----
Physical Tests (QC Lot: 1183751)											
WP2326292-002	PL-02	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	38.3	38.4	0.261%	20%	----
Physical Tests (QC Lot: 1186631)											
WP2326252-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	9.2	9.8	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1186632)											
WP2326292-007	CR-DS	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	8.4	8.9	0.5	Diff <2x LOR	----
Physical Tests (QC Lot: 1186633)											
WP2326252-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	877	872	0.629%	20%	----
Physical Tests (QC Lot: 1186634)											
WP2326292-010	SW-TRAVEL-BLANK	Solids, total dissolved [TDS]	----	E162-L	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1191061)											
WP2326291-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.6	3.3	0.3	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1184086)											
WP2326289-004	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	2.84	2.82	0.02	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1184087)											
WP2326289-004	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.69	2.65	1.24%	20%	----
Anions and Nutrients (QC Lot: 1184088)											
WP2326289-004	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.493	0.492	0.151%	20%	----
Anions and Nutrients (QC Lot: 1184089)											
WP2326289-004	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0242	0.0242	0.0661%	20%	----
Anions and Nutrients (QC Lot: 1187865)											
WP2326317-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0323	0.0289	0.0034	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1192011)											
WP2326289-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0429	0.0413	3.71%	20%	----
Cyanides (QC Lot: 1194097)											
WP2326289-004	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0012	0.0012	0.00001	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1194098)											
WP2326289-004	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1194099)											
WP2326289-004	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1188711)											
WP2326289-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	20.3	21.6	5.92%	20%	----
Total Metals (QC Lot: 1189292)											
WP2325933-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1189296)											
WP2326292-007	CR-DS	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1196160)											
WP2326289-005	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.355	0.340	4.08%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00016	0.00016	0.000004	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00490	0.00482	1.72%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00576	0.00565	2.01%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000097	0.0000077	0.0000019	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	5.18	5.03	2.86%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00062	0.00056	0.00006	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00016	0.00015	0.00002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00058	0.00062	0.00003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.512	0.520	1.65%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000180	0.000172	0.000008	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0011	<0.0010	0.00008	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.82	1.88	3.50%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0120	0.0121	0.908%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000088	0.000102	0.000014	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00070	0.00073	0.00003	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.568	0.552	2.78%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00180	0.00177	0.00003	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000124	0.000130	0.000005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1196160) - continued											
WP2326289-005	Anonymous	Silicon, total	7440-21-3	E420	0.10	mg/L	1.53	1.55	1.21%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.52	1.51	0.710%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0161	0.0162	1.05%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	0.62	0.12	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00448	0.00458	2.18%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000046	0.000048	0.000002	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00076	0.00074	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00026	0.00023	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1196161)											
WP2326289-005	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00062	0.00056	0.00006	Diff <2x LOR	----
Total Metals (QC Lot: 1196162)											
WP2326289-005	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1189300)											
WP2325932-010	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196688)											
WP2326289-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00037	0.00035	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196689)											
WP2326289-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196690)											
WP2326289-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0443	0.0460	3.80%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00245	0.00252	2.65%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0227	0.0226	0.493%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000063	0.0000055	0.0000008	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1196690) - continued											
WP2326289-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.050	mg/L	28.5	27.0	5.29%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00096	0.00111	0.00014	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.409	0.428	4.58%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000053	0.000059	0.000006	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0024	0.0025	0.00004	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	6.93	6.97	0.592%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0284	0.0293	3.14%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000311	0.000322	0.000011	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00092	0.00095	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.22	2.24	1.01%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00270	0.00257	5.10%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000094	0.000072	0.000022	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	7.08	7.01	0.946%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.63	2.66	0.937%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0506	0.0507	0.130%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.69	0.74	0.05	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00151	0.00159	0.00008	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00017	0.00017	0.000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000308	0.000318	3.27%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00058	0.00057	0.000004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00040	0.00039	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196846)											
WP2326292-003	PL-03	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1183750)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1183751)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1186631)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1186632)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1186633)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1186634)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1191061)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1184086)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1184087)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1184088)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1184089)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1187865)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1192011)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1194097)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1194098)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1194099)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1188711)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1189292)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1189296)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1196160)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1196160) - continued						
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1196161)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1196162)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1189300)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1196688)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1196689)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1196690)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1196690) - continued						
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1196846)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1183749)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1183750)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1183751)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	94.7	85.0	115	----
Physical Tests (QCLot: 1186631)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	106	85.0	115	----
Physical Tests (QCLot: 1186632)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1186633)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.8	85.0	115	----
Physical Tests (QCLot: 1186634)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.2	85.0	115	----
Physical Tests (QCLot: 1191061)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	111	85.0	115	----
Anions and Nutrients (QCLot: 1184086)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1184087)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1184088)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1184089)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1187865)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	109	85.0	115	----
Anions and Nutrients (QCLot: 1192011)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.4	80.0	120	----
Cyanides (QCLot: 1194097)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	90.3	80.0	120	----
Cyanides (QCLot: 1194098)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1194098) - continued									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	107	80.0	120	----
Cyanides (QCLot: 1194099)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.1	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1188711)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.9	80.0	120	----
Total Metals (QCLot: 1189292)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Total Metals (QCLot: 1189296)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	104	80.0	120	----
Total Metals (QCLot: 1196160)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	98.4	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	97.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	91.0	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.2	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.3	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.7	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	109	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	98.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.4	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.8	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1196160) - continued									
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	104	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.3	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	109	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	109	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.1	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	113	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.0	80.0	120	----
Total Metals (QCLot: 1196161)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1196162)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1196688)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1196690)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.7	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	91.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1196690) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.5	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	94.3	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.6	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.4	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	88.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	100.0	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	109	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.3	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.5	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	99.7	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	96.1	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1184086)										
WP2326289-004	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1184087)										
WP2326289-004	Anonymous	Chloride	16887-00-6	E235.Cl-L	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1184088)										
WP2326289-004	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.55 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1184089)										
WP2326289-004	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.515 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1187865)										
WP2326317-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.112 mg/L	0.1 mg/L	112	75.0	125	----
Anions and Nutrients (QCLot: 1192011)										
WP2326289-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.244 mg/L	0.25 mg/L	97.7	70.0	130	----
Cyanides (QCLot: 1194097)										
WP2326289-004	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.228 mg/L	0.25 mg/L	91.0	75.0	125	----
Cyanides (QCLot: 1194098)										
WP2326289-004	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.140 mg/L	0.125 mg/L	112	75.0	125	----
Cyanides (QCLot: 1194099)										
WP2326289-004	Anonymous	Cyanide, free	----	E339-L	0.132 mg/L	0.125 mg/L	106	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1188711)										
WP2326289-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1189292)										
WP2325933-005	Anonymous	Mercury, total	7439-97-6	E508	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----
Total Metals (QCLot: 1189296)										
WP2326292-008	CR-REF	Mercury, total	7439-97-6	E508	0.000106 mg/L	0.0001 mg/L	106	70.0	130	----
Total Metals (QCLot: 1196160)										
WP2326289-005	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1196160) - continued										
WP2326289-005	Anonymous	Beryllium, total	7440-41-7	E420	0.0388 mg/L	0.04 mg/L	97.1	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0109 mg/L	0.01 mg/L	109	70.0	130	----
		Boron, total	7440-42-8	E420	0.094 mg/L	0.1 mg/L	94.4	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00418 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Copper, total	7440-50-8	E420	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		Iron, total	7439-89-6	E420	1.99 mg/L	2 mg/L	99.5	70.0	130	----
		Lead, total	7439-92-1	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0930 mg/L	0.1 mg/L	93.0	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.95 mg/L	10 mg/L	99.5	70.0	130	----
		Potassium, total	7440-09-7	E420	4.14 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0445 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, total	7440-21-3	E420	9.96 mg/L	10 mg/L	99.6	70.0	130	----
		Silver, total	7440-22-4	E420	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, total	7440-23-5	E420	2.09 mg/L	2 mg/L	105	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.0 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00425 mg/L	0.004 mg/L	106	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0227 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, total	7440-31-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0390 mg/L	0.04 mg/L	97.4	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00447 mg/L	0.004 mg/L	112	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.410 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1196161)										
WP2326289-005	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
Total Metals (QCLot: 1196162)										
WP2326289-005	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	9.95 mg/L	10 mg/L	99.5	70.0	130	----
Dissolved Metals (QCLot: 1189300)										
WP2325933-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000108 mg/L	0.0001 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1196688)										
WP2326289-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0376 mg/L	0.04 mg/L	94.1	70.0	130	----
Dissolved Metals (QCLot: 1196689)										
WP2326289-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	9.87 mg/L	10 mg/L	98.7	70.0	130	----
Dissolved Metals (QCLot: 1196690)										
WP2326289-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.179 mg/L	0.2 mg/L	89.6	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0352 mg/L	0.04 mg/L	88.1	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00968 mg/L	0.01 mg/L	96.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.084 mg/L	0.1 mg/L	83.5	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00366 mg/L	0.004 mg/L	91.4	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00907 mg/L	0.01 mg/L	90.7	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0376 mg/L	0.04 mg/L	94.1	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0183 mg/L	0.02 mg/L	91.3	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0177 mg/L	0.02 mg/L	88.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.77 mg/L	2 mg/L	88.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0822 mg/L	0.1 mg/L	82.2	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0366 mg/L	0.04 mg/L	91.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.87 mg/L	10 mg/L	98.7	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.94 mg/L	4 mg/L	98.4	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1196690) - continued										
WP2326289-001	Anonymous	Silicon, dissolved	7440-21-3	E421	8.65 mg/L	10 mg/L	86.5	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00350 mg/L	0.004 mg/L	87.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.1 mg/L	20 mg/L	95.3	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00376 mg/L	0.004 mg/L	94.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0181 mg/L	0.02 mg/L	90.4	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0367 mg/L	0.04 mg/L	91.8	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0190 mg/L	0.02 mg/L	94.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0962 mg/L	0.1 mg/L	96.2	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.372 mg/L	0.4 mg/L	93.0	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0397 mg/L	0.04 mg/L	99.2	70.0	130	----
Dissolved Metals (QCLot: 1196846)										
WP2326292-004	PL-04	Mercury, dissolved	7439-97-6	E509	0.0000964 mg/L	0.0001 mg/L	96.4	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2326292
Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) R
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐N/A	☐4 day [P4] if received by 3pm M-F - 20% rush surcharge m
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐3 day [P3] if received by 3pm M-F - 25% rush surcharge m
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐2 day [P2] if received by 3pm M-F - 50% rush surcharge mi
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐1 day [E] if received by 3pm M-F - 100% rush surcharge mi
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐Same day [E2] if received by 10am M-S - 200% rush surcha
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on holidays and for non-routine te
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	**Analysis Request**
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:**

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q	SW-M		Field pH	Field Temperature	Field Conductivity (us/cm)
	PL-01	10-Oct-23	11:00	water	9	X			7.12	11	75.5
	PL-02	10-Oct-23	11:45	water	9	X			7.44	10.5	66.5
	PL-03	10-Oct-23	12:10	water	9	X			7.49	13.3	74.3
	PL-04	10-Oct-23	12:40	water	9	X			7.61	13.3	74
	PL-05	10-Oct-23	13:05	water	9	X			7.71	12.5	72.6
	CR-FDP	10-Oct-23	10:15	water	9		X		7.88	10.9	70.2
	CR-DS	10-Oct-23	10:45	water	9		X		7.62	11	71.6
	CR-REF	10-Oct-23	14:40	water	9		X		7.73	11.4	65.5
	SW-DUP02	10-Oct-23	14:40	water	9		X		7.73	11.4	65.5
	SW-TRAVEL BLANK	10-Oct-23	n/a	water	9		X		n/a	n/a	n/a

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Date: 10/11/2023	Time:	Received by:	Date: OCT 13 2023	Time: 9:40	Received by:	Time:

13.6

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2326289**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 13-Oct-2023
C-O-C number	: ----	Issue Date	: 25-Oct-2023 16:08
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-08	SW-01	SW-08A	DUP03
					Client sampling date / time	11-Oct-2023 15:05	11-Oct-2023 14:30	11-Oct-2023 12:45	11-Oct-2023 11:40	11-Oct-2023 12:50
						WP2326289-001	WP2326289-002	WP2326289-003	WP2326289-004	WP2326289-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.02	6.96	6.27	6.30	7.27
Temperature, field	----	EF001/WP	0.10	°C		10.0	7.40	8.60	7.40	8.60
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		6.4	6.7	8.1	8.0	8.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		104	85.5	9.7	114	8.9
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		104	85.5	9.7	114	8.9
Conductivity	----	E100/WP	1.0	µS/cm		190	181	35.4	221	35.7
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		99.7	89.9	20.0	106	20.0
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		95.5	95.4	19.1	110	20.4
pH	----	E108/WP	0.10	pH units		7.67	7.62	6.49	7.70	6.45
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		144	168	75.2 RRV	188	76.8 RRV
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		6.5	64.0	2.4	40.6	1.8
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0780	0.0327	0.0134	0.0502	0.0145
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.33	2.63	0.14	2.69	0.15
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.143	0.322	<0.0050	0.493	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.145	0.336	<0.0051	0.517	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0022	0.0135	<0.0010	0.0242	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0429	0.122	0.0314	0.102	0.0253
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.99	3.94	0.33	2.84	0.35
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0013	0.0011	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0011	0.0017	0.0012	0.0012	0.0011

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-08	SW-01	SW-08A	DUP03
					Client sampling date / time	11-Oct-2023 15:05	11-Oct-2023 14:30	11-Oct-2023 12:45	11-Oct-2023 11:40	11-Oct-2023 12:50
						WP2326289-001	WP2326289-002	WP2326289-003	WP2326289-004	WP2326289-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0011	0.0012	0.0011	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		20.3	26.5	40.3	23.4	41.7
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.358	4.14	0.342	2.73	0.355
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00013	0.00017	<0.00010	0.00016
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00269	0.00384	0.00484	0.00321	0.00490
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0238	0.0628	0.00622	0.0642	0.00576
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000117	<0.000020	0.000077	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000082	0.0000245	0.0000076	0.0000211	0.0000097
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		28.2	25.6	4.95	30.1	5.18
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000030	0.000533	<0.000010	0.000322	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00087	0.00817	0.00064	0.00514	0.00062
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00087	0.00817	0.00064	0.00514	0.00062
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00022	0.00173	0.00017	0.00130	0.00016
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00139	0.00656	0.00065	0.00519	0.00058
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.973	5.30	0.556	3.40	0.512
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000210	0.00183	0.000180	0.00132	0.000180
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0027	0.0058	<0.0010	0.0051	0.0011
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		6.10	7.65	1.63	8.53	1.82
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0544	0.100	0.0138	0.108	0.0120
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000095	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000365	0.000563	0.000085	0.000660	0.000088
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00126	0.00626	0.00075	0.00454	0.00070
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.032	0.103	<0.030	0.080	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.103	<0.050	0.080	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.99	2.85	0.514	3.25	0.568
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00294	0.00977	0.00181	0.00743	0.00180

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-08	SW-01	SW-08A	DUP03
					Client sampling date / time	11-Oct-2023 15:05	11-Oct-2023 14:30	11-Oct-2023 12:45	11-Oct-2023 11:40	11-Oct-2023 12:50
						WP2326289-001	WP2326289-002	WP2326289-003	WP2326289-004	WP2326289-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000082	0.000117	0.000136	0.000193	0.000124
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		7.07	14.0	1.50	10.3	1.53
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000036	0.000046	<0.000010	0.000046	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.52	3.90	1.27	4.22	1.52
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0558	0.0621	0.0169	0.0681	0.0161
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.60	1.74	<0.50	1.32	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000056	<0.000010	0.000034	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00011	0.00064	<0.00010	0.00041	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	0.00013	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0121	0.187	0.00518	0.123	0.00448
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00027	0.00028	<0.00010	0.00031	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000326	0.000554	0.000044	0.000640	0.000046
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00115	0.00932	0.00073	0.00631	0.00076
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0153	<0.0030	0.0085	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00052	0.00180	0.00026	0.00156	0.00026
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0443	0.0709	0.329	0.0946	0.313
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00015	<0.00010	0.00014
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00245	0.00232	0.00484	0.00223	0.00482
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0227	0.0264	0.00601	0.0405	0.00591
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	0.011	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000063	0.0000058	0.0000092	0.0000076	0.0000064
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		28.5	24.5	5.13	29.4	5.22
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00037	0.00063	0.00053	0.00047	0.00052
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00063	0.00053	<0.00050	0.00052
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00021	0.00015	0.00023	0.00014

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-08	SW-01	SW-08A	DUP03
					Client sampling date / time	11-Oct-2023 15:05	11-Oct-2023 14:30	11-Oct-2023 12:45	11-Oct-2023 11:40	11-Oct-2023 12:50
						WP2326289-001	WP2326289-002	WP2326289-003	WP2326289-004	WP2326289-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00096	0.00182	0.00055	0.00187	0.00056
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.409	0.253	0.452	0.277	0.444
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000053	<0.000050	0.000176	0.000091	0.000153
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0024	0.0026	<0.0010	0.0030	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		6.93	6.98	1.74	8.03	1.69
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0284	0.0502	0.0104	0.0692	0.0100
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000311	0.000444	0.000073	0.000527	0.000066
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00092	0.00169	0.00071	0.00164	0.00066
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		2.22	2.36	0.572	3.03	0.554
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00270	0.00214	0.00184	0.00262	0.00186
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000094	0.000114	0.000126	0.000129	0.000122
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		7.08	5.80	1.48	5.82	1.40
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.63	4.01	1.45	4.01	1.41
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0506	0.0519	0.0161	0.0618	0.0157
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.69	1.68	<0.50	1.44	0.55
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00016	<0.00010	0.00019	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00151	0.00292	0.00413	0.00706	0.00384
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00017	0.00025	<0.00010	0.00033	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000308	0.000416	0.000047	0.000583	0.000045
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00058	0.00084	0.00067	0.00086	0.00062
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0088	0.0022	<0.0010	0.0021
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00040	0.00072	0.00033	0.00091	0.00032
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-08	SW-01	SW-08A	DUP03
					Client sampling date / time	11-Oct-2023 15:05	11-Oct-2023 14:30	11-Oct-2023 12:45	11-Oct-2023 11:40	11-Oct-2023 12:50
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326289-001	WP2326289-002	WP2326289-003	WP2326289-004	WP2326289-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Laboratory	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)									
				Client sample ID	BLANK03	----	----	----	----
				Client sampling date / time	11-Oct-2023 13:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2326289-006	--------	--------	--------	--------
					Result	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	<1.0	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	<0.50	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	<0.50	----	----	----	----
pH	----	E108/WP	0.10	pH units	5.29	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	<3.0	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	<1.0	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	<0.0050	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	<0.10	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	<0.0020	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	<0.30	----	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	----	----	----	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	<0.50	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	<0.0030	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK03	----	----	----	----
					Client sampling date / time	11-Oct-2023 13:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326289-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		<0.0050	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		<0.10	----	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK03	----	----	----	----
					Client sampling date / time	11-Oct-2023 13:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326289-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		<0.0050	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)									
				Client sample ID	BLANK03	----	----	----	----
				Client sampling date / time	11-Oct-2023 13:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2326289-006	--------	--------	--------	--------
					Result	----	----	----	----
Dissolved Metals									
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L	<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L	<0.000050	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L	<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L	<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L	<0.000050	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L	<0.050	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L	<0.50	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L	<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L	0.00041 RRV	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L	<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L	<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L	<0.000010	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L	<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L	<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L	<0.00030	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-	Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-	Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2326289**	Page	: 1 of 26
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Oct-2023 09:00
PO	: ----	Issue Date	: 25-Oct-2023 16:10
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK03	E298	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	16-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP03	E298	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	16-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	16-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	16-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	16-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08A	E298	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	16-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK03	E235.Cl-L	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP03	E235.Cl-L	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.Cl-L	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.Cl-L	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.Cl-L	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.Cl-L	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK03	E235.NO3-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP03	E235.NO3-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO3-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.NO3-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO3-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BLANK03	E235.NO2-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP03	E235.NO2-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO2-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO2-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO2-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO2-L	11-Oct-2023	13-Oct-2023	7 days	2 days	✓	13-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BLANK03	E235.SO4	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP03	E235.SO4	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-01	E235.SO4	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-04	E235.SO4	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08	E235.SO4	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08A	E235.SO4	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK03	E372-U	11-Oct-2023	18-Oct-2023	28 days	7 days	✓	19-Oct-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP03	E372-U	11-Oct-2023	18-Oct-2023	28 days	7 days	✓	19-Oct-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	11-Oct-2023	18-Oct-2023	28 days	7 days	✓	19-Oct-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	11-Oct-2023	18-Oct-2023	28 days	7 days	✓	19-Oct-2023	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08	E372-U	11-Oct-2023	18-Oct-2023	28 days	7 days	✓	19-Oct-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08A	E372-U	11-Oct-2023	18-Oct-2023	28 days	7 days	✓	19-Oct-2023	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK03	E339-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP03	E339-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E339-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK03	E333-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP03	E333-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	18-Oct-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK03	E336-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP03	E336-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	11-Oct-2023	19-Oct-2023	14 days	8 days	✓	19-Oct-2023	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK03	E421.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP03	E421.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK03	E509	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP03	E509	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08A	E509	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK03	E421	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP03	E421	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08A	E421	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK03	E421.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP03	E421.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-04	E421.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08A	E421.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DUP03	EF001	11-Oct-2023	----	----	----		13-Oct-2023	----	2 days	

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	11-Oct-2023	----	----	----		13-Oct-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	11-Oct-2023	----	----	----		13-Oct-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08	EF001	11-Oct-2023	----	----	----		13-Oct-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08A	EF001	11-Oct-2023	----	----	----		13-Oct-2023	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK03	E358-L	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP03	E358-L	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08	E358-L	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE BLANK03	E283	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	19-Oct-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP03	E283	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	19-Oct-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	19-Oct-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-04	E283	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	19-Oct-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	19-Oct-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08A	E283	11-Oct-2023	18-Oct-2023	14 days	7 days	✓	19-Oct-2023	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK03	E290	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP03	E290	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08A	E290	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK03	E100	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP03	E100	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08A	E100	11-Oct-2023	13-Oct-2023	28 days	2 days	✓	13-Oct-2023	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK03	E108	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP03	E108	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08A	E108	11-Oct-2023	13-Oct-2023	14 days	2 days	✓	13-Oct-2023	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK03	E162-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP03	E162-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08A	E162-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK03	E160-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP03	E160-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	11-Oct-2023	----	----	----		17-Oct-2023	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK03	E420.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP03	E420.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK03	E508	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP03	E508	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	11-Oct-2023	17-Oct-2023	28 days	6 days	✓	17-Oct-2023	28 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK03	E420	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP03	E420	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK03	E420.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP03	E420.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	11-Oct-2023	20-Oct-2023	180 days	9 days	✓	20-Oct-2023	180 days	9 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1191023	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1183787	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1184626	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1183733	1	20	5.0	5.0	✓
Conductivity in Water	E100	1183786	1	12	8.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1196688	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1196690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1188711	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1196689	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1192568	2	31	6.4	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1183736	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1183737	1	19	5.2	5.0	✓
pH by Meter	E108	1183785	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1183732	2	33	6.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1187724	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1196146	1	19	5.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1192569	2	38	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1189292	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1196145	1	26	3.8	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1192011	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1196147	1	19	5.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1191209	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1192567	2	29	6.9	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1191023	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1183787	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1184626	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1183733	2	20	10.0	5.0	✓
Conductivity in Water	E100	1183786	1	12	8.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1196688	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1196690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1188711	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1196689	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1192568	2	31	6.4	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1183736	2	19	10.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1183737	2	19	10.5	5.0	✓
pH by Meter	E108	1183785	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1183732	2	33	6.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1187724	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1196146	2	19	10.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1192569	2	38	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1189292	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1196145	2	26	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1192011	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1196147	2	19	10.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1191209	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1192567	2	29	6.9	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1191023	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1183787	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1184626	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1183733	2	20	10.0	5.0	✓
Conductivity in Water	E100	1183786	1	12	8.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1196688	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1196690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1188711	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1196689	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1192568	2	31	6.4	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1183736	2	19	10.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1183737	2	19	10.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1183732	2	33	6.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1187724	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1196146	2	19	10.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1192569	2	38	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1189292	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1196145	2	26	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1192011	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1196147	2	19	10.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1191209	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1192567	2	29	6.9	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1184626	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1183733	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1196688	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1189300	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1196690	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1188711	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1196689	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1192568	2	31	6.4	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1183736	1	19	5.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1183737	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1183732	2	33	6.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1196146	1	19	5.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1192569	2	38	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1189292	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1196145	1	26	3.8	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1192011	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1196147	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1192567	2	29	6.9	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2326289**	Page	: 1 of 22
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 13-Oct-2023
C-O-C number	: ----	Issue Date	: 25-Oct-2023 16:00
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1183785)											
WP2326289-001	SW-04	pH	----	E108	0.10	pH units	7.67	7.66	0.130%	4%	----
Physical Tests (QC Lot: 1183786)											
WP2326289-001	SW-04	Conductivity	----	E100	1.0	µS/cm	190	189	0.579%	10%	----
Physical Tests (QC Lot: 1183787)											
WP2326289-001	SW-04	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	104	104	0.192%	20%	----
Physical Tests (QC Lot: 1187724)											
WP2326283-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	765	782	2.26%	20%	----
Physical Tests (QC Lot: 1191023)											
HA2300851-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	6.6	5.9	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1191209)											
WP2326255-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1183732)											
WP2326259-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	1.30	1.29	0.004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1184086)											
WP2326289-004	SW-08A	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	2.84	2.82	0.02	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1184087)											
WP2326289-004	SW-08A	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.69	2.65	1.24%	20%	----
Anions and Nutrients (QC Lot: 1184088)											
WP2326289-004	SW-08A	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.493	0.492	0.151%	20%	----
Anions and Nutrients (QC Lot: 1184089)											
WP2326289-004	SW-08A	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0242	0.0242	0.0661%	20%	----
Anions and Nutrients (QC Lot: 1184626)											
WP2326259-004	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0179	0.0165	0.0014	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1192011)											
WP2326289-001	SW-04	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0429	0.0413	3.71%	20%	----
Cyanides (QC Lot: 1192567)											
WP2326289-001	SW-04	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0011	0.0010	0.0001	Diff <2x LOR	----
Cyanides (QC Lot: 1192568)											
WP2326289-001	SW-04	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	0.0012	0.0002	Diff <2x LOR	----
Cyanides (QC Lot: 1192569)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1192569) - continued											
WP2326289-001	SW-04	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0011	0.0010	0.00005	Diff <2x LOR	----
Cyanides (QC Lot: 1194097)											
WP2326289-004	SW-08A	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0012	0.0012	0.00001	Diff <2x LOR	----
Cyanides (QC Lot: 1194098)											
WP2326289-004	SW-08A	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1194099)											
WP2326289-004	SW-08A	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1188711)											
WP2326289-001	SW-04	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	20.3	21.6	5.92%	20%	----
Total Metals (QC Lot: 1189292)											
WP2325933-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1196160)											
WP2326289-005	DUP03	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.355	0.340	4.08%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00016	0.00016	0.000004	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00490	0.00482	1.72%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00576	0.00565	2.01%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000097	0.0000077	0.0000019	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	5.18	5.03	2.86%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00062	0.00056	0.00006	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00016	0.00015	0.00002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00058	0.00062	0.00003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.512	0.520	1.65%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000180	0.000172	0.000008	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0011	<0.0010	0.00008	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.82	1.88	3.50%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0120	0.0121	0.908%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000088	0.000102	0.000014	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00070	0.00073	0.00003	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1196160) - continued											
WP2326289-005	DUP03	Potassium, total	7440-09-7	E420	0.050	mg/L	0.568	0.552	2.78%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00180	0.00177	0.00003	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000124	0.000130	0.000005	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.53	1.55	1.21%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.52	1.51	0.710%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0161	0.0162	1.05%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	0.62	0.12	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00448	0.00458	2.18%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000046	0.000048	0.000002	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00076	0.00074	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00026	0.00023	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1196161)											
WP2326289-005	DUP03	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00062	0.00056	0.00006	Diff <2x LOR	----
Total Metals (QC Lot: 1196162)											
WP2326289-005	DUP03	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1189300)											
WP2325932-010	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196688)											
WP2326289-001	SW-04	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00037	0.00035	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196689)											
WP2326289-001	SW-04	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196690)											
WP2326289-001	SW-04	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0443	0.0460	3.80%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00245	0.00252	2.65%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0227	0.0226	0.493%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1196690) - continued											
WP2326289-001	SW-04	Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000063	0.0000055	0.0000008	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	28.5	27.0	5.29%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00096	0.00111	0.00014	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.409	0.428	4.58%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000053	0.000059	0.000006	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0024	0.0025	0.00004	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	6.93	6.97	0.592%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0284	0.0293	3.14%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000311	0.000322	0.000011	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00092	0.00095	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.22	2.24	1.01%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00270	0.00257	5.10%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000094	0.000072	0.000022	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	7.08	7.01	0.946%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.63	2.66	0.937%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0506	0.0507	0.130%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.69	0.74	0.05	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00151	0.00159	0.00008	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00017	0.00017	0.000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000308	0.000318	3.27%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00058	0.00057	0.000004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00040	0.00039	0.00001	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1183786)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1183787)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1187724)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1191023)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1191209)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1183732)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1183733)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1183736)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1183737)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1184086)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1184087)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1184088)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1184089)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1184626)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1192011)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1192567)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1192568)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1192569)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1194097)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1194098)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1194099)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1188711)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1189292)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1196145)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1196145) - continued						
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1196146)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1196147)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1196160)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1196160) - continued						
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1196161)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1196162)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1189300)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1196688)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1196689)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1196690)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1196690) - continued						
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1183785)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1183786)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1183787)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	94.8	85.0	115	----
Physical Tests (QCLot: 1187724)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.8	85.0	115	----
Physical Tests (QCLot: 1191023)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	114	85.0	115	----
Physical Tests (QCLot: 1191209)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1183732)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1183733)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1183736)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 1183737)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 1184086)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1184087)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1184088)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1184089)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1184626)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1192011)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.4	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1192567)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	90.6	80.0	120	----
Cyanides (QCLot: 1192568)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	93.8	80.0	120	----
Cyanides (QCLot: 1192569)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.3	80.0	120	----
Cyanides (QCLot: 1194097)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	90.3	80.0	120	----
Cyanides (QCLot: 1194098)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	107	80.0	120	----
Cyanides (QCLot: 1194099)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.1	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1188711)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.9	80.0	120	----
Total Metals (QCLot: 1189292)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Total Metals (QCLot: 1196145)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.0	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	115	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	95.8	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	89.1	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	112	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	88.7	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.8	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	96.7	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.5	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	109	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	90.7	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1196145) - continued									
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	94.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	116	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	95.2	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	89.4	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	96.6	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	105	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	105	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	107	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.9	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	94.4	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.4	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Total Metals (QCLot: 1196146)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	96.7	80.0	120	----
Total Metals (QCLot: 1196147)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	89.4	80.0	120	----
Total Metals (QCLot: 1196160)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	98.4	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	97.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	107	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	91.0	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1196160) - continued									
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.3	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.7	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	109	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	98.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.4	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.8	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	104	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.3	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	109	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	109	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.1	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	113	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.0	80.0	120	----
Total Metals (QCLot: 1196161)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1196162)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1196688)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1196690)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.7	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	91.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.5	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.5	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	94.3	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.6	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.4	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	88.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	100.0	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	109	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.3	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1196690) - continued									
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	99.7	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.5	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1183732)										
WP2326259-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	108 mg/L	100 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1184086)										
WP2326289-004	SW-08A	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1184087)										
WP2326289-004	SW-08A	Chloride	16887-00-6	E235.Cl-L	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1184088)										
WP2326289-004	SW-08A	Nitrate (as N)	14797-55-8	E235.NO3-L	2.55 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1184089)										
WP2326289-004	SW-08A	Nitrite (as N)	14797-65-0	E235.NO2-L	0.515 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1184626)										
WP2326259-004	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0998 mg/L	0.1 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 1192011)										
WP2326289-002	SW-08	Phosphorus, total	7723-14-0	E372-U	0.244 mg/L	0.25 mg/L	97.7	70.0	130	----
Cyanides (QCLot: 1192567)										
WP2326289-001	SW-04	Cyanide, weak acid dissociable	----	E336-L	0.132 mg/L	0.125 mg/L	105	75.0	125	----
Cyanides (QCLot: 1192568)										
WP2326289-001	SW-04	Cyanide, free	----	E339-L	0.136 mg/L	0.125 mg/L	109	75.0	125	----
Cyanides (QCLot: 1192569)										
WP2326289-001	SW-04	Cyanide, strong acid dissociable (Total)	----	E333-L	0.230 mg/L	0.25 mg/L	91.9	75.0	125	----
Cyanides (QCLot: 1194097)										
WP2326289-004	SW-08A	Cyanide, strong acid dissociable (Total)	----	E333-L	0.228 mg/L	0.25 mg/L	91.0	75.0	125	----
Cyanides (QCLot: 1194098)										
WP2326289-004	SW-08A	Cyanide, weak acid dissociable	----	E336-L	0.140 mg/L	0.125 mg/L	112	75.0	125	----
Cyanides (QCLot: 1194099)										
WP2326289-004	SW-08A	Cyanide, free	----	E339-L	0.132 mg/L	0.125 mg/L	106	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1188711)										
WP2326289-002	SW-08	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1189292)										
WP2325933-005	Anonymous	Mercury, total	7439-97-6	E508	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----
Total Metals (QCLot: 1196160)										
WP2326289-005	DUP03	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0388 mg/L	0.04 mg/L	97.1	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0109 mg/L	0.01 mg/L	109	70.0	130	----
		Boron, total	7440-42-8	E420	0.094 mg/L	0.1 mg/L	94.4	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00418 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Copper, total	7440-50-8	E420	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		Iron, total	7439-89-6	E420	1.99 mg/L	2 mg/L	99.5	70.0	130	----
		Lead, total	7439-92-1	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0930 mg/L	0.1 mg/L	93.0	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.95 mg/L	10 mg/L	99.5	70.0	130	----
		Potassium, total	7440-09-7	E420	4.14 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0445 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, total	7440-21-3	E420	9.96 mg/L	10 mg/L	99.6	70.0	130	----
		Silver, total	7440-22-4	E420	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, total	7440-23-5	E420	2.09 mg/L	2 mg/L	105	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.0 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00425 mg/L	0.004 mg/L	106	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0227 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, total	7440-31-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1196160) - continued										
WP2326289-005	DUP03	Titanium, total	7440-32-6	E420	0.0390 mg/L	0.04 mg/L	97.4	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00447 mg/L	0.004 mg/L	112	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.410 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1196161)										
WP2326289-005	DUP03	Chromium, total	7440-47-3	E420.Cr-L	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
Total Metals (QCLot: 1196162)										
WP2326289-005	DUP03	Phosphorus, total	7723-14-0	E420.P-L	9.95 mg/L	10 mg/L	99.5	70.0	130	----
Dissolved Metals (QCLot: 1189300)										
WP2325933-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000108 mg/L	0.0001 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1196688)										
WP2326289-001	SW-04	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0376 mg/L	0.04 mg/L	94.1	70.0	130	----
Dissolved Metals (QCLot: 1196689)										
WP2326289-001	SW-04	Phosphorus, dissolved	7723-14-0	E421.P-L	9.87 mg/L	10 mg/L	98.7	70.0	130	----
Dissolved Metals (QCLot: 1196690)										
WP2326289-001	SW-04	Aluminum, dissolved	7429-90-5	E421	0.179 mg/L	0.2 mg/L	89.6	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0352 mg/L	0.04 mg/L	88.1	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00968 mg/L	0.01 mg/L	96.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.084 mg/L	0.1 mg/L	83.5	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00366 mg/L	0.004 mg/L	91.4	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00907 mg/L	0.01 mg/L	90.7	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0376 mg/L	0.04 mg/L	94.1	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0183 mg/L	0.02 mg/L	91.3	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0177 mg/L	0.02 mg/L	88.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.77 mg/L	2 mg/L	88.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0822 mg/L	0.1 mg/L	82.2	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1196690) - continued										
WP2326289-001	SW-04	Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0366 mg/L	0.04 mg/L	91.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.87 mg/L	10 mg/L	98.7	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.94 mg/L	4 mg/L	98.4	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.65 mg/L	10 mg/L	86.5	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00350 mg/L	0.004 mg/L	87.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.1 mg/L	20 mg/L	95.3	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00376 mg/L	0.004 mg/L	94.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0181 mg/L	0.02 mg/L	90.4	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0367 mg/L	0.04 mg/L	91.8	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0190 mg/L	0.02 mg/L	94.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0962 mg/L	0.1 mg/L	96.2	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.372 mg/L	0.4 mg/L	93.0	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0397 mg/L	0.04 mg/L	99.2	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: AP	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-04	11-Oct-23	15:05	Water	9	X			7.02	10	215.5
	SW-08	11-Oct-23	14:30	Water	9	X			6.96	7.4	137.9
	SW-01	11-Oct-23	12:45	Water	9	X			6.27	8.6	27.2
	SW-08a	11-Oct-23	11:40	Water	9	X			6.3	7.4	159/7
	DUP03	11-Oct-23	12:50	Water	9	X			6.27	8.6	27.2
	BLANK03	11-Oct-23	13:00	Water	9	X			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: 12 Oct 2023	Time:	Received by:	Date: OCT 13 2023	Time: 9:00	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2326289

Telephone : +1 204 255 9720

13-6

ALS Canada Ltd.

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CERTIFICATE OF ANALYSIS

Work Order	: **WP2326558**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 17-Oct-2023
C-O-C number	: ----	Issue Date	: 30-Oct-2023 15:02
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: GL-TRIB	BLANK02	----	----	----
					Client sampling date / time: 12-Oct-2023 12:50	12-Oct-2023 13:00	----	----	----
					WP2326558-001	WP2326558-002	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.02	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	9.80	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.8	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	37.6	<1.0	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	37.6	<1.0	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	80.3	<1.0	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	42.3	<0.50	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	40.4	<0.50	----	----	----
pH	----	E108/WP	0.10	pH units	7.35	5.27	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	72.0	<3.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	5.0	<1.0	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0078	<0.0050	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.24	<0.10	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0292	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.68	<0.30	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	GL-TRIB	BLANK02	----	----	----
					Client sampling date / time	12-Oct-2023 12:50	12-Oct-2023 13:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326558-001	WP2326558-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		15.8	<0.50	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.112	0.0038	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00164	<0.00010	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0100	<0.00010	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000058	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.8	<0.050	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000011	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00029	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00011	<0.00010	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00071	<0.00050	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.236	<0.010	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000112	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0017	<0.0010	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.27	<0.0050	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00952	<0.00010	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000209	<0.000050	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00055	<0.00050	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.13	<0.050	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00237	<0.00020	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	GL-TRIB	BLANK02	----	----	----
					Client sampling date / time	12-Oct-2023 12:50	12-Oct-2023 13:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326558-001	WP2326558-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000118	<0.000050	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.47	<0.10	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.51	<0.050	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0256	<0.00020	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00369	<0.00030	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000118	<0.000010	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00077	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0392	<0.0010	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00159	<0.00010	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0107	<0.00010	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.1	<0.050	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00019	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	GL-TRIB	BLANK02	----	----	----
					Client sampling date / time	12-Oct-2023 12:50	12-Oct-2023 13:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326558-001	WP2326558-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00061	<0.00020	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.134	<0.010	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000050	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0023	<0.0010	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.54	<0.0050	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00482	<0.00010	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000229	<0.000050	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.36	<0.050	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00226	<0.00020	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000094	<0.000050	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.64	<0.050	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.51	<0.050	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0285	<0.00020	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.60	<0.50	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00104	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000104	<0.000010	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00051	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	GL-TRIB	BLANK02	----	----	----
					Client sampling date / time	12-Oct-2023 12:50	12-Oct-2023 13:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326558-001	WP2326558-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2326558**	Page	: 1 of 15
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Issue Date	: 30-Oct-2023 15:03
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK02	E298	12-Oct-2023	18-Oct-2023	28 days	6 days	✓	18-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GL-TRIB	E298	12-Oct-2023	18-Oct-2023	28 days	6 days	✓	18-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK02	E235.Cl-L	12-Oct-2023	17-Oct-2023	28 days	5 days	✓	17-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.Cl-L	12-Oct-2023	17-Oct-2023	28 days	5 days	✓	17-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] BLANK02	E235.NO3-L	12-Oct-2023	17-Oct-2023	7 days	5 days	✓	17-Oct-2023	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO3-L	12-Oct-2023	17-Oct-2023	7 days	5 days	✓	17-Oct-2023	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BLANK02	E235.NO2-L	12-Oct-2023	17-Oct-2023	7 days	5 days	✓	17-Oct-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO2-L	12-Oct-2023	17-Oct-2023	7 days	5 days	✓	17-Oct-2023	7 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BLANK02	E235.SO4	12-Oct-2023	17-Oct-2023	28 days	5 days	✓	17-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] GL-TRIB	E235.SO4	12-Oct-2023	17-Oct-2023	28 days	5 days	✓	17-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK02	E372-U	12-Oct-2023	19-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GL-TRIB	E372-U	12-Oct-2023	19-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK02	E339-L	12-Oct-2023	20-Oct-2023	14 days	8 days	✓	20-Oct-2023	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-TRIB	E339-L	12-Oct-2023	20-Oct-2023	14 days	8 days	✓	20-Oct-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK02	E333-L	12-Oct-2023	20-Oct-2023	14 days	8 days	✓	20-Oct-2023	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-TRIB	E333-L	12-Oct-2023	20-Oct-2023	14 days	8 days	✓	20-Oct-2023	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK02	E336-L	12-Oct-2023	20-Oct-2023	14 days	8 days	✓	20-Oct-2023	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E336-L	12-Oct-2023	20-Oct-2023	14 days	8 days	✓	20-Oct-2023	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK02	E421.Cr-L	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GL-TRIB	E421.Cr-L	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK02	E509	12-Oct-2023	20-Oct-2023	28 days	8 days	✓	20-Oct-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GL-TRIB	E509	12-Oct-2023	20-Oct-2023	28 days	8 days	✓	20-Oct-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BLANK02	E421	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GL-TRIB	E421	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
BLANK02	E421.P-L	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GL-TRIB	E421.P-L	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
GL-TRIB	EF001	12-Oct-2023	----	----	----		17-Oct-2023	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK02	E358-L	12-Oct-2023	18-Oct-2023	28 days	6 days	✓	18-Oct-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
GL-TRIB	E358-L	12-Oct-2023	18-Oct-2023	28 days	6 days	✓	18-Oct-2023	28 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK02	E283	12-Oct-2023	19-Oct-2023	14 days	7 days	✓	21-Oct-2023	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE										
GL-TRIB	E283	12-Oct-2023	19-Oct-2023	14 days	7 days	✓	21-Oct-2023	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BLANK02	E290	12-Oct-2023	17-Oct-2023	14 days	5 days	✓	17-Oct-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
GL-TRIB	E290	12-Oct-2023	17-Oct-2023	14 days	5 days	✓	17-Oct-2023	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BLANK02	E100	12-Oct-2023	17-Oct-2023	28 days	5 days	✓	17-Oct-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] GL-TRIB	E100	12-Oct-2023	17-Oct-2023	28 days	5 days	✓	17-Oct-2023	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK02	E108	12-Oct-2023	17-Oct-2023	14 days	5 days	✓	17-Oct-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] GL-TRIB	E108	12-Oct-2023	17-Oct-2023	14 days	5 days	✓	17-Oct-2023	14 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK02	E162-L	12-Oct-2023	----	----	----		18-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] GL-TRIB	E162-L	12-Oct-2023	----	----	----		18-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK02	E160-L	12-Oct-2023	----	----	----		18-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GL-TRIB	E160-L	12-Oct-2023	----	----	----		18-Oct-2023	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK02	E420.Cr-L	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GL-TRIB	E420.Cr-L	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
BLANK02	E508	12-Oct-2023	20-Oct-2023	28 days	8 days	✓	20-Oct-2023	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
GL-TRIB	E508	12-Oct-2023	20-Oct-2023	28 days	8 days	✓	20-Oct-2023	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BLANK02	E420	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
GL-TRIB	E420	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
BLANK02	E420.P-L	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
GL-TRIB	E420.P-L	12-Oct-2023	25-Oct-2023	180 days	13 days	✓	25-Oct-2023	180 days	13 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1194266	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189298	1	10	10.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189299	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204949	0	6	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1196846	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204948	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204950	0	6	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1197543	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
pH by Meter	E108	1189297	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1190136	1	9	11.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1197544	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1197542	1	5	20.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1194266	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189298	1	10	10.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189299	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204949	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1196846	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204948	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204950	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1197543	1	5	20.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
pH by Meter	E108	1189297	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1190136	1	9	11.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1197544	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1197542	1	5	20.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1194266	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189298	1	10	10.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189299	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204949	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1196846	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204948	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204950	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1197543	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1190136	1	9	11.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1197544	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1197542	1	5	20.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204949	0	6	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1196846	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204948	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204950	0	6	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1197543	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1197544	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1197542	1	5	20.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2326558**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 17-Oct-2023
C-O-C number	: ----	Issue Date	: 30-Oct-2023 15:09
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1189297)											
WP2326405-002	Anonymous	pH	----	E108	0.10	pH units	6.85	6.85	0.00%	4%	----
Physical Tests (QC Lot: 1189298)											
WP2326405-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	254	251	0.950%	20%	----
Physical Tests (QC Lot: 1189299)											
WP2326405-002	Anonymous	Conductivity	----	E100	2.0	µS/cm	3640	3610	0.828%	10%	----
Physical Tests (QC Lot: 1190122)											
WP2326557-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.8	1.8	0.07	Diff <2x LOR	----
Physical Tests (QC Lot: 1190136)											
WP2326432-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	521	531	1.90%	20%	----
Physical Tests (QC Lot: 1194266)											
WP2326259-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191276)											
WP2326557-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.63	0.62	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191277)											
WP2326557-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0078	0.0082	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191278)											
WP2326557-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191279)											
WP2326557-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.18	0.18	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1192240)											
WP2326557-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0353	0.0357	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1194491)											
WP2326557-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.28	1.27	0.663%	20%	----
Cyanides (QC Lot: 1197542)											
WP2326558-001	GL-TRIB	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1197543)											
WP2326558-001	GL-TRIB	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1197544)											
WP2326558-001	GL-TRIB	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1191415)											
WP2326304-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.3	10.5	1.73%	20%	----
Total Metals (QC Lot: 1196841)											
WP2326303-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000052	0.0000070	0.0000018	Diff <2x LOR	----
Total Metals (QC Lot: 1204434)											
WP2326558-001	GL-TRIB	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00029	0.00032	0.00003	Diff <2x LOR	----
Total Metals (QC Lot: 1204435)											
WP2326558-001	GL-TRIB	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	0.033	0.003	Diff <2x LOR	----
Total Metals (QC Lot: 1204436)											
WP2326558-001	GL-TRIB	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.112	0.108	3.30%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00164	0.00176	6.53%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0100	0.0100	0.0342%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000058	<0.0000050	0.0000008	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	10.8	10.8	0.495%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000011	0.000011	0.0000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00011	0.00011	0.000002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00071	0.00069	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.236	0.235	0.407%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000112	0.000097	0.000016	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0017	0.0015	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	3.27	3.31	1.21%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00952	0.00933	1.93%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000209	0.000204	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00055	0.00051	0.00004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.13	1.12	1.05%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00237	0.00228	3.52%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000118	0.000107	0.000011	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.47	2.39	3.39%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1204436) - continued											
WP2326558-001	GL-TRIB	Sodium, total	7440-23-5	E420	0.050	mg/L	1.51	1.47	3.00%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0256	0.0251	1.91%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00369	0.00340	8.07%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000118	0.000118	0.237%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00077	0.00077	0.000005	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196846)											
WP2326292-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1204948)											
TY2310390-015	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0318	0.0315	0.844%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00024	0.00023	0.000008	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0218	0.0221	1.49%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	8.02	8.06	0.581%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000015	0.000015	0.00000005	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00074	0.00075	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.429	0.423	1.44%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.78	2.73	1.63%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00211	0.00211	0.0427%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1204948) - continued											
TY2310390-015	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000063	0.000050	0.000013	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00056	0.00057	0.000010	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.671	0.680	1.30%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00193	0.00183	0.00010	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000081	0.000056	0.000025	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.76	2.72	1.45%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	11.5	11.9	2.95%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0375	0.0368	1.73%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.93	0.89	0.03	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00051	0.00051	0.000002	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000031	0.000029	0.000002	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1189298)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1189299)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1190122)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1190136)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1194266)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1191276)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1191277)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1191278)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1191279)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1192240)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1194491)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1197542)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1197543)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1197544)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1191415)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1196841)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1204434)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1204434) - continued						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1204435)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1204436)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1204436) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1196846)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1204948)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1204948) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1204949)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1204950)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1189297)									
pH	----	E108	----	pH units	7 pH units	99.3	98.0	102	----
Physical Tests (QCLot: 1189298)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	93.7	85.0	115	----
Physical Tests (QCLot: 1189299)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.7	90.0	110	----
Physical Tests (QCLot: 1190122)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 1190136)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.2	85.0	115	----
Physical Tests (QCLot: 1194266)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 1191276)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1191277)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1191278)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.2	90.0	110	----
Anions and Nutrients (QCLot: 1191279)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.7	90.0	110	----
Anions and Nutrients (QCLot: 1192240)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.0	85.0	115	----
Anions and Nutrients (QCLot: 1194491)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.0	80.0	120	----
Cyanides (QCLot: 1197542)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	100	80.0	120	----
Cyanides (QCLot: 1197543)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	103	80.0	120	----
Cyanides (QCLot: 1197544)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	94.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1191415)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.5	80.0	120	----
Total Metals (QCLot: 1196841)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.4	80.0	120	----
Total Metals (QCLot: 1204434)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	91.8	80.0	120	----
Total Metals (QCLot: 1204435)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	97.7	80.0	120	----
Total Metals (QCLot: 1204436)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	96.6	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.8	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.0	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	91.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	93.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	91.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	96.2	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	94.6	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	89.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	97.7	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.8	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	92.2	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	97.4	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1204436) - continued									
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	96.6	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	93.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.6	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	87.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	91.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.6	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	90.8	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	95.7	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.6	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	88.2	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	96.1	80.0	120	----
Dissolved Metals (QCLot: 1204948)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	104	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.4	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	108	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204948) - continued									
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100.0	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	101	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	109	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	98.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	100	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.1	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.3	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	99.6	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 1204949)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1191276)										
WP2326557-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1191277)										
WP2326557-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.58 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1191278)										
WP2326557-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.496 mg/L	0.5 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1191279)										
WP2326557-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1192240)										
WP2326557-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.120 mg/L	0.1 mg/L	120	75.0	125	----
Anions and Nutrients (QCLot: 1194491)										
WP2326557-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.241 mg/L	0.25 mg/L	96.3	70.0	130	----
Cyanides (QCLot: 1197542)										
WP2326558-001	GL-TRIB	Cyanide, weak acid dissociable	----	E336-L	0.131 mg/L	0.125 mg/L	104	75.0	125	----
Cyanides (QCLot: 1197543)										
WP2326558-001	GL-TRIB	Cyanide, free	----	E339-L	0.133 mg/L	0.125 mg/L	106	75.0	125	----
Cyanides (QCLot: 1197544)										
WP2326558-001	GL-TRIB	Cyanide, strong acid dissociable (Total)	----	E333-L	0.242 mg/L	0.25 mg/L	96.7	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1191415)										
WP2326488-031	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1196841)										
WP2326557-001	Anonymous	Mercury, total	7439-97-6	E508	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----
Total Metals (QCLot: 1204434)										
WP2326558-001	GL-TRIB	Chromium, total	7440-47-3	E420.Cr-L	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	----
Total Metals (QCLot: 1204435)										
WP2326558-001	GL-TRIB	Phosphorus, total	7723-14-0	E420.P-L	9.73 mg/L	10 mg/L	97.3	70.0	130	----
Total Metals (QCLot: 1204436)										
WP2326558-001	GL-TRIB	Aluminum, total	7429-90-5	E420	0.209 mg/L	0.2 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1204436) - continued										
WP2326558-001	GL-TRIB	Antimony, total	7440-36-0	E420	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Barium, total	7440-39-3	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0373 mg/L	0.04 mg/L	93.3	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00951 mg/L	0.01 mg/L	95.1	70.0	130	----
		Boron, total	7440-42-8	E420	0.094 mg/L	0.1 mg/L	93.7	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00974 mg/L	0.01 mg/L	97.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Copper, total	7440-50-8	E420	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		Iron, total	7439-89-6	E420	2.00 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0949 mg/L	0.1 mg/L	94.9	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0184 mg/L	0.02 mg/L	92.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0372 mg/L	0.04 mg/L	93.0	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.73 mg/L	10 mg/L	97.3	70.0	130	----
		Potassium, total	7440-09-7	E420	4.15 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Silicon, total	7440-21-3	E420	9.74 mg/L	10 mg/L	97.4	70.0	130	----
		Silver, total	7440-22-4	E420	0.00379 mg/L	0.004 mg/L	94.7	70.0	130	----
		Sodium, total	7440-23-5	E420	1.87 mg/L	2 mg/L	93.4	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.9 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0362 mg/L	0.04 mg/L	90.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00374 mg/L	0.004 mg/L	93.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0187 mg/L	0.02 mg/L	93.3	70.0	130	----
		Tin, total	7440-31-5	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0379 mg/L	0.04 mg/L	94.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0185 mg/L	0.02 mg/L	92.7	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00352 mg/L	0.004 mg/L	88.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1204436) - continued										
WP2326558-001	GL-TRIB	Vanadium, total	7440-62-2	E420	0.0989 mg/L	0.1 mg/L	98.9	70.0	130	----
		Zinc, total	7440-66-6	E420	0.390 mg/L	0.4 mg/L	97.6	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0376 mg/L	0.04 mg/L	94.0	70.0	130	----
Dissolved Metals (QCLot: 1196846)										
WP2326292-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000964 mg/L	0.0001 mg/L	96.4	70.0	130	----
Dissolved Metals (QCLot: 1204948)										
TY2310390-015	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00934 mg/L	0.01 mg/L	93.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00406 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.98 mg/L	2 mg/L	98.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0396 mg/L	0.04 mg/L	99.1	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.5 mg/L	10 mg/L	105	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.23 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00428 mg/L	0.004 mg/L	107	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.2 mg/L	20 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204948) - continued										
TY2310390-015	Anonymous	Tellurium, dissolved	13494-80-9	E421	0.0451 mg/L	0.04 mg/L	113	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0395 mg/L	0.04 mg/L	98.9	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00398 mg/L	0.004 mg/L	99.6	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.407 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler:	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q			Field pH	Field Temperature	Field Conductivity (ms/cm)
	GL-TRIB	12-Oct-23	12:50	Water	9	X			7.02	9.8	62
	BLANK02	12-Oct-23	13:00	Water	9	X			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	Date: ~~12/Oct~~/2023 16/Oct/2023	Time:	Received by:	Date: OCT 17 2023	Time: 900	Received by:	Time: 12:30

Environmental Division
Winnipeg
Work Order Reference
WP2326558

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2326557**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 17-Oct-2023
C-O-C number	: ----	Issue Date	: 30-Oct-2023 11:54
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-14	SW-14-B	----
					Client sampling date / time	13-Oct-2023 14:15	13-Oct-2023 14:00	13-Oct-2023 12:05	13-Oct-2023 11:10	----
						WP2326557-001	WP2326557-002	WP2326557-003	WP2326557-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.19	7.20	7.42	7.27	----
Temperature, field	----	EF001/WP	0.10	°C		12.2	12.0	8.50	8.30	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.7	3.0	<2.0	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.2	33.6	40.9	41.0	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.2	33.6	40.9	41.0	----
Conductivity	----	E100/WP	1.0	µS/cm		69.9	69.3	96.6	97.3	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		38.5	36.8	50.4	49.2	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		31.9	32.7	43.1	44.3	----
pH	----	E108/WP	0.10	pH units		7.32	7.35	7.52	7.53	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		52.7	50.3	82.3	79.0	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.8	2.2	4.8	5.8	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0353	0.0359	0.0264	<0.0050	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.18	0.19	3.87	3.84	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0078	<0.0050	<0.0050	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0078	<0.0051	<0.0051	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		1.28	0.0174	0.0268	0.0296	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.63	0.63	0.43	0.43	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-14	SW-14-B	----
					Client sampling date / time	13-Oct-2023 14:15	13-Oct-2023 14:00	13-Oct-2023 12:05	13-Oct-2023 11:10	----
						WP2326557-001	WP2326557-002	WP2326557-003	WP2326557-004	--------
						Result	Result	Result	Result	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		9.22	9.50	18.0	18.4	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0076	0.0133	0.0452	0.0503	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00268	0.00285	0.00201	0.00208	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00701	0.00732	0.0118	0.0118	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.23	9.50	11.4	11.7	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00022	0.00018 RRV	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050 RRV	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.254	0.296	0.105	0.110	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	0.000087	0.000092	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010 RRV	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.15	2.18	3.55	3.67	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0229	0.0300	0.0273	0.0300	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000106	0.000112	0.000189	0.000197	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	0.034	0.040	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.740	0.769	1.33	1.41	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00186	0.00193	0.00145	0.00150	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-14	SW-14-B	----
					Client sampling date / time	13-Oct-2023 14:15	13-Oct-2023 14:00	13-Oct-2023 12:05	13-Oct-2023 11:10	----
						WP2326557-001	WP2326557-002	WP2326557-003	WP2326557-004	--------
						Result	Result	Result	Result	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000062	0.000072	0.000108	0.000070	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.27	1.31	0.46	0.49	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.10	1.14	3.43	3.52	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0224	0.0230	0.0316	0.0314	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	0.51	<0.50	<0.50	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	0.00045	0.00116	0.00140	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000033	0.000034	0.000049	0.000050	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0020	0.0018	0.0158	0.0157	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00240	0.00241	0.00192	0.00187	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00739	0.00760	0.0116	0.0113	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.2	10.6	13.4	13.1	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00013	0.00140 RRV	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00140 RRV	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	SW-14	SW-14-B	----
					Client sampling date / time	13-Oct-2023 14:15	13-Oct-2023 14:00	13-Oct-2023 12:05	13-Oct-2023 11:10	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326557-001	WP2326557-002	WP2326557-003	WP2326557-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	0.00031	0.00034	0.00033	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.176	0.182	0.031	0.036	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0014	0.0013	0.0021	0.0029 RRV	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.57	2.50	4.11	4.01	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00581	0.00545	0.00037	0.00030	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000136	0.000123	0.000206	0.000190	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00058	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.862	0.864	1.54	1.50	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00200	0.00204	0.00144	0.00153	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000067	0.000059	0.000114	0.000107	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.52	1.52	0.449	0.468	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.20	1.16	4.06	3.93	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0257	0.0254	0.0347	0.0363	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	0.52	0.55	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00030	<0.00030	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000026	0.000025	0.000041	0.000042	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0011	<0.0010	<0.0010	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	SW-14	SW-14-B	----
					Client sampling date / time	13-Oct-2023 14:15	13-Oct-2023 14:00	13-Oct-2023 12:05	13-Oct-2023 11:10	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326557-001	WP2326557-002	WP2326557-003	WP2326557-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2326557**	Page	: 1 of 21
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Issue Date	: 30-Oct-2023 11:53
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14	E298	13-Oct-2023	18-Oct-2023	28 days	5 days	✓	18-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14-B	E298	13-Oct-2023	18-Oct-2023	28 days	5 days	✓	18-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	13-Oct-2023	18-Oct-2023	28 days	5 days	✓	18-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	13-Oct-2023	18-Oct-2023	28 days	5 days	✓	18-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-14	E235.Cl-L	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-14-B	E235.Cl-L	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.Cl-L	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-14	E235.NO3-L	13-Oct-2023	17-Oct-2023	7 days	4 days	✓	17-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-14-B	E235.NO3-L	13-Oct-2023	17-Oct-2023	7 days	4 days	✓	17-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO3-L	13-Oct-2023	17-Oct-2023	7 days	4 days	✓	17-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO3-L	13-Oct-2023	17-Oct-2023	7 days	4 days	✓	17-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-14	E235.NO2-L	13-Oct-2023	17-Oct-2023	7 days	4 days	✓	17-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-14-B	E235.NO2-L	13-Oct-2023	17-Oct-2023	7 days	4 days	✓	17-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	13-Oct-2023	17-Oct-2023	7 days	4 days	✓	17-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	13-Oct-2023	17-Oct-2023	7 days	4 days	✓	17-Oct-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-14	E235.SO4	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-14-B	E235.SO4	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL	E235.SO4	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL-B	E235.SO4	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-14	E372-U	13-Oct-2023	19-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-14-B	E372-U	13-Oct-2023	19-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL	E372-U	13-Oct-2023	19-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL-B	E372-U	13-Oct-2023	19-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E339-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E339-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E333-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E333-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E336-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E336-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	13-Oct-2023	24-Oct-2023	14 days	11 days	✓	24-Oct-2023	14 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-14	E421.Cr-L	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-14-B	E421.Cr-L	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.Cr-L	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-14	E509	13-Oct-2023	20-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-14-B	E509	13-Oct-2023	20-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	13-Oct-2023	20-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	13-Oct-2023	20-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-14	E421	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-14-B	E421	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-14	E421.P-L	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-14-B	E421.P-L	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	13-Oct-2023	25-Oct-2023	180 days	12 days	✓	25-Oct-2023	180 days	12 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-14	EF001	13-Oct-2023	----	----	----		17-Oct-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-14-B	EF001	13-Oct-2023	----	----	----		17-Oct-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	13-Oct-2023	----	----	----		17-Oct-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL-B	EF001	13-Oct-2023	----	----	----		17-Oct-2023	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-14	E358-L	13-Oct-2023	18-Oct-2023	28 days	5 days	✓	18-Oct-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-14-B	E358-L	13-Oct-2023	18-Oct-2023	28 days	5 days	✓	18-Oct-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	13-Oct-2023	18-Oct-2023	28 days	5 days	✓	18-Oct-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL-B	E358-L	13-Oct-2023	18-Oct-2023	28 days	5 days	✓	18-Oct-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-14	E283	13-Oct-2023	19-Oct-2023	14 days	6 days	✓	21-Oct-2023	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-14-B	E283	13-Oct-2023	19-Oct-2023	14 days	6 days	✓	21-Oct-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	13-Oct-2023	19-Oct-2023	14 days	6 days	✓	21-Oct-2023	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	13-Oct-2023	19-Oct-2023	14 days	6 days	✓	21-Oct-2023	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-14	E290	13-Oct-2023	17-Oct-2023	14 days	4 days	✓	17-Oct-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-14-B	E290	13-Oct-2023	17-Oct-2023	14 days	4 days	✓	17-Oct-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	13-Oct-2023	17-Oct-2023	14 days	4 days	✓	17-Oct-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	13-Oct-2023	17-Oct-2023	14 days	4 days	✓	17-Oct-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-14	E100	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-14-B	E100	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	13-Oct-2023	17-Oct-2023	28 days	4 days	✓	17-Oct-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-14	E108	13-Oct-2023	17-Oct-2023	14 days	4 days	✓	17-Oct-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-14-B	E108	13-Oct-2023	17-Oct-2023	14 days	4 days	✓	17-Oct-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	13-Oct-2023	17-Oct-2023	14 days	4 days	✓	17-Oct-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	13-Oct-2023	17-Oct-2023	14 days	4 days	✓	17-Oct-2023	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-14	E162-L	13-Oct-2023	----	----	----		20-Oct-2023	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-14-B	E162-L	13-Oct-2023	----	----	----		20-Oct-2023	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	13-Oct-2023	----	----	----		20-Oct-2023	7 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	13-Oct-2023	----	----	----		20-Oct-2023	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14	E160-L	13-Oct-2023	----	----	----		18-Oct-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14-B	E160-L	13-Oct-2023	----	----	----		18-Oct-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	13-Oct-2023	----	----	----		18-Oct-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	13-Oct-2023	----	----	----		18-Oct-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14	E420.Cr-L	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14-B	E420.Cr-L	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14	E508	13-Oct-2023	20-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14-B	E508	13-Oct-2023	20-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	13-Oct-2023	20-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	13-Oct-2023	20-Oct-2023	28 days	7 days	✓	20-Oct-2023	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14	E420	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14-B	E420	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14	E420.P-L	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-14-B	E420.P-L	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL	E420.P-L	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL-B	E420.P-L	13-Oct-2023	24-Oct-2023	180 days	11 days	✓	24-Oct-2023	180 days	11 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1194264	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189341	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189339	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204949	0	6	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1196846	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204948	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204950	0	6	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
pH by Meter	E108	1189340	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1202364	0	4	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1202361	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1202362	0	7	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1194264	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189341	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189339	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204949	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1196846	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204948	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204950	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
pH by Meter	E108	1189340	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1202364	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1202361	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1202362	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1194264	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189341	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189339	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204949	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1196846	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204948	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204950	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1202364	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1202361	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1202362	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204949	0	6	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1196846	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204948	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204950	0	6	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1202364	0	4	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1202361	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1202362	0	7	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2326557**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 17-Oct-2023
C-O-C number	: ----	Issue Date	: 30-Oct-2023 11:49
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1189339)											
WP2326557-001	SW-GL	Conductivity	----	E100	1.0	µS/cm	69.9	69.5	0.574%	10%	----
Physical Tests (QC Lot: 1189340)											
WP2326557-001	SW-GL	pH	----	E108	0.10	pH units	7.32	7.33	0.136%	4%	----
Physical Tests (QC Lot: 1189341)											
WP2326557-001	SW-GL	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.2	33.0	0.604%	20%	----
Physical Tests (QC Lot: 1190122)											
WP2326557-001	SW-GL	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.8	1.8	0.07	Diff <2x LOR	----
Physical Tests (QC Lot: 1192468)											
WP2326476-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	60.0	mg/L	8950	9700	8.06%	20%	----
Physical Tests (QC Lot: 1194264)											
WP2326488-017	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.3	2.2	0.08	Diff <2x LOR	----
Physical Tests (QC Lot: 1194266)											
WP2326259-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191276)											
WP2326557-001	SW-GL	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.63	0.62	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191277)											
WP2326557-001	SW-GL	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0078	0.0082	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191278)											
WP2326557-001	SW-GL	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191279)											
WP2326557-001	SW-GL	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.18	0.18	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1192240)											
WP2326557-001	SW-GL	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0353	0.0357	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1194491)											
WP2326557-001	SW-GL	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.28	1.27	0.663%	20%	----
Cyanides (QC Lot: 1202164)											
WP2326557-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1202165)											
WP2326557-001	SW-GL	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1202166)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1202166) - continued											
WP2326557-001	SW-GL	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1191415)											
WP2326304-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.3	10.5	1.73%	20%	----
Total Metals (QC Lot: 1196841)											
WP2326303-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000052	0.0000070	0.0000018	Diff <2x LOR	----
Total Metals (QC Lot: 1202361)											
TY2310318-006	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	1.94	1.87	4.08%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00010	<0.00010	0.000004	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00036	0.00037	0.000009	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0210	0.0213	1.49%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000233	0.0000268	0.0000036	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	48.0	45.0	6.45%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000151	0.000151	0.152%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00238	0.00218	0.00020	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00233	0.00230	1.65%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00938	0.00872	7.35%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	3.43	3.25	5.47%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000482	0.000479	0.000003	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	3.92	3.84	2.19%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0740	0.0705	4.81%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000579	0.000515	11.8%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00567	0.00550	3.00%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.19	1.12	5.50%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00407	0.00384	5.80%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000236	0.000180	0.000056	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	8.06	7.87	2.35%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000539	0.000504	6.68%	20%	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.00	1.84	8.48%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0715	0.0710	0.709%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1202361) - continued											
TY2310318-006	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	1.99	1.98	0.01	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00014	0.00013	0.00002	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00053	0.00044	0.00009	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0639	0.0607	5.05%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00037	0.00036	0.00001	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000244	0.000244	0.0205%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00625	0.00602	3.64%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.173	0.166	4.34%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00038	0.00021	0.00017	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1196846)											
WP2326292-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1204948)											
TY2310390-015	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0318	0.0315	0.844%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00024	0.00023	0.000008	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0218	0.0221	1.49%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	8.02	8.06	0.581%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000015	0.000015	0.00000005	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00074	0.00075	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.429	0.423	1.44%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.78	2.73	1.63%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00211	0.00211	0.0427%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000063	0.000050	0.000013	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00056	0.00057	0.000010	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1204948) - continued											
TY2310390-015	Anonymous	Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.671	0.680	1.30%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00193	0.00183	0.00010	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000081	0.000056	0.000025	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.76	2.72	1.45%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	11.5	11.9	2.95%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0375	0.0368	1.73%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.93	0.89	0.03	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00051	0.00051	0.000002	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000031	0.000029	0.000002	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1189339)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1189341)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1190122)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1192468)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1194264)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1194266)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1191276)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1191277)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1191278)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1191279)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1192240)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1194491)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1202164)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1202165)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1202166)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1191415)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1196841)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1196841) - continued						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1202361)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1202361) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1202362)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1202364)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1196846)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1204948)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1204948) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1204949)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1204950)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1189339)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1189340)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1189341)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	94.8	85.0	115	----
Physical Tests (QCLot: 1190122)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 1192468)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.5	85.0	115	----
Physical Tests (QCLot: 1194264)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Physical Tests (QCLot: 1194266)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 1191276)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1191277)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1191278)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.2	90.0	110	----
Anions and Nutrients (QCLot: 1191279)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.7	90.0	110	----
Anions and Nutrients (QCLot: 1192240)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.0	85.0	115	----
Anions and Nutrients (QCLot: 1194491)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.0	80.0	120	----
Cyanides (QCLot: 1202164)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	99.2	80.0	120	----
Cyanides (QCLot: 1202165)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	99.8	80.0	120	----
Cyanides (QCLot: 1202166)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1202166) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	97.2	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1191415)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.5	80.0	120	----
Total Metals (QCLot: 1196841)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.4	80.0	120	----
Total Metals (QCLot: 1202361)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	107	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	106	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.7	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	103	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.7	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.2	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	112	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.2	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1202361) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	99.8	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.9	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	94.4	80.0	120	----
Total Metals (QCLot: 1202362)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Total Metals (QCLot: 1202364)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	96.1	80.0	120	----
Dissolved Metals (QCLot: 1204948)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	104	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.4	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204948) - continued									
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100.0	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	101	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	109	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	98.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	100	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.1	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.3	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	99.6	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 1204949)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1191276)										
WP2326557-001	SW-GL	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1191277)										
WP2326557-001	SW-GL	Nitrate (as N)	14797-55-8	E235.NO3-L	2.58 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1191278)										
WP2326557-001	SW-GL	Nitrite (as N)	14797-65-0	E235.NO2-L	0.496 mg/L	0.5 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1191279)										
WP2326557-001	SW-GL	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1192240)										
WP2326557-001	SW-GL	Ammonia, total (as N)	7664-41-7	E298	0.120 mg/L	0.1 mg/L	120	75.0	125	----
Anions and Nutrients (QCLot: 1194491)										
WP2326557-002	SW-GL-B	Phosphorus, total	7723-14-0	E372-U	0.241 mg/L	0.25 mg/L	96.3	70.0	130	----
Cyanides (QCLot: 1202164)										
WP2326557-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.128 mg/L	0.125 mg/L	102	75.0	125	----
Cyanides (QCLot: 1202165)										
WP2326557-001	SW-GL	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1202166)										
WP2326557-001	SW-GL	Cyanide, strong acid dissociable (Total)	----	E333-L	0.221 mg/L	0.25 mg/L	88.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1191415)										
WP2326488-031	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1196841)										
WP2326557-001	SW-GL	Mercury, total	7439-97-6	E508	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----
Total Metals (QCLot: 1202361)										
TY2310318-006	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0382 mg/L	0.04 mg/L	95.6	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00926 mg/L	0.01 mg/L	92.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1202361) - continued										
TY2310318-006	Anonymous	Boron, total	7440-42-8	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00394 mg/L	0.004 mg/L	98.6	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00996 mg/L	0.01 mg/L	99.6	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Copper, total	7440-50-8	E420	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0184 mg/L	0.02 mg/L	91.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0959 mg/L	0.1 mg/L	95.9	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0194 mg/L	0.02 mg/L	97.3	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0378 mg/L	0.04 mg/L	94.5	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.2 mg/L	10 mg/L	102	70.0	130	----
		Potassium, total	7440-09-7	E420	4.01 mg/L	4 mg/L	100	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	8.97 mg/L	10 mg/L	89.7	70.0	130	----
		Silver, total	7440-22-4	E420	0.00384 mg/L	0.004 mg/L	96.0	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.1 mg/L	20 mg/L	100	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0386 mg/L	0.04 mg/L	96.4	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00380 mg/L	0.004 mg/L	94.9	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Titanium, total	7440-32-6	E420	ND mg/L	0.04 mg/L	ND	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00384 mg/L	0.004 mg/L	96.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0997 mg/L	0.1 mg/L	99.7	70.0	130	----
		Zinc, total	7440-66-6	E420	0.369 mg/L	0.4 mg/L	92.3	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0373 mg/L	0.04 mg/L	93.3	70.0	130	----
Dissolved Metals (QCLot: 1196846)										
WP2326292-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000964 mg/L	0.0001 mg/L	96.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204948)										
TY2310390-015	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00934 mg/L	0.01 mg/L	93.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00406 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.98 mg/L	2 mg/L	98.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0396 mg/L	0.04 mg/L	99.1	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.5 mg/L	10 mg/L	105	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.23 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00428 mg/L	0.004 mg/L	107	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0451 mg/L	0.04 mg/L	113	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0395 mg/L	0.04 mg/L	98.9	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204948) - continued										
TY2310390-015	Anonymous	Uranium, dissolved	7440-61-1	E421	0.00398 mg/L	0.004 mg/L	99.6	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.407 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2326557

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) Requ
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge mi
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge m
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Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge m
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surch
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests o holidays and for non-routine
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer Sampler: AP/HH

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q	SW - M		Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-GL	13-Oct-23	14:15	Water	9		X		7.19	12.2	57.4
	SW-GL-B	13-Oct-23	14:00	Water	9		X		7.2	12	57.1
	SW-14	13-Oct-23	12:05	Water	9	X			7.42	8.5	73.9
	SW-14--B	13-Oct-23	11:10	Water	9	X			7.27	8.3	107.8

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: ~~16/Oct/2023~~ 16/Oct/2023	Time:	Received by:	Date: OCT 17 2023	Time: 12:30	Received by:	Time:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2326559**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 17-Oct-2023
C-O-C number	: ----	Issue Date	: 27-Oct-2023 12:25
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Sample Comments

Sample	Client Id	*Comment*
WP2326559-001	GL-02	Sample(s) Hg-D -001: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).
WP2326559-001	GL-02	Sample(s) Hg-T -001: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Qualifiers

Qualifier	*Description*
HTD	*Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	GL-02	SW-TR	SW-03	BLANK-02	SW-15
					Client sampling date / time	14-Oct-2023 12:40	14-Oct-2023 14:00	14-Oct-2023 14:30	14-Oct-2023 11:30	14-Oct-2023 11:15
						WP2326559-001	WP2326559-002	WP2326559-003	WP2326559-004	WP2326559-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.39	3.75	6.94	----	6.43
Temperature, field	----	EF001/WP	0.10	°C		6.20	8.90	6.00	----	7.10
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		6.2	13.6	2.4	<2.0	6.3
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		51.3	<1.0	134	<1.0	60.2
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		51.3	<1.0	134	<1.0	60.2
Conductivity	----	E100/WP	1.0	µS/cm		233	26.5	241	<1.0	127
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		59.7	8.39	118	<0.50	68.6
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		63.0	8.31	126	<0.50	74.4
pH	----	E108/WP	0.10	pH units		7.29	4.61	8.09	5.39	7.35
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		154	53.8 HTD	138	<3.0	131
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	1.2	3.8	<1.0	11.8
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	0.0205	0.0058	<0.0050	0.0193
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		43.5	0.39	0.98	<0.10	1.07
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0535	<0.0050	0.0185	<0.0050	0.0184
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0535	<0.0051	0.0185	<0.0051	0.0184
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		21.6	10.0	0.0172	<0.0020	0.0362
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.78	0.37	3.32	<0.30	1.22
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0012
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0015

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	GL-02	SW-TR	SW-03	BLANK-02	SW-15
					Client sampling date / time	14-Oct-2023 12:40	14-Oct-2023 14:00	14-Oct-2023 14:30	14-Oct-2023 11:30	14-Oct-2023 11:15
						WP2326559-001	WP2326559-002	WP2326559-003	WP2326559-004	WP2326559-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0012
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		10.2	38.1	6.31	<0.50	38.5
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0260	0.503	0.0618	<0.0030 RRV	0.919
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00015	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00169	0.00534	0.00130	<0.00010	0.00284
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0132	0.00394	0.0144	<0.00010	0.0208
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000022	<0.000020	<0.000020	0.000037
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000163	<0.0000050	<0.0000050	0.0000061
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		18.5	1.97	37.0	<0.050	19.9
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000056	0.000011	<0.000010	<0.000010	0.000087
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00015	0.00076	0.00023	<0.00010	0.00171
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00076	<0.00050	<0.00050	0.00171
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00039	0.00035	<0.00010	<0.00010	0.00040
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	0.00052	<0.00050	<0.00050	0.00148
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.992	0.668	0.112	<0.010	1.28
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	0.000285	<0.000050	<0.000050	0.000358
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0021	<0.0010	0.0055	<0.0010	0.0032
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		4.09	0.824	8.06	<0.0050	6.00
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.116	0.0147	0.0147	<0.00010	0.0424
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000056
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000462	0.000056	0.000638	0.000064	0.000594
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	0.00075	0.00052	<0.00050	0.00177
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.38	0.238	2.23	<0.050	1.76
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00235	0.00021	0.00083	<0.00020	0.00317

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	GL-02	SW-TR	SW-03	BLANK-02	SW-15
					Client sampling date / time	14-Oct-2023 12:40	14-Oct-2023 14:00	14-Oct-2023 14:30	14-Oct-2023 11:30	14-Oct-2023 11:15
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326559-001	WP2326559-002	WP2326559-003	WP2326559-004	WP2326559-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000076	0.000136	0.000105	<0.000050	0.000134
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		7.94	0.72	5.77	<0.10	6.44
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		24.8	0.810	2.74	<0.050	2.68
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0572	0.00928	0.0526	<0.00020	0.0400
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	0.82	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000011
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00016
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00032	0.00635	0.00250	<0.00030	0.0361
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000168	0.000062	0.00114	<0.000010	0.000153
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	0.00068	0.00076	<0.00050	0.00220
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0057	<0.0030	<0.0030	0.0032
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00023	<0.00020	<0.00020	0.00084
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0225	0.508	0.0165	0.0074 RRV	0.187
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	0.00015	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00166	0.00548	0.00124	<0.00010	0.00267
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0133	0.00408	0.0143	<0.00010	0.0149
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	0.0000146	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		16.9	1.82	33.5	<0.050	17.5
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.000054	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00014	0.00079	0.00016	<0.00010	0.00065
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00079	<0.00050	<0.00050	0.00065
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00042	0.00035	<0.00010	<0.00010	0.00018

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	GL-02	SW-TR	SW-03	BLANK-02	SW-15
					Client sampling date / time	14-Oct-2023 12:40	14-Oct-2023 14:00	14-Oct-2023 14:30	14-Oct-2023 11:30	14-Oct-2023 11:15
						WP2326559-001	WP2326559-002	WP2326559-003	WP2326559-004	WP2326559-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00028	0.00050	0.00045	<0.00020	0.00093
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.786	0.693	0.060	<0.010	0.531
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	0.000287	<0.000050	<0.000050	0.000102
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0013	<0.0010	0.0030	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.26	0.934	8.30	<0.0050	6.06
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.119	0.0156	0.0114	<0.00010	0.0351
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000505	0.000054	0.000675	<0.000050	0.000583
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	0.00079	<0.00050	<0.00050	0.00119
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.52	0.234	2.41	<0.050	1.79
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00232	<0.00020	0.00076	<0.00020	0.00170
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000055	0.000134	0.000117	<0.000050	0.000137
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		8.42	0.645	5.80	<0.050	4.99
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		26.7	1.03	3.07	<0.050	2.81
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0600	0.0103	0.0582	<0.00020	0.0401
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.00	0.55	1.48	<0.50	0.77
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00011	<0.00010	<0.00010	0.00012
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	0.00604	0.00068	<0.00030	0.00598
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000170	0.000063	0.00116	<0.000010	0.000147
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00059	0.00056	<0.00050	0.00076
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0053	<0.0010	<0.0010	0.0016
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	0.00032	<0.00030	<0.00030	0.00065
Dissolved mercury filtration location	----	EP509/WP	-	-		Laboratory	Field	Field	Field	Field

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	GL-02	SW-TR	SW-03	BLANK-02	SW-15
					Client sampling date / time	14-Oct-2023 12:40	14-Oct-2023 14:00	14-Oct-2023 14:30	14-Oct-2023 11:30	14-Oct-2023 11:15
						WP2326559-001	WP2326559-002	WP2326559-003	WP2326559-004	WP2326559-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2326559**	Page	: 1 of 25
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Issue Date	: 27-Oct-2023 12:24
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1204966 001	----	Sodium, dissolved	7440-23-5	E421	0.119 B mg/L	0.05 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GL-02	E298	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-15	E298	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK-02	E298	14-Oct-2023	19-Oct-2023	28 days	5 days	✓	19-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE GL-02	E235.Cl-L	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-03	E235.Cl-L	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-15	E235.Cl-L	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-TR	E235.Cl-L	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-02	E235.Cl-L	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GL-02	E235.NO3-L	14-Oct-2023	17-Oct-2023	3 days	3 days	✓	17-Oct-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-03	E235.NO3-L	14-Oct-2023	17-Oct-2023	3 days	3 days	✓	17-Oct-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-15	E235.NO3-L	14-Oct-2023	17-Oct-2023	3 days	3 days	✓	17-Oct-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO3-L	14-Oct-2023	17-Oct-2023	3 days	3 days	✓	17-Oct-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-02	E235.NO3-L	14-Oct-2023	18-Oct-2023	7 days	4 days	✓	18-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GL-02	E235.NO2-L	14-Oct-2023	17-Oct-2023	3 days	3 days	✓	17-Oct-2023	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-03	E235.NO2-L	14-Oct-2023	17-Oct-2023	3 days	3 days	✓	17-Oct-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-15	E235.NO2-L	14-Oct-2023	17-Oct-2023	3 days	3 days	✓	17-Oct-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO2-L	14-Oct-2023	17-Oct-2023	3 days	3 days	✓	17-Oct-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-02	E235.NO2-L	14-Oct-2023	18-Oct-2023	7 days	4 days	✓	18-Oct-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GL-02	E235.SO4	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-03	E235.SO4	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-15	E235.SO4	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-TR	E235.SO4	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BLANK-02	E235.SO4	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK-02	E372-U	14-Oct-2023	19-Oct-2023	28 days	5 days	✓	20-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GL-02	E372-U	14-Oct-2023	19-Oct-2023	28 days	5 days	✓	20-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-03	E372-U	14-Oct-2023	19-Oct-2023	28 days	5 days	✓	20-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-15	E372-U	14-Oct-2023	19-Oct-2023	28 days	5 days	✓	20-Oct-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	14-Oct-2023	19-Oct-2023	28 days	5 days	✓	20-Oct-2023	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK-02	E339-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-02	E339-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-03	E339-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-15	E339-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-02	E333-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-02	E333-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E333-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-02	E336-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-02	E336-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E336-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	14-Oct-2023	24-Oct-2023	14 days	10 days	✓	24-Oct-2023	14 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-02	E421.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GL-02	E421.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-15	E421.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK-02	E509	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GL-02	E509	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-15	E509	14-Oct-2023	23-Oct-2023	28 days	9 days	✓	23-Oct-2023	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK-02	E421	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) GL-02	E421	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-15	E421	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK-02	E421.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) GL-02	E421.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-15	E421.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) GL-02	EF001	14-Oct-2023	----	----	----		18-Oct-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-03	EF001	14-Oct-2023	----	----	----		18-Oct-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-15	EF001	14-Oct-2023	----	----	----		18-Oct-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-TR	EF001	14-Oct-2023	----	----	----		18-Oct-2023	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GL-02	E358-L	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-03	E358-L	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-15	E358-L	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	14-Oct-2023	18-Oct-2023	28 days	4 days	✓	18-Oct-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK-02	E358-L	14-Oct-2023	19-Oct-2023	28 days	5 days	✓	19-Oct-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
GL-02	E283	14-Oct-2023	19-Oct-2023	14 days	5 days	✓	21-Oct-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-03	E283	14-Oct-2023	19-Oct-2023	14 days	5 days	✓	21-Oct-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-15	E283	14-Oct-2023	19-Oct-2023	14 days	5 days	✓	21-Oct-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-TR	E283	14-Oct-2023	19-Oct-2023	14 days	5 days	✓	21-Oct-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK-02	E283	14-Oct-2023	20-Oct-2023	14 days	6 days	✓	21-Oct-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE GL-02	E290	14-Oct-2023	17-Oct-2023	14 days	3 days	✓	17-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-03	E290	14-Oct-2023	17-Oct-2023	14 days	3 days	✓	17-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-15	E290	14-Oct-2023	17-Oct-2023	14 days	3 days	✓	17-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TR	E290	14-Oct-2023	17-Oct-2023	14 days	3 days	✓	17-Oct-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK-02	E290	14-Oct-2023	19-Oct-2023	14 days	5 days	✓	19-Oct-2023	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE GL-02	E100	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-03	E100	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-15	E100	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-TR	E100	14-Oct-2023	17-Oct-2023	28 days	3 days	✓	17-Oct-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK-02	E100	14-Oct-2023	19-Oct-2023	28 days	5 days	✓	19-Oct-2023	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE SW-03	E108	14-Oct-2023	17-Oct-2023	0.25 hrs	67 hrs	× EHTR-FM	17-Oct-2023	0.25 hrs	79 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-TR	E108	14-Oct-2023	17-Oct-2023	0.25 hrs	68 hrs	× EHTR-FM	17-Oct-2023	0.25 hrs	80 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GL-02	E108	14-Oct-2023	17-Oct-2023	0.25 hrs	69 hrs	× EHTR-FM	17-Oct-2023	0.25 hrs	81 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-15	E108	14-Oct-2023	17-Oct-2023	0.25 hrs	70 hrs	× EHTR-FM	17-Oct-2023	0.25 hrs	82 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK-02	E108	14-Oct-2023	19-Oct-2023	14 days	5 days	✓	19-Oct-2023	14 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK-02	E162-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GL-02	E162-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-03	E162-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-15	E162-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TR	E162-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK-02	E160-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GL-02	E160-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-15	E160-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	14-Oct-2023	----	----	----		20-Oct-2023	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-02	E420.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GL-02	E420.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-15	E420.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-02	E508	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GL-02	E508	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-15	E508	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	14-Oct-2023	20-Oct-2023	28 days	6 days	✓	20-Oct-2023	28 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK-02	E420	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GL-02	E420	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-15	E420	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-02	E420.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GL-02	E420.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-15	E420.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	14-Oct-2023	25-Oct-2023	180 days	11 days	✓	25-Oct-2023	180 days	11 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1194266	2	30	6.6	5.0	✓
Alkalinity Species by Titration	E290	1191345	2	28	7.1	5.0	✓
Ammonia by Fluorescence	E298	1192240	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	2	29	6.9	5.0	✓
Conductivity in Water	E100	1191343	2	29	6.9	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204966	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1196846	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204968	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204967	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	2	29	6.9	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	2	29	6.9	5.0	✓
pH by Meter	E108	1191344	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	2	40	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1192485	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1194266	2	30	6.6	5.0	✓
Alkalinity Species by Titration	E290	1191345	2	28	7.1	5.0	✓
Ammonia by Fluorescence	E298	1192240	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	2	29	6.9	5.0	✓
Conductivity in Water	E100	1191343	2	29	6.9	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204966	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1196846	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204968	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204967	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	2	29	6.9	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	2	29	6.9	5.0	✓
pH by Meter	E108	1191344	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	2	40	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1192485	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1194266	2	30	6.6	5.0	✓
Alkalinity Species by Titration	E290	1191345	2	28	7.1	5.0	✓
Ammonia by Fluorescence	E298	1192240	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	2	29	6.9	5.0	✓
Conductivity in Water	E100	1191343	2	29	6.9	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204966	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1196846	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204968	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204967	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	2	29	6.9	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	2	29	6.9	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	2	40	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1192485	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1192240	2	40	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	2	29	6.9	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204966	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1196846	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204968	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1191415	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204967	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	2	29	6.9	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	2	29	6.9	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2326559**	Page	: 1 of 21
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 17-Oct-2023
C-O-C number	: ----	Issue Date	: 27-Oct-2023 12:24
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1191343)											
WP2326544-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1050	1020	3.57%	10%	----
Physical Tests (QC Lot: 1191344)											
WP2326544-001	Anonymous	pH	----	E108	0.10	pH units	7.58	7.63	0.657%	4%	----
Physical Tests (QC Lot: 1191345)											
WP2326544-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	513	503	1.93%	20%	----
Physical Tests (QC Lot: 1192468)											
WP2326476-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	60.0	mg/L	8950	9700	8.06%	20%	----
Physical Tests (QC Lot: 1192485)											
WP2326559-002	SW-TR	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.2	1.7	0.5	Diff <2x LOR	----
Physical Tests (QC Lot: 1193543)											
WP2326722-001	Anonymous	pH	----	E108	0.10	pH units	7.98	7.96	0.251%	4%	----
Physical Tests (QC Lot: 1193544)											
WP2326722-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	935	937	0.214%	10%	----
Physical Tests (QC Lot: 1193545)											
WP2326722-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	564	560	0.552%	20%	----
Physical Tests (QC Lot: 1194266)											
WP2326259-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1197675)											
WP2326259-002	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191276)											
WP2326557-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.63	0.62	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191277)											
WP2326557-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0078	0.0082	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191278)											
WP2326557-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191279)											
WP2326557-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.18	0.18	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1192240)											
WP2326557-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0353	0.0357	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1193472)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1193472) - continued											
WP2326816-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	23.5	23.6	0.524%	20%	----
Anions and Nutrients (QC Lot: 1193473)											
WP2326816-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	1.87	1.88	0.331%	20%	----
Anions and Nutrients (QC Lot: 1193474)											
WP2326816-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1193475)											
WP2326816-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	18.8	18.9	0.235%	20%	----
Anions and Nutrients (QC Lot: 1194330)											
WP2326839-005	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0115	0.0109	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1194491)											
WP2326557-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.28	1.27	0.663%	20%	----
Cyanides (QC Lot: 1202164)											
WP2326557-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1202165)											
WP2326557-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1202166)											
WP2326557-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1191415)											
WP2326304-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.3	10.5	1.73%	20%	----
Organic / Inorganic Carbon (QC Lot: 1194037)											
WP2326167-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	12.1	12.4	2.63%	20%	----
Total Metals (QC Lot: 1196841)											
WP2326303-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000052	0.0000070	0.0000018	Diff <2x LOR	----
Total Metals (QC Lot: 1204434)											
WP2326558-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00029	0.00032	0.00003	Diff <2x LOR	----
Total Metals (QC Lot: 1204435)											
WP2326558-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	0.033	0.003	Diff <2x LOR	----
Total Metals (QC Lot: 1204436)											
WP2326558-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.112	0.108	3.30%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00164	0.00176	6.53%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0100	0.0100	0.0342%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1204436) - continued											
WP2326558-001	Anonymous	Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000058	<0.0000050	0.0000008	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	10.8	10.8	0.495%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000011	0.000011	0.0000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00011	0.00011	0.000002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00071	0.00069	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.236	0.235	0.407%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000112	0.000097	0.000016	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0017	0.0015	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	3.27	3.31	1.21%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00952	0.00933	1.93%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000209	0.000204	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00055	0.00051	0.00004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.13	1.12	1.05%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00237	0.00228	3.52%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000118	0.000107	0.000011	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.47	2.39	3.39%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.51	1.47	3.00%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0256	0.0251	1.91%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00369	0.00340	8.07%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000118	0.000118	0.237%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00077	0.00077	0.000005	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1196846)											
WP2326292-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1200634)											
WP2326559-005	SW-15	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1204966)											
WP2326559-001	GL-02	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00014	0.00013	0.000002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1204967)											
WP2326559-001	GL-02	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1204968)											
WP2326559-001	GL-02	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0225	0.0234	3.64%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00166	0.00160	3.24%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0133	0.0137	2.78%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	16.9	17.4	3.22%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000054	0.000053	0.000001	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00042	0.00039	0.00003	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00028	0.00027	0.000007	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.786	0.764	2.91%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0013	0.0011	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.26	4.20	1.38%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.119	0.118	0.709%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000505	0.000503	0.290%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.52	1.52	0.520%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00232	0.00229	1.10%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000055	<0.000050	0.000005	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8.42	8.31	1.36%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1204968) - continued											
WP2326559-001	GL-02	Sodium, dissolved	7440-23-5	E421	0.050	mg/L	26.7	25.5	4.43%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0600	0.0594	0.892%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.00	0.88	0.11	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	0.00033	0.00003	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000170	0.000174	2.34%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1191343)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1191345)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1192468)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1192485)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1193544)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1193545)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1194266)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1197675)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1191276)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1191277)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1191278)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1191279)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1192240)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1193472)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1193473)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1193474)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1193475)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1193475) - continued						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1194330)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1194491)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1202164)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1202165)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1202166)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1191415)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1194037)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1196841)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1204434)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1204435)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1204436)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1204436) - continued						
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1196846)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1200634)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1204966)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1204967)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1204968)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1204968) - continued						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	# 0.119	B
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1204968) - continued						
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1191343)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1191344)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1191345)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	95.1	85.0	115	----
Physical Tests (QCLot: 1192468)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.5	85.0	115	----
Physical Tests (QCLot: 1192485)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1193543)									
pH	----	E108	----	pH units	7 pH units	99.6	98.0	102	----
Physical Tests (QCLot: 1193544)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1193545)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	98.0	85.0	115	----
Physical Tests (QCLot: 1194266)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1197675)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Anions and Nutrients (QCLot: 1191276)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1191277)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1191278)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.2	90.0	110	----
Anions and Nutrients (QCLot: 1191279)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.7	90.0	110	----
Anions and Nutrients (QCLot: 1192240)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.0	85.0	115	----
Anions and Nutrients (QCLot: 1193472)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100.0	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1193473)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1193474)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	94.4	90.0	110	----
Anions and Nutrients (QCLot: 1193475)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1194330)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 1194491)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.0	80.0	120	----
Cyanides (QCLot: 1202164)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	99.2	80.0	120	----
Cyanides (QCLot: 1202165)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	99.8	80.0	120	----
Cyanides (QCLot: 1202166)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	97.2	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1191415)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.5	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1194037)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.4	80.0	120	----
Total Metals (QCLot: 1196841)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.4	80.0	120	----
Total Metals (QCLot: 1204434)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	91.8	80.0	120	----
Total Metals (QCLot: 1204435)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	97.7	80.0	120	----
Total Metals (QCLot: 1204436)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	96.6	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1204436) - continued									
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.8	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.0	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	91.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	93.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	91.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	96.2	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	94.6	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	89.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	97.7	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.8	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	92.2	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	96.6	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	93.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.6	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	87.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	91.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.6	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	90.8	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	95.7	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.6	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	88.2	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	96.1	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1204966)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204966) - continued									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	118	80.0	120	----
Dissolved Metals (QCLot: 1204968)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	113	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	86.2	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	87.1	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.1	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	91.4	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.5	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.4	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	80.6	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	114	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	118	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	118	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	105	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	116	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	107	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	117	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	97.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204968) - continued									
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.0	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.6	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.3	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1191276)										
WP2326557-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1191277)										
WP2326557-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.58 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1191278)										
WP2326557-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.496 mg/L	0.5 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1191279)										
WP2326557-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1192240)										
WP2326557-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.120 mg/L	0.1 mg/L	120	75.0	125	----
Anions and Nutrients (QCLot: 1193472)										
WP2326816-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	95.4 mg/L	100 mg/L	95.4	75.0	125	----
Anions and Nutrients (QCLot: 1193473)										
WP2326816-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.34 mg/L	2.5 mg/L	93.4	75.0	125	----
Anions and Nutrients (QCLot: 1193474)										
WP2326816-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.465 mg/L	0.5 mg/L	93.0	75.0	125	----
Anions and Nutrients (QCLot: 1193475)										
WP2326816-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	96.9 mg/L	100 mg/L	96.9	75.0	125	----
Anions and Nutrients (QCLot: 1194330)										
WP2326839-005	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1194491)										
WP2326557-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.241 mg/L	0.25 mg/L	96.3	70.0	130	----
Cyanides (QCLot: 1202164)										
WP2326557-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.128 mg/L	0.125 mg/L	102	75.0	125	----
Cyanides (QCLot: 1202165)										
WP2326557-001	Anonymous	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1202166)										
WP2326557-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.221 mg/L	0.25 mg/L	88.5	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1191415)										
WP2326488-031	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1194037)										
WP2326576-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1196841)										
WP2326557-001	Anonymous	Mercury, total	7439-97-6	E508	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----
Total Metals (QCLot: 1204434)										
WP2326558-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	----
Total Metals (QCLot: 1204435)										
WP2326558-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	9.73 mg/L	10 mg/L	97.3	70.0	130	----
Total Metals (QCLot: 1204436)										
WP2326558-001	Anonymous	Aluminum, total	7429-90-5	E420	0.209 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Barium, total	7440-39-3	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0373 mg/L	0.04 mg/L	93.3	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00951 mg/L	0.01 mg/L	95.1	70.0	130	----
		Boron, total	7440-42-8	E420	0.094 mg/L	0.1 mg/L	93.7	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00974 mg/L	0.01 mg/L	97.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Copper, total	7440-50-8	E420	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		Iron, total	7439-89-6	E420	2.00 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0949 mg/L	0.1 mg/L	94.9	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0184 mg/L	0.02 mg/L	92.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0372 mg/L	0.04 mg/L	93.0	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.73 mg/L	10 mg/L	97.3	70.0	130	----
		Potassium, total	7440-09-7	E420	4.15 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1204436) - continued										
WP2326558-001	Anonymous	Silicon, total	7440-21-3	E420	9.74 mg/L	10 mg/L	97.4	70.0	130	----
		Silver, total	7440-22-4	E420	0.00379 mg/L	0.004 mg/L	94.7	70.0	130	----
		Sodium, total	7440-23-5	E420	1.87 mg/L	2 mg/L	93.4	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.9 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0362 mg/L	0.04 mg/L	90.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00374 mg/L	0.004 mg/L	93.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0187 mg/L	0.02 mg/L	93.3	70.0	130	----
		Tin, total	7440-31-5	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0379 mg/L	0.04 mg/L	94.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0185 mg/L	0.02 mg/L	92.7	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00352 mg/L	0.004 mg/L	88.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0989 mg/L	0.1 mg/L	98.9	70.0	130	----
		Zinc, total	7440-66-6	E420	0.390 mg/L	0.4 mg/L	97.6	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0376 mg/L	0.04 mg/L	94.0	70.0	130	----
Dissolved Metals (QCLot: 1196846)										
WP2326292-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000964 mg/L	0.0001 mg/L	96.4	70.0	130	----
Dissolved Metals (QCLot: 1200634)										
WP2326560-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000994 mg/L	0.0001 mg/L	99.4	70.0	130	----
Dissolved Metals (QCLot: 1204966)										
WP2326559-001	GL-02	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1204967)										
WP2326559-001	GL-02	Phosphorus, dissolved	7723-14-0	E421.P-L	11.8 mg/L	10 mg/L	118	70.0	130	----
Dissolved Metals (QCLot: 1204968)										
WP2326559-001	GL-02	Aluminum, dissolved	7429-90-5	E421	0.205 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0327 mg/L	0.04 mg/L	81.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00927 mg/L	0.01 mg/L	92.7	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.083 mg/L	0.1 mg/L	83.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204968) - continued										
WP2326559-001	GL-02	Chromium, dissolved	7440-47-3	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.08 mg/L	2 mg/L	104	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0795 mg/L	0.1 mg/L	79.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.8 mg/L	10 mg/L	118	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.68 mg/L	4 mg/L	117	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	23.4 mg/L	20 mg/L	117	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0422 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00374 mg/L	0.004 mg/L	93.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.405 mg/L	0.4 mg/L	101	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0422 mg/L	0.04 mg/L	106	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Analysis Request
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q	SW - M		Field pH	Field Temperature	Field Conductivity (ms/cm)
	GL-02	14-Oct-23	12:40	Water	9	X			6.39	6.2.	147
	SW-TR	14-Oct-23	14:00	Water	9		X		3.75	8.9	19.7
	SW-03	14-Oct-23	14:30	Water	9		X		6.94	6	173.5
	BLANK-02	14-Oct-23	11:30	Water	9						
	SW-15	14-Oct-23	11:15	Water	9	X			6.43	7.1	89.5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: 16/Oct/2023	Time:	Received by:	Date: OCT 17 2023	Time: 900	Received by:	Time: 12-30

Environmental Division
Winnipeg
Work Order Reference
WP2326559

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surc
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests holidays and for non-routine
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Analysis Request
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-Q	SW - M		Field pH	Field Temperature	Field Conductivity (ms/cm)
	GL-02	14-Oct-23	12:40	Water	9	X			6.39	6.2.	147
	SW-TR	14-Oct-23	14:00	Water	9		X		3.75	8.9	19.7
	SW-03	14-Oct-23	14:30	Water	9		X		6.94	6	173.5
	BLANK-02	14-Oct-23	11:30	Water	9						
	SW-15	14-Oct-23	11:15	Water	9	X			6.43	7.1	89.5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: 16/Oct/2023	Time:	Received by:	Date: OCT 17 2023	Time: 900	Received by:	Time: 12:30

Environmental Division
Winnipeg
Work Order Reference
WP2326559

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2326560**	Page	: 1 of 7
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 17-Oct-2023
C-O-C number	: ----	Issue Date	: 26-Oct-2023 15:34
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-11	SW-12B	----	----	----
					Client sampling date / time	15-Oct-2023 13:15	15-Oct-2023 10:40	----	----	----
						WP2326560-001	WP2326560-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.08	6.87	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		5.00	5.30	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		5.5	6.7	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		73.6	30.9	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		73.6	30.9	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		169	83.5	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		86.6	49.0	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		92.9	51.9	----	----	----
pH	----	E108/WP	0.10	pH units		7.23	6.77	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		189	136	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		7.4	4.8	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0591	0.0214	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		5.41	0.34	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0108	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0108	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0744	0.0261	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		4.13	3.72	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0017	0.0014	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0022	0.0020	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-11	SW-12B	----	----	----
					Client sampling date / time	15-Oct-2023 13:15	15-Oct-2023 10:40	----	----	----
						WP2326560-001	WP2326560-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0017	0.0016	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		47.2	47.9	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		1.23	0.240	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00020	0.00014	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00519	0.00370	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0387	0.0103	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000058	0.000024	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000275	0.0000065	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		24.0	13.8	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000102	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00225	0.00067	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00225	0.00067	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00106	0.00020	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00288	0.00176	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		2.20	0.425	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000513	0.000112	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0032	0.0016	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		8.01	4.24	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.204	0.0130	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000443	0.000213	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00350	0.00155	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.077	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.077	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		2.43	0.257	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00410	0.00065	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-11	SW-12B	----	----	----
					Client sampling date / time	15-Oct-2023 13:15	15-Oct-2023 10:40	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326560-001	WP2326560-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000230	0.000173	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		7.87	6.64	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000016	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		5.21	2.09	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0577	0.0306	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.49	1.28	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000014	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00021	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0440	0.00509	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00028	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000176	0.000110	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00294	0.00142	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0066	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00108	0.00041	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.286	0.195	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00016	0.00013	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00479	0.00376	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0282	0.00957	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000021	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000183	0.0000060	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		21.3	12.3	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00103	0.00063	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00103	0.00063	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00081	0.00018	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-11	SW-12B	----	----	----
					Client sampling date / time	15-Oct-2023 13:15	15-Oct-2023 10:40	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326560-001	WP2326560-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00223	0.00183	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		1.25	0.406	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000182	0.000101	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		8.11	4.44	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.196	0.0118	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000064	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000429	0.000205	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00298	0.00164	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		0.048	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		2.37	0.292	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00216	0.00060	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000298	0.000177	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.17	6.16	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		5.64	2.30	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0603	0.0317	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.00	1.89	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00022	0.00011	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.0115	0.00395	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00025	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000157	0.000123	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00144	0.00130	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0029	0.0011	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00135	0.00057	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-11	SW-12B	----	----	----
					Client sampling date / time	15-Oct-2023 13:15	15-Oct-2023 10:40	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2326560-001	WP2326560-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2326560**	Page	: 1 of 16
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Issue Date	: 26-Oct-2023 15:34
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1204966 001	----	Sodium, dissolved	7440-23-5	E421	0.119 B mg/L	0.05 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	15-Oct-2023	18-Oct-2023	28 days	3 days	✓	18-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-12B	E298	15-Oct-2023	18-Oct-2023	28 days	3 days	✓	18-Oct-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	15-Oct-2023	17-Oct-2023	28 days	2 days	✓	17-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-12B	E235.Cl-L	15-Oct-2023	17-Oct-2023	28 days	2 days	✓	17-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO3-L	15-Oct-2023	17-Oct-2023	7 days	2 days	✓	17-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-12B	E235.NO3-L	15-Oct-2023	17-Oct-2023	7 days	2 days	✓	17-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO2-L	15-Oct-2023	17-Oct-2023	7 days	2 days	✓	17-Oct-2023	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-12B	E235.NO2-L	15-Oct-2023	17-Oct-2023	7 days	2 days	✓	17-Oct-2023	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-11	E235.SO4	15-Oct-2023	17-Oct-2023	28 days	2 days	✓	17-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-12B	E235.SO4	15-Oct-2023	17-Oct-2023	28 days	2 days	✓	17-Oct-2023	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	15-Oct-2023	19-Oct-2023	28 days	4 days	✓	20-Oct-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-12B	E372-U	15-Oct-2023	19-Oct-2023	28 days	4 days	✓	20-Oct-2023	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E339-L	15-Oct-2023	24-Oct-2023	14 days	9 days	✓	24-Oct-2023	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-12B	E339-L	15-Oct-2023	24-Oct-2023	14 days	9 days	✓	24-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E333-L	15-Oct-2023	24-Oct-2023	14 days	9 days	✓	24-Oct-2023	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-12B	E333-L	15-Oct-2023	24-Oct-2023	14 days	9 days	✓	24-Oct-2023	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E336-L	15-Oct-2023	24-Oct-2023	14 days	9 days	✓	24-Oct-2023	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-12B	E336-L	15-Oct-2023	24-Oct-2023	14 days	9 days	✓	24-Oct-2023	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-11	E421.Cr-L	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-12B	E421.Cr-L	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	15-Oct-2023	23-Oct-2023	28 days	8 days	✓	23-Oct-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-12B	E509	15-Oct-2023	23-Oct-2023	28 days	8 days	✓	23-Oct-2023	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-11	E421	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-12B	E421	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-12B	E421.P-L	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	15-Oct-2023	----	----	----		17-Oct-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-12B	EF001	15-Oct-2023	----	----	----		17-Oct-2023	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-11	E358-L	15-Oct-2023	19-Oct-2023	28 days	4 days	✓	19-Oct-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-12B	E358-L	15-Oct-2023	19-Oct-2023	28 days	4 days	✓	19-Oct-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-11	E283	15-Oct-2023	19-Oct-2023	14 days	4 days	✓	21-Oct-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-12B	E283	15-Oct-2023	19-Oct-2023	14 days	4 days	✓	21-Oct-2023	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-11	E290	15-Oct-2023	17-Oct-2023	14 days	2 days	✓	17-Oct-2023	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-12B	E290	15-Oct-2023	17-Oct-2023	14 days	2 days	✓	17-Oct-2023	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	15-Oct-2023	17-Oct-2023	28 days	2 days	✓	17-Oct-2023	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-12B	E100	15-Oct-2023	17-Oct-2023	28 days	2 days	✓	17-Oct-2023	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	15-Oct-2023	17-Oct-2023	14 days	2 days	✓	17-Oct-2023	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-12B	E108	15-Oct-2023	17-Oct-2023	14 days	2 days	✓	17-Oct-2023	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	15-Oct-2023	----	----	----		20-Oct-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-12B	E162-L	15-Oct-2023	----	----	----		20-Oct-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	15-Oct-2023	----	----	----		18-Oct-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-12B	E160-L	15-Oct-2023	----	----	----		18-Oct-2023	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-12B	E420.Cr-L	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	15-Oct-2023	20-Oct-2023	28 days	5 days	✓	20-Oct-2023	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-12B	E508	15-Oct-2023	20-Oct-2023	28 days	5 days	✓	20-Oct-2023	28 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-12B	E420	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-12B	E420.P-L	15-Oct-2023	25-Oct-2023	180 days	10 days	✓	25-Oct-2023	180 days	10 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1194266	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189341	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189339	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204966	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1200634	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204968	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1194037	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204967	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
pH by Meter	E108	1189340	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1194266	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189341	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189339	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204966	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1200634	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204968	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1194037	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204967	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
pH by Meter	E108	1189340	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1194266	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1189341	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Conductivity in Water	E100	1189339	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204966	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1200634	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204968	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1194037	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204967	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1192468	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1190122	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1192240	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1191279	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1204966	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1200634	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1204968	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1194037	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1204967	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1202165	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1191277	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1191278	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1191276	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1204434	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1202166	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1196841	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1204436	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1194491	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1204435	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1202164	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2326560**	Page	: 1 of 18
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 17-Oct-2023 09:00
PO	: ----	Date Analysis Commenced	: 17-Oct-2023
C-O-C number	: ----	Issue Date	: 26-Oct-2023 15:34
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1189339)											
WP2326557-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	69.9	69.5	0.574%	10%	----
Physical Tests (QC Lot: 1189340)											
WP2326557-001	Anonymous	pH	----	E108	0.10	pH units	7.32	7.33	0.136%	4%	----
Physical Tests (QC Lot: 1189341)											
WP2326557-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.2	33.0	0.604%	20%	----
Physical Tests (QC Lot: 1190122)											
WP2326557-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.8	1.8	0.07	Diff <2x LOR	----
Physical Tests (QC Lot: 1192468)											
WP2326476-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	60.0	mg/L	8950	9700	8.06%	20%	----
Physical Tests (QC Lot: 1194266)											
WP2326259-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191276)											
WP2326557-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.63	0.62	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191277)											
WP2326557-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0078	0.0082	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191278)											
WP2326557-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1191279)											
WP2326557-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.18	0.18	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1192240)											
WP2326557-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0353	0.0357	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1194491)											
WP2326557-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.28	1.27	0.663%	20%	----
Cyanides (QC Lot: 1202164)											
WP2326557-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1202165)											
WP2326557-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1202166)											
WP2326557-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1194037)											
WP2326167-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	12.1	12.4	2.63%	20%	----
Total Metals (QC Lot: 1196841)											
WP2326303-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000052	0.0000070	0.0000018	Diff <2x LOR	----
Total Metals (QC Lot: 1204434)											
WP2326558-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00029	0.00032	0.00003	Diff <2x LOR	----
Total Metals (QC Lot: 1204435)											
WP2326558-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	0.033	0.003	Diff <2x LOR	----
Total Metals (QC Lot: 1204436)											
WP2326558-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.112	0.108	3.30%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00164	0.00176	6.53%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0100	0.0100	0.0342%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000058	<0.0000050	0.0000008	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	10.8	10.8	0.495%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000011	0.000011	0.0000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00011	0.00011	0.000002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00071	0.00069	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.236	0.235	0.407%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000112	0.000097	0.000016	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0017	0.0015	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	3.27	3.31	1.21%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00952	0.00933	1.93%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000209	0.000204	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00055	0.00051	0.00004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.13	1.12	1.05%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00237	0.00228	3.52%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000118	0.000107	0.000011	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.47	2.39	3.39%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1204436) - continued											
WP2326558-001	Anonymous	Sodium, total	7440-23-5	E420	0.050	mg/L	1.51	1.47	3.00%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0256	0.0251	1.91%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00369	0.00340	8.07%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000118	0.000118	0.237%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00077	0.00077	0.000005	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1200634)											
WP2326559-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1204966)											
WP2326559-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00014	0.00013	0.000002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1204967)											
WP2326559-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1204968)											
WP2326559-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0225	0.0234	3.64%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00166	0.00160	3.24%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0133	0.0137	2.78%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	16.9	17.4	3.22%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000054	0.000053	0.000001	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00042	0.00039	0.00003	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00028	0.00027	0.000007	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.786	0.764	2.91%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1204968) - continued											
WP2326559-001	Anonymous	Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0013	0.0011	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.26	4.20	1.38%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.119	0.118	0.709%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000505	0.000503	0.290%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.52	1.52	0.520%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00232	0.00229	1.10%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000055	<0.000050	0.000005	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8.42	8.31	1.36%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	26.7	25.5	4.43%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0600	0.0594	0.892%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.00	0.88	0.11	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	0.00033	0.00003	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000170	0.000174	2.34%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1189339)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1189341)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1190122)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1192468)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1194266)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1191276)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1191277)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1191278)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1191279)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1192240)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1194491)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1202164)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1202165)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1202166)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1194037)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1196841)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1204434)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1204434) - continued						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1204435)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1204436)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1204436) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1200634)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1204966)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1204967)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1204968)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1204968) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	# 0.119	B
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1189339)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1189340)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1189341)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	94.8	85.0	115	----
Physical Tests (QCLot: 1190122)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 1192468)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.5	85.0	115	----
Physical Tests (QCLot: 1194266)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 1191276)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1191277)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1191278)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.2	90.0	110	----
Anions and Nutrients (QCLot: 1191279)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.7	90.0	110	----
Anions and Nutrients (QCLot: 1192240)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.0	85.0	115	----
Anions and Nutrients (QCLot: 1194491)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.0	80.0	120	----
Cyanides (QCLot: 1202164)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	99.2	80.0	120	----
Cyanides (QCLot: 1202165)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	99.8	80.0	120	----
Cyanides (QCLot: 1202166)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	97.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1194037)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.4	80.0	120	----
Total Metals (QCLot: 1196841)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.4	80.0	120	----
Total Metals (QCLot: 1204434)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	91.8	80.0	120	----
Total Metals (QCLot: 1204435)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	97.7	80.0	120	----
Total Metals (QCLot: 1204436)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	96.6	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.8	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.0	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	91.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	93.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	91.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	96.2	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	94.6	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	89.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	97.7	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.8	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	92.2	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	97.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1204436) - continued									
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	96.6	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	93.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.6	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	87.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	91.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.6	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	90.8	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	95.7	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.6	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	88.2	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1204966)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	118	80.0	120	----
Dissolved Metals (QCLot: 1204968)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	113	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	86.2	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	87.1	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.1	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	91.4	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.5	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.4	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	80.6	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	114	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204968) - continued									
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	118	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	118	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	105	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	116	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	107	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	117	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	97.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.0	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.6	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.3	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1191276)										
WP2326557-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1191277)										
WP2326557-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.58 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1191278)										
WP2326557-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.496 mg/L	0.5 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1191279)										
WP2326557-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1192240)										
WP2326557-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.120 mg/L	0.1 mg/L	120	75.0	125	----
Anions and Nutrients (QCLot: 1194491)										
WP2326557-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.241 mg/L	0.25 mg/L	96.3	70.0	130	----
Cyanides (QCLot: 1202164)										
WP2326557-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.128 mg/L	0.125 mg/L	102	75.0	125	----
Cyanides (QCLot: 1202165)										
WP2326557-001	Anonymous	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1202166)										
WP2326557-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.221 mg/L	0.25 mg/L	88.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1194037)										
WP2326576-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1196841)										
WP2326557-001	Anonymous	Mercury, total	7439-97-6	E508	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----
Total Metals (QCLot: 1204434)										
WP2326558-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	----
Total Metals (QCLot: 1204435)										
WP2326558-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	9.73 mg/L	10 mg/L	97.3	70.0	130	----
Total Metals (QCLot: 1204436)										
WP2326558-001	Anonymous	Aluminum, total	7429-90-5	E420	0.209 mg/L	0.2 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1204436) - continued										
WP2326558-001	Anonymous	Antimony, total	7440-36-0	E420	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Barium, total	7440-39-3	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0373 mg/L	0.04 mg/L	93.3	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00951 mg/L	0.01 mg/L	95.1	70.0	130	----
		Boron, total	7440-42-8	E420	0.094 mg/L	0.1 mg/L	93.7	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00974 mg/L	0.01 mg/L	97.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Copper, total	7440-50-8	E420	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		Iron, total	7439-89-6	E420	2.00 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0949 mg/L	0.1 mg/L	94.9	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0184 mg/L	0.02 mg/L	92.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0372 mg/L	0.04 mg/L	93.0	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.73 mg/L	10 mg/L	97.3	70.0	130	----
		Potassium, total	7440-09-7	E420	4.15 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Silicon, total	7440-21-3	E420	9.74 mg/L	10 mg/L	97.4	70.0	130	----
		Silver, total	7440-22-4	E420	0.00379 mg/L	0.004 mg/L	94.7	70.0	130	----
		Sodium, total	7440-23-5	E420	1.87 mg/L	2 mg/L	93.4	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.9 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0362 mg/L	0.04 mg/L	90.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00374 mg/L	0.004 mg/L	93.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0187 mg/L	0.02 mg/L	93.3	70.0	130	----
		Tin, total	7440-31-5	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0379 mg/L	0.04 mg/L	94.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0185 mg/L	0.02 mg/L	92.7	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00352 mg/L	0.004 mg/L	88.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1204436) - continued										
WP2326558-001	Anonymous	Vanadium, total	7440-62-2	E420	0.0989 mg/L	0.1 mg/L	98.9	70.0	130	----
		Zinc, total	7440-66-6	E420	0.390 mg/L	0.4 mg/L	97.6	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0376 mg/L	0.04 mg/L	94.0	70.0	130	----
Dissolved Metals (QCLot: 1200634)										
WP2326560-001	SW-11	Mercury, dissolved	7439-97-6	E509	0.0000994 mg/L	0.0001 mg/L	99.4	70.0	130	----
Dissolved Metals (QCLot: 1204966)										
WP2326559-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1204967)										
WP2326559-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	11.8 mg/L	10 mg/L	118	70.0	130	----
Dissolved Metals (QCLot: 1204968)										
WP2326559-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.205 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0327 mg/L	0.04 mg/L	81.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00927 mg/L	0.01 mg/L	92.7	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.083 mg/L	0.1 mg/L	83.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.08 mg/L	2 mg/L	104	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0795 mg/L	0.1 mg/L	79.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.8 mg/L	10 mg/L	118	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.68 mg/L	4 mg/L	117	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0464 mg/L	0.04 mg/L	116	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1204968) - continued										
WP2326559-001	Anonymous	Silicon, dissolved	7440-21-3	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	23.4 mg/L	20 mg/L	117	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0422 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00374 mg/L	0.004 mg/L	93.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.405 mg/L	0.4 mg/L	101	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0422 mg/L	0.04 mg/L	106	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ashley Moncrief	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 630-0203	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☑ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
Contact:		Email 7 aaron.peloquin@kinross.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-11	15-Oct-23	13:15	SW	9	X			7.08	5	120.4
	SW-12B	15-Oct-23	10:40	SW	9		X		6.87	5.3	58

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: AP	Date: 10/16/23	Time:	Received by:	Date: OCT 17 2023	Time: 900	Received by:	Time: 12-3r

Environmental Division
Winnipeg
Work Order Reference
WP2326560

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2328687**	Page	: 1 of 12
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Nov-2023 09:10
PO	: ----	Date Analysis Commenced	: 06-Nov-2023
C-O-C number	: ----	Issue Date	: 20-Nov-2023 09:08
Sampler	: ----		
Site	: PPR-022-3		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jenna Friesen	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL-B	SW-GL	CR-REF	CR-FDP	CR-DS
					Client sampling date / time	02-Nov-2023 15:10	02-Nov-2023 15:35	02-Nov-2023 09:45	02-Nov-2023 10:50	02-Nov-2023 11:20
						WP2328687-001	WP2328687-002	WP2328687-003	WP2328687-004	WP2328687-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.15	7.50	7.36	7.60	7.56
Temperature, field	----	EF001/WP	0.10	°C		5.20	5.20	2.40	3.10	1.70
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.7	<2.0	2.5	2.2	3.6
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		31.8	32.2	30.0	30.2	34.5
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		31.8	32.2	30.0	30.2	34.5
Conductivity	----	E100/WP	1.0	µS/cm		64.3	66.7	95.8	81.8	82.9
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		29.4	33.2	36.3	36.5	40.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		33.6	34.1	37.3	37.8	41.7
pH	----	E108/WP	0.10	pH units		7.48	7.56	7.48	7.52	7.58
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		45.5	51.2	58.2	66.5	35.8
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		210	2.3	5.0	4.4	7.1
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0117	0.0193	0.0081	0.0180	0.0129
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.20	0.20	2.47	2.44	1.69
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0176	<0.0050	0.0074	0.0109	0.0093
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0176	<0.0051	0.0074	0.0109	0.0093
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0163	0.0159	0.0293	0.0243	0.0264
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.69	0.56	4.88	4.77	3.31
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL-B	SW-GL	CR-REF	CR-FDP	CR-DS
					Client sampling date / time	02-Nov-2023 15:10	02-Nov-2023 15:35	02-Nov-2023 09:45	02-Nov-2023 10:50	02-Nov-2023 11:20
						WP2328687-001	WP2328687-002	WP2328687-003	WP2328687-004	WP2328687-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		10.0	10.0	11.9	12.4	14.6
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0150 RRV	0.0095	0.0211	0.0162 RRV	0.233
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00031	0.00033	0.00018
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00228 RRV	0.00239	0.00753	0.00744	0.00460
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00680 RRV	0.00685	0.00686	0.00684	0.0102
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000061
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.74	9.91	10.6	10.6	11.4
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000026
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010 RRV	0.00046
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050 RRV	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00017
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00143	0.00117	0.00124
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.235 RRV	0.230	0.044	0.043 RRV	0.334
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	0.000120
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	<0.0010	0.0013	0.0013	0.0016
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.25	2.27	2.64	2.74	3.21
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0159 RRV	0.0157	0.00117	0.00174 RRV	0.0145
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000100	0.000111	0.000197	0.000181	0.000227
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00126	0.00119	0.00111
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.738	0.737	0.971	0.977	1.13
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00191	0.00188	0.00151	0.00158	0.00197

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL-B	SW-GL	CR-REF	CR-FDP	CR-DS
					Client sampling date / time	02-Nov-2023 15:10	02-Nov-2023 15:35	02-Nov-2023 09:45	02-Nov-2023 10:50	02-Nov-2023 11:20
						WP2328687-001	WP2328687-002	WP2328687-003	WP2328687-004	WP2328687-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	0.000061	0.000103	0.000109	0.000095
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.97 RRV	0.92	1.64	1.67	2.65
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.22	1.24	2.38	2.27	2.04
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0216	0.0224	0.0289	0.0284	0.0265
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	1.79	1.79	0.99
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00043	<0.00030	0.00059	0.00040 RRV	0.0107
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000033	0.000034	0.000086	0.000074	0.000113
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00086
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	0.00024
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0228 RRV	0.0027	0.110	0.114 RRV	0.0256
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00033	0.00033	0.00023
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00319 RRV	0.00216	0.00858	0.00870	0.00488
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0121 RRV	0.00738	0.00837	0.00850	0.00922
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		8.57	9.60	10.4	10.5	11.1
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000017	0.000014	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00024	0.00026 RRV	0.00012
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050 RRV	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00011	0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL-B	SW-GL	CR-REF	CR-FDP	CR-DS
					Client sampling date / time	02-Nov-2023 15:10	02-Nov-2023 15:35	02-Nov-2023 09:45	02-Nov-2023 10:50	02-Nov-2023 11:20
						WP2328687-001	WP2328687-002	WP2328687-003	WP2328687-004	WP2328687-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00029	0.00030	0.00148	0.00138	0.00170
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		1.26 RRV	0.156 RRV	0.141	0.151 RRV	0.101
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000092	<0.000050	0.000086	0.000079	0.000066
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0011	0.0012	0.0012
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		1.95	2.24	2.50	2.50	3.18
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.331 RRV	0.0107 RRV	0.00592	0.00684 RRV	0.00791
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000105	0.000101	0.000172	0.000171	0.000254
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00138	0.00143	0.00095
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.741	0.736	1.02	1.02	1.08
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00176	0.00186	0.00165	0.00178	0.00153
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000068	0.000076	0.000091	0.000096	0.000092
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.34 RRV	0.867	1.82	1.97	2.09
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.16	1.17	2.24	2.46	2.05
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0187	0.0214	0.0286	0.0283	0.0280
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	1.74	1.70	1.08
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00065	<0.00030	0.00538	0.00578 RRV	0.00072
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000035	0.000032	0.000088	0.000088	0.000099
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00051	0.00053	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0011	<0.0010	0.0014
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL-B	SW-GL	CR-REF	CR-FDP	CR-DS
					Client sampling date / time	02-Nov-2023 15:10	02-Nov-2023 15:35	02-Nov-2023 09:45	02-Nov-2023 10:50	02-Nov-2023 11:20
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2328687-001	WP2328687-002	WP2328687-003	WP2328687-004	WP2328687-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-09	----	----	----	----
				Client sampling date / time	02-Nov-2023 12:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2328687-006	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.57	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	0.50	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.7	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	39.2	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	39.2	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	80.1	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	40.0	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	41.2	----	----	----	----
pH	----	E108/WP	0.10	pH units	7.64	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	57.2	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	8.6	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0178	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.27	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0179	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0179	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0459	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.69	----	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	----	----	----	----
					Client sampling date / time	02-Nov-2023 12:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2328687-006	--------	--------	--------	--------
						Result	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		17.1	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.229	----	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00148	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0104	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.0	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000024	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00050	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00018	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00083	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.396	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000137	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0014	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.34	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0148	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000197	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00069	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.12	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00216	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000098	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.68	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	----	----	----	----
					Client sampling date / time	02-Nov-2023 12:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2328687-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.56	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0255	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0106	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000128	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00092	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00025	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0253	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00142	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00976	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.9	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00011	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00062	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.141	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	----	----	----	----
					Client sampling date / time	02-Nov-2023 12:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2328687-006	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000059	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0011	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.10	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00966	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000203	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.11	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00176	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000086	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.25	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.58	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0251	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00094	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000112	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2328687**	Page	: 1 of 26
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Nov-2023 09:10
PO	: ----	Issue Date	: 20-Nov-2023 09:08
C-O-C number	: ----		
Sampler	: ----		
Site	: PPR-022-3		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-DS	E298	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-09	E298	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-DS	E235.Cl-L	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-FDP	E235.Cl-L	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-REF	E235.Cl-L	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-09	E235.Cl-L	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL	E235.Cl-L	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL-B	E235.Cl-L	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL	E235.NO3-L	02-Nov-2023	06-Nov-2023	3 days	3 days	✓	06-Nov-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL-B	E235.NO3-L	02-Nov-2023	06-Nov-2023	3 days	3 days	✓	06-Nov-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-09	E235.NO3-L	02-Nov-2023	06-Nov-2023	3 days	3 days	✓	06-Nov-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-DS	E235.NO3-L	02-Nov-2023	06-Nov-2023	3 days	4 days	× EHTR	06-Nov-2023	3 days	4 days	× EHTR-FM

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-FDP	E235.NO3-L	02-Nov-2023	06-Nov-2023	3 days	4 days	✗ EHTR	06-Nov-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-REF	E235.NO3-L	02-Nov-2023	06-Nov-2023	3 days	4 days	✗ EHTR	06-Nov-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL	E235.NO2-L	02-Nov-2023	06-Nov-2023	3 days	3 days	✓	06-Nov-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL-B	E235.NO2-L	02-Nov-2023	06-Nov-2023	3 days	3 days	✓	06-Nov-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-09	E235.NO2-L	02-Nov-2023	06-Nov-2023	3 days	3 days	✓	06-Nov-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-DS	E235.NO2-L	02-Nov-2023	06-Nov-2023	3 days	4 days	✗ EHTR	06-Nov-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-FDP	E235.NO2-L	02-Nov-2023	06-Nov-2023	3 days	4 days	✗ EHTR	06-Nov-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-REF	E235.NO2-L	02-Nov-2023	06-Nov-2023	3 days	4 days	✗ EHTR	06-Nov-2023	3 days	4 days	✗ EHTR-FM
Anions and Nutrients : Sulfate in Water by IC										
HDPE CR-DS	E235.SO4	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE CR-FDP	E235.SO4	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE CR-REF	E235.SO4	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-09	E235.SO4	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL	E235.SO4	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL-B	E235.SO4	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	06-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL	E372-U	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL-B	E372-U	02-Nov-2023	06-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E339-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.Cr-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.Cr-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-DS	E509	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-09	E421.P-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	02-Nov-2023	14-Nov-2023	180 days	12 days	✓	14-Nov-2023	180 days	12 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-DS	EF001	02-Nov-2023	----	----	----		06-Nov-2023	----	4 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-FDP	EF001	02-Nov-2023	----	----	----		06-Nov-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-REF	EF001	02-Nov-2023	----	----	----		06-Nov-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-09	EF001	02-Nov-2023	----	----	----		06-Nov-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL	EF001	02-Nov-2023	----	----	----		06-Nov-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL-B	EF001	02-Nov-2023	----	----	----		06-Nov-2023	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-DS	E358-L	02-Nov-2023	07-Nov-2023	28 days	5 days	✓	07-Nov-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-FDP	E358-L	02-Nov-2023	07-Nov-2023	28 days	5 days	✓	07-Nov-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-REF	E358-L	02-Nov-2023	07-Nov-2023	28 days	5 days	✓	07-Nov-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-09	E358-L	02-Nov-2023	07-Nov-2023	28 days	5 days	✓	07-Nov-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	02-Nov-2023	07-Nov-2023	28 days	5 days	✓	07-Nov-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL-B	E358-L	02-Nov-2023	07-Nov-2023	28 days	5 days	✓	07-Nov-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-DS	E283	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-FDP	E283	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-REF	E283	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-09	E283	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-GL	E283	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-GL-B	E283	02-Nov-2023	09-Nov-2023	14 days	7 days	✓	09-Nov-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
CR-DS	E290	02-Nov-2023	08-Nov-2023	14 days	6 days	✓	08-Nov-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE CR-FDP	E290	02-Nov-2023	08-Nov-2023	14 days	6 days	✓	08-Nov-2023	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE CR-REF	E290	02-Nov-2023	08-Nov-2023	14 days	6 days	✓	08-Nov-2023	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-09	E290	02-Nov-2023	08-Nov-2023	14 days	6 days	✓	08-Nov-2023	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL	E290	02-Nov-2023	08-Nov-2023	14 days	6 days	✓	08-Nov-2023	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL-B	E290	02-Nov-2023	08-Nov-2023	14 days	6 days	✓	08-Nov-2023	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-DS	E100	02-Nov-2023	08-Nov-2023	28 days	6 days	✓	08-Nov-2023	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-FDP	E100	02-Nov-2023	08-Nov-2023	28 days	6 days	✓	08-Nov-2023	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-REF	E100	02-Nov-2023	08-Nov-2023	28 days	6 days	✓	08-Nov-2023	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-09	E100	02-Nov-2023	08-Nov-2023	28 days	6 days	✓	08-Nov-2023	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE SW-GL	E100	02-Nov-2023	08-Nov-2023	28 days	6 days	✓	08-Nov-2023	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL-B	E100	02-Nov-2023	08-Nov-2023	28 days	6 days	✓	08-Nov-2023	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE SW-GL	E108	02-Nov-2023	08-Nov-2023	0.25 hrs	137 hrs	× EHTR-FM	08-Nov-2023	0.25 hrs	137 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL-B	E108	02-Nov-2023	08-Nov-2023	0.25 hrs	138 hrs	× EHTR-FM	08-Nov-2023	0.25 hrs	138 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-09	E108	02-Nov-2023	08-Nov-2023	0.25 hrs	140 hrs	× EHTR-FM	08-Nov-2023	0.25 hrs	140 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-DS	E108	02-Nov-2023	08-Nov-2023	0.25 hrs	141 hrs	× EHTR-FM	08-Nov-2023	0.25 hrs	142 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-FDP	E108	02-Nov-2023	08-Nov-2023	0.25 hrs	142 hrs	× EHTR-FM	08-Nov-2023	0.25 hrs	142 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-REF	E108	02-Nov-2023	08-Nov-2023	0.25 hrs	143 hrs	× EHTR-FM	08-Nov-2023	0.25 hrs	143 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-DS	E162-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-FDP	E162-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-REF	E162-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-09	E162-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL	E162-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL-B	E162-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	02-Nov-2023	----	----	----		07-Nov-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	02-Nov-2023	10-Nov-2023	28 days	8 days	✓	10-Nov-2023	20 days	0 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	02-Nov-2023	15-Nov-2023	180 days	13 days	✓	15-Nov-2023	180 days	13 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1230790	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1227831	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1225253	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1226210	1	6	16.6	5.0	✓
Conductivity in Water	E100	1227830	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1235883	0	7	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1232389	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1235882	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1228172	2	33	6.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1235884	0	7	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1228775	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1226208	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1226209	1	6	16.6	5.0	✓
pH by Meter	E108	1227829	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1226207	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1225130	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1237424	1	10	10.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1228773	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1232383	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1237423	0	14	0.0	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1225136	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1237425	1	10	10.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1225132	0	9	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1228774	1	15	6.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1230790	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1227831	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1225253	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1226210	1	6	16.6	5.0	✓
Conductivity in Water	E100	1227830	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1235883	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1232389	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1235882	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1228172	2	33	6.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1235884	1	7	14.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1228775	1	11	9.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1226208	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1226209	1	6	16.6	5.0	✓
pH by Meter	E108	1227829	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1226207	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1225130	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1237424	1	10	10.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1228773	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1232383	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1237423	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1225136	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1237425	1	10	10.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1225132	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1228774	1	15	6.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1230790	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1227831	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1225253	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1226210	1	6	16.6	5.0	✓
Conductivity in Water	E100	1227830	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1235883	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1232389	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1235882	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1228172	2	33	6.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1235884	1	7	14.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1228775	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1226208	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1226209	1	6	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1226207	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1225130	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1237424	1	10	10.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1228773	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1232383	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1237423	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1225136	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1237425	1	10	10.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1225132	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1228774	1	15	6.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1225253	1	16	6.2	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1226210	1	6	16.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1235883	0	7	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1232389	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1235882	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1228172	2	33	6.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1235884	0	7	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1228775	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1226208	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1226209	1	6	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1226207	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1237424	1	10	10.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1228773	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1232383	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1237423	0	14	0.0	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1225136	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1237425	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1228774	1	15	6.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2328687**	Page	: 1 of 16
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Nov-2023 09:10
PO	: ----	Date Analysis Commenced	: 06-Nov-2023
C-O-C number	: ----	Issue Date	: 20-Nov-2023 09:08
Sampler	: ---- 807 630 0203		
Site	: PPR-022-3		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jenna Friesen	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1225130)											
WP2328641-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	633	637	0.709%	20%	----
Physical Tests (QC Lot: 1227829)											
WP2328687-002	SW-GL	pH	----	E108	0.10	pH units	7.56	7.53	0.398%	4%	----
Physical Tests (QC Lot: 1227830)											
WP2328687-002	SW-GL	Conductivity	----	E100	1.0	µS/cm	66.7	67.6	1.34%	10%	----
Physical Tests (QC Lot: 1227831)											
WP2328687-002	SW-GL	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	32.2	32.7	1.54%	20%	----
Physical Tests (QC Lot: 1230790)											
WP2328687-001	SW-GL-B	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.7	2.1	0.6	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1225136)											
WP2328583-007	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0159	0.0165	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1225253)											
WP2328687-002	SW-GL	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0193	0.0118	0.0075	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226207)											
WP2328687-001	SW-GL-B	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.69	0.69	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226208)											
WP2328687-001	SW-GL-B	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0176	0.0170	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226209)											
WP2328687-001	SW-GL-B	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226210)											
WP2328687-001	SW-GL-B	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.20	0.20	0.0002	Diff <2x LOR	----
Cyanides (QC Lot: 1228773)											
WP2328583-010	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0848	0.0845	0.449%	20%	----
Cyanides (QC Lot: 1228774)											
WP2328583-010	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1228775)											
WP2328583-010	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1226082)											
WP2328583-006	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	2.24	2.27	0.03	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1228172)											
WP2328902-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.88	10.4	16.0%	20%	----
Total Metals (QC Lot: 1232383)											
WP2328652-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1237424)											
WP2328055-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00011	<0.00010	0.000009	Diff <2x LOR	----
Total Metals (QC Lot: 1237425)											
WP2328055-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1232389)											
WP2328369-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1235882)											
WP2327951-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0066	0.0067	0.00007	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00015	0.00014	0.000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00128	0.00122	4.70%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0138	0.0133	3.10%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.140	0.139	0.279%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	39.4	39.6	0.428%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000056	0.000055	0.0000005	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.0122	0.0122	0.185%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000254	0.000262	0.000008	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0499	0.0485	2.86%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	14.0	13.8	1.38%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00013	0.00012	0.00001	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00394	0.00388	1.52%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.155	0.113	0.042	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	8.72	8.60	1.42%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00464	0.00478	3.00%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000504	0.000533	5.47%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1235882) - continued											
WP2327951-004	Anonymous	Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.46	3.45	0.426%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	104	104	0.202%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.280	0.280	0.0892%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	103	103	0.370%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00012	0.00012	0.000008	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000052	0.000052	0.0000001	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00157	0.00153	0.00004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0119	0.0116	2.41%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1225130)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1225132)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1227830)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1227831)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1230790)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1225136)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1225253)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1226207)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1226208)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1226209)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1226210)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Cyanides (QCLot: 1228773)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1228774)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1228775)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1226082)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1228172)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1232383)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1232383) - continued						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1237423)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1237423) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1237424)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1237425)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1232389)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1235882)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1235882) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1235883)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1235884)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1225130)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	91.9	85.0	115	----
Physical Tests (QCLot: 1225132)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	98.3	85.0	115	----
Physical Tests (QCLot: 1227829)									
pH	----	E108	----	pH units	7 pH units	99.6	98.0	102	----
Physical Tests (QCLot: 1227830)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.5	90.0	110	----
Physical Tests (QCLot: 1227831)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	94.7	85.0	115	----
Physical Tests (QCLot: 1230790)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Anions and Nutrients (QCLot: 1225136)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.0	80.0	120	----
Anions and Nutrients (QCLot: 1225253)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	89.5	85.0	115	----
Anions and Nutrients (QCLot: 1226207)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1226208)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1226209)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1226210)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	102	90.0	110	----
Cyanides (QCLot: 1228773)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	91.3	80.0	120	----
Cyanides (QCLot: 1228774)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	96.2	80.0	120	----
Cyanides (QCLot: 1228775)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1226082)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	104	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1228172)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	94.0	80.0	120	----
Total Metals (QCLot: 1232383)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----
Total Metals (QCLot: 1237423)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	105	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	99.5	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	105	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	98.0	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	112	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	99.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1237423) - continued									
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	100.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	95.1	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Total Metals (QCLot: 1237424)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Total Metals (QCLot: 1237425)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1235882)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	108	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.1	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.3	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	98.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.5	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	93.5	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1235882) - continued									
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	106	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	99.0	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	101	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.2	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	105	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	107	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.2	80.0	120	----
Dissolved Metals (QCLot: 1235883)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1225136)										
WP2328583-008	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	0.25 mg/L	ND	70.0	130	----
Anions and Nutrients (QCLot: 1225253)										
WP2328687-002	SW-GL	Ammonia, total (as N)	7664-41-7	E298	0.0787 mg/L	0.1 mg/L	78.7	75.0	125	----
Anions and Nutrients (QCLot: 1226207)										
WP2328687-001	SW-GL-B	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1226208)										
WP2328687-001	SW-GL-B	Nitrate (as N)	14797-55-8	E235.NO3-L	2.50 mg/L	2.5 mg/L	99.9	75.0	125	----
Anions and Nutrients (QCLot: 1226209)										
WP2328687-001	SW-GL-B	Nitrite (as N)	14797-65-0	E235.NO2-L	0.494 mg/L	0.5 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 1226210)										
WP2328687-001	SW-GL-B	Chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
Cyanides (QCLot: 1228773)										
WP2328583-010	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.196 mg/L	0.25 mg/L	78.3	75.0	125	----
Cyanides (QCLot: 1228774)										
WP2328583-010	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.117 mg/L	0.125 mg/L	93.8	75.0	125	----
Cyanides (QCLot: 1228775)										
WP2328583-010	Anonymous	Cyanide, free	----	E339-L	0.122 mg/L	0.125 mg/L	97.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1226082)										
WP2328583-007	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.07 mg/L	5 mg/L	101	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1228172)										
WP2328902-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1232383)										
WP2328673-001	Anonymous	Mercury, total	7439-97-6	E508	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----
Total Metals (QCLot: 1237424)										
WP2328055-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
Total Metals (QCLot: 1237425)										
WP2328055-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	10.2 mg/L	10 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1232389)										
WP2328369-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000979 mg/L	0.0001 mg/L	97.9	70.0	130	----
Dissolved Metals (QCLot: 1235882)										
WP2327951-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.203 mg/L	0.2 mg/L	101	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0385 mg/L	0.04 mg/L	96.2	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00933 mg/L	0.01 mg/L	93.3	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.97 mg/L	2 mg/L	98.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0190 mg/L	0.02 mg/L	95.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0936 mg/L	0.1 mg/L	93.6	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0399 mg/L	0.04 mg/L	99.9	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0446 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00307 mg/L	0.004 mg/L	76.8	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00378 mg/L	0.004 mg/L	94.4	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1235882) - continued										
WP2327951-004	Anonymous	Titanium, dissolved	7440-32-6	E421	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00389 mg/L	0.004 mg/L	97.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.403 mg/L	0.4 mg/L	101	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐N/A	☐4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: EM/HH

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-GL-B	2-Nov-23	15:10	Water	9	X			7.15	5.2	47.7
	SW-GL	2-Nov-23	15:35	Water	9	X			7.5	5.2	47.9
	CR-REF	2-Nov-23	9:45	Water	9	X			7.36	2.4	507
	CR-FDP	2-Nov-23	10:50	Water	9	X			7.6	3.1	55.2
	CR-DS	2-Nov-23	11:20	Water	9	X			7.56	1.7	53.8
	SW-09	2-Nov-23	12:30	Water	9	X			7.57	0.5	48.7

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPM
Released by: EM	Date: 3 Nov 2023	Time:	Received by:	Date: Nov 06 2023	Time: 9:10	Received by:

11.6°C

Environmental Division
Winnipeg
Work Order Reference
WP2328687

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2328799**	Page	: 1 of 17
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Nov-2023 08:30
PO	: ----	Date Analysis Commenced	: 07-Nov-2023
C-O-C number	: ----	Issue Date	: 21-Nov-2023 11:36
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 12		
No. of samples analysed	: 12		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Sample Comments

Sample	Client Id	*Comment*
WP2328799-001	SW-TR	Sample(s) Hg-D -007: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Qualifiers

Qualifier	*Description*
DLIS	*Detection Limit Adjusted due to insufficient sample.*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-04	SW-01	SW-08	SW-08A
					Client sampling date / time	03-Nov-2023 14:00	03-Nov-2023 12:50	03-Nov-2023 12:00	04-Nov-2023 14:40	04-Nov-2023 13:00
						WP2328799-001	WP2328799-002	WP2328799-003	WP2328799-004	WP2328799-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		4.99	6.97	6.63	7.52	7.48
Temperature, field	----	EF001/WP	0.10	°C		0.60	0.30	1.20	0.10	0.20
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		19.4	3.1	8.7	3.0	5.9
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	39.0	16.1	38.7	63.8
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	39.0	16.1	38.7	63.8
Conductivity	----	E100/WP	1.0	µS/cm		32.8	79.3	49.2	80.9	165
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		10.3	41.8	29.0	41.0	80.2
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		10.8	41.2	29.4	41.9	82.6
pH	----	E108/WP	0.10	pH units		4.75	7.49	6.86	7.61	7.68
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		83.2 RRV	62.0	63.2	64.7	149
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		66.7	5.3	4.3	8.5	11.9
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0606	0.0073	0.0133	0.0116	0.0326
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.04	0.26	0.19	0.27	6.08
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0142	0.0182	<0.0050	0.0133	0.166
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0142	0.0182	<0.0051	0.0133	0.166
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.114	0.0274	0.0247	0.0312	0.0406
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.66	0.64	0.46	0.71	8.06
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0015	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0012	<0.0010	0.0011	<0.0010	0.0013

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-04	SW-01	SW-08	SW-08A
					Client sampling date / time	03-Nov-2023 14:00	03-Nov-2023 12:50	03-Nov-2023 12:00	04-Nov-2023 14:40	04-Nov-2023 13:00
						WP2328799-001	WP2328799-002	WP2328799-003	WP2328799-004	WP2328799-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0010	<0.0010	<0.0010	<0.0010	0.0011
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		48.3	15.4	43.9	13.6	32.8
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		1.10	0.137	0.343	0.265	0.643
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00019	<0.00010	0.00018	<0.00010	0.00017
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00716	0.00166	0.00496	0.00173	0.00309
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00994	0.0107	0.00678	0.0127	0.0188
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000040	<0.000020	0.000026	<0.000020	0.000039
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	0.011
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000363	0.0000052	0.0000091	0.0000072	0.0000151
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		2.62	10.9	7.62	11.0	22.0
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000117	0.000013	<0.000010	0.000030	0.000069
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00174	0.00031	0.00067	0.00051	0.00144
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00174	<0.00050	0.00067	0.00051	0.00144
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00048	0.00012	0.00016	0.00020	0.00052
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00249	0.00077	0.00070	0.00089	0.00182
Iron, total	7439-89-6	E420/WP	0.010	mg/L		1.17	0.296	0.503	0.425	1.34
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000766	0.000100	0.000123	0.000144	0.000277
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0014	0.0017	0.0014	0.0018	0.0031
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		1.04	3.40	2.51	3.50	6.73
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0203	0.0112	0.0119	0.0179	0.101
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000148	0.000206	0.000081	0.000234	0.000377
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00130	0.00061	0.00077	0.00071	0.00185
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.103	<0.030	<0.030	<0.030	0.038
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.103	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.196	1.12	0.679	1.18	1.46
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00089	0.00202	0.00204	0.00234	0.00272

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-04	SW-01	SW-08	SW-08A
					Client sampling date / time	03-Nov-2023 14:00	03-Nov-2023 12:50	03-Nov-2023 12:00	04-Nov-2023 14:40	04-Nov-2023 13:00
						WP2328799-001	WP2328799-002	WP2328799-003	WP2328799-004	WP2328799-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000189	0.000074	0.000109	0.000090	0.000125
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.96	2.64	1.32	2.87	8.11
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000014
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.21	1.59	1.82	1.60	5.41
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0131	0.0259	0.0216	0.0260	0.0537
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.93	<0.50	<0.50	<0.50	3.00
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	0.00030
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000014	<0.000010	<0.000010	<0.000010	0.000011
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00016	<0.00010	<0.00010	<0.00010	0.00016
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.00219	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0295	0.00520	0.00443	0.0111	0.0255
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00022
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000209	0.000121	0.000063	0.000133	0.000304
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00188	0.00089	0.00086	0.00120	0.00208
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0088	0.0031	<0.0030	<0.0030	0.0081
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00032	<0.00020	0.00028	0.00024	0.00077
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.601	0.0343	0.294	0.0282	0.114
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00017	<0.00010	0.00017	<0.00010	0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00660	0.00150	0.00453	0.00140	0.00262
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00513	0.0102	0.00632	0.0100	0.0133
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000034	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000158	<0.0000050	0.0000068	<0.0000050	0.0000114
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		2.43	11.1	7.71	11.0	21.6
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.000016	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00087	0.00015	0.00057	0.00014	0.00055
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00087	<0.00050	0.00057	<0.00050	0.00055
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00035	<0.00010	0.00014	<0.00010	0.00030

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-04	SW-01	SW-08	SW-08A
					Client sampling date / time	03-Nov-2023 14:00	03-Nov-2023 12:50	03-Nov-2023 12:00	04-Nov-2023 14:40	04-Nov-2023 13:00
						WP2328799-001	WP2328799-002	WP2328799-003	WP2328799-004	WP2328799-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00069	<0.00020	0.00063	0.00065	0.00122
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.726	0.143	0.446	0.157	0.686
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000184	<0.000050	0.000102	0.000064	0.000089
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0013	0.0016	0.0011	0.0012	0.0024
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		1.02	3.43	2.37	3.29	6.38
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0177	0.00772	0.0101	0.0130	0.0905
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000064	0.000210	0.000068	0.000239	0.000895
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00081	<0.00050	0.00072	<0.00050	0.00135
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.147	1.17	0.633	1.04	1.27
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00037	0.00171	0.00191	0.00177	0.00150
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000126	0.000072	0.000118	0.000086	0.000136
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.506	2.33	1.17	2.20	6.94
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.14	1.61	1.84	1.59	5.52
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0114	0.0245	0.0220	0.0284	0.0518
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.85	0.68	0.56	<0.50	3.11
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00012	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00757	0.00104	0.00338	0.00098	0.00397
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00018
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000067	0.000111	0.000057	0.000106	0.000264
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00092	<0.00050	0.00054	<0.00050	0.00090
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0060	<0.0010	0.0023	<0.0010	0.0058
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00035	<0.00030	0.00036	<0.00030	0.00060
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-TR	SW-04	SW-01	SW-08	SW-08A
					Client sampling date / time	03-Nov-2023 14:00	03-Nov-2023 12:50	03-Nov-2023 12:00	04-Nov-2023 14:40	04-Nov-2023 13:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2328799-001	WP2328799-002	WP2328799-003	WP2328799-004	WP2328799-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-TRAVEL BLANK	SW-FIELDBLANK01	SW-DUP01	SW-DUP02
					Client sampling date / time	04-Nov-2023 12:25	04-Nov-2023 00:00	04-Nov-2023 14:40	04-Nov-2023 14:40	05-Nov-2023 11:50
						WP2328799-006	WP2328799-007	WP2328799-008	WP2328799-009	WP2328799-010
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.76	----	----	7.52	7.01
Temperature, field	----	EF001/WP	0.10	°C		0.10	----	----	0.10	0.30
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		3.5	<2.0	<2.0	2.0	11.2
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		136	<1.0	<1.0	38.8	114
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		136	<1.0	<1.0	38.8	114
Conductivity	----	E100/WP	1.0	µS/cm		253	<1.0	<1.0	80.9	266
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		130	<0.50	<0.50	39.9	129
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		128	<0.50	<0.50	41.6	132
pH	----	E108/WP	0.10	pH units		8.16	5.33	5.27	7.60	7.63
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		140	<3.0	<3.0	53.7	258
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.1	<1.5 DLIS	<1.0	8.6	635
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	<0.0050	0.0074	0.0077	0.0185
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	----	----	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.08	<0.10	<0.10	0.28	15.3
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0992	<0.0050	<0.0050	0.0127	0.0151
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0992	<0.0051	<0.0051	0.0127	0.0151
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0121	<0.0020	<0.0020	0.0310	0.358
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		3.57	<0.30	<0.30	0.72	9.43
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0016
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0014
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0013

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-TRAVEL BLANK	SW-FIELDBLANK01	SW-DUP01	SW-DUP02
					Client sampling date / time	04-Nov-2023 12:25	04-Nov-2023 00:00	04-Nov-2023 14:40	04-Nov-2023 14:40	05-Nov-2023 11:50
						WP2328799-006	WP2328799-007	WP2328799-008	WP2328799-009	WP2328799-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		4.70	0.62	0.73	16.3	38.7
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0613	<0.0030	<0.0030	0.241	1.28
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00018
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00115	0.00012	0.00015	0.00169	0.00515
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0156	<0.00010	<0.00010	0.0130	0.0548
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	0.000077
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000057	0.0000359
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		37.2	<0.050	<0.050	11.0	32.9
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000028	0.000085
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00023	<0.00010	<0.00010	0.00047	0.00281
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00281
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00018	0.00305
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00083	0.00258
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.110	<0.010	<0.010	0.419	3.88
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000136	0.00104
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0057	<0.0010	<0.0010	0.0014	0.0044
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		8.65	<0.0050	<0.0050	3.42	12.1
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0235	<0.00010	<0.00010	0.0175	0.953
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000688	<0.000050	<0.000050	0.000219	0.000318
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00069	0.00407
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	0.157
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	0.157
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		2.16	<0.050	<0.050	1.14	2.40
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00072	<0.00020	<0.00020	0.00225	0.00406
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000142	<0.000050	<0.000050	0.000078	0.000183
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		6.88	<0.10	<0.10	2.82	8.39

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-TRAVEL BLANK	SW-FIELDBLANK01	SW-DUP01	SW-DUP02
					Client sampling date / time	04-Nov-2023 12:25	04-Nov-2023 00:00	04-Nov-2023 14:40	04-Nov-2023 14:40	05-Nov-2023 11:50
						WP2328799-006	WP2328799-007	WP2328799-008	WP2328799-009	WP2328799-010
						Result	Result	Result	Result	Result
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.80	<0.050	<0.050	1.58	10.2
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0568	<0.00020	<0.00020	0.0262	0.0828
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.15	<0.50	<0.50	<0.50	3.65
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000015
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00035
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00274	<0.00030	<0.00030	0.0101	0.0400
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00011
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.00138	<0.000010	<0.000010	0.000133	0.000253
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00072	<0.00050	<0.00050	0.00111	0.00460
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	0.0064
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	0.00021	0.00145
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0081	<0.0010	<0.0010	0.0269	0.163
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00012
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00091	<0.00010	<0.00010	0.00136	0.00475
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0141	<0.00010	<0.00010	0.0104	0.0283
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	0.000021
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000188
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		39.0	<0.050	<0.050	10.6	33.0
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00017	<0.00010	<0.00010	0.00011	0.00080
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00080
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00232
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00026	<0.00020	<0.00020	0.00114	0.00105
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.037	<0.010	<0.010	0.155	2.37

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-TRAVEL BLANK	SW-FIELDBLANK01	SW-DUP01	SW-DUP02
					Client sampling date / time	04-Nov-2023 12:25	04-Nov-2023 00:00	04-Nov-2023 14:40	04-Nov-2023 14:40	05-Nov-2023 11:50
						WP2328799-006	WP2328799-007	WP2328799-008	WP2328799-009	WP2328799-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000059	0.000129
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0052	<0.0010	<0.0010	0.0012	0.0030
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		7.91	<0.0050	<0.0050	3.27	11.4
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0203	<0.00010	<0.00010	0.0128	0.874
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000677	0.000117 RRV	<0.000050	0.000206	0.000441 RRV
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00282
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	0.045
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.93	<0.050	<0.050	1.02	2.10
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00057	<0.00020	<0.00020	0.00172	0.00223
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000140	<0.000050	<0.000050	0.000091	0.000171
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.39	<0.050	<0.050	2.24	6.80
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.85	<0.050	<0.050	1.57	10.1
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0562	<0.00020	<0.00020	0.0270	0.0792
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.34	<0.50	<0.50	<0.50	3.80
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00017
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00083	0.00648
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00014
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.00138	<0.000010	<0.000010	0.000108	0.000170
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00137
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0020
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	0.00106
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Laboratory	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Laboratory	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-FIELDBLANK02	SW-11	----	----	----
				Client sampling date / time	05-Nov-2023 12:15	05-Nov-2023 11:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2328799-011	WP2328799-012	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	----	7.01	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	----	0.30	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	9.5	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	112	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	112	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	<1.0	268	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	<0.50	127	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	<0.50	134	----	----	----
pH	----	E108/WP	0.10	pH units	5.35	7.58	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	<3.0	246	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	<1.0	526	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0066	0.0180	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	----	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	<0.10	15.3	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	0.0085	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	0.0085	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	<0.0020	0.269	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	<0.30	9.39	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	0.0016	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	0.0013	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	0.0014	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-FIELDBLANK02	SW-11	----	----	----
					Client sampling date / time	05-Nov-2023 12:15	05-Nov-2023 11:50	----	----	----
						WP2328799-011	WP2328799-012	--------	--------	--------
						Result	Result	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		<0.50	40.6	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		<0.0030	2.33	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00013	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00016	0.00529	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		<0.00010	0.0636	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000124	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000492	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		<0.050	32.9	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000128	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	0.00473	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00473	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	0.00395	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	0.00385	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		<0.010	5.14	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	0.00211	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	0.0056	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		<0.0050	12.5	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		<0.00010	0.974	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		<0.000050	0.000286	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	0.00575	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.306	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.306	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		<0.050	2.48	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		<0.00020	0.00518	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	0.000189	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		<0.10	9.33	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-FIELDBLANK02	SW-11	----	----	----
					Client sampling date / time	05-Nov-2023 12:15	05-Nov-2023 11:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2328799-011	WP2328799-012	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		<0.050	10.1	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		<0.00020	0.0840	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	3.48	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000024	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00055	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	0.0732	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		<0.000010	0.000351	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	0.00845	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0097	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00186	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		<0.0010	0.170	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	0.00013	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		<0.00010	0.00459	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		<0.00010	0.0268	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	0.000026	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	0.0000199	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		<0.050	32.2	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00076	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00076	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00225	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	0.00113	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		<0.010	2.40	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-FIELDBLANK02	SW-11	----	----	----
					Client sampling date / time	05-Nov-2023 12:15	05-Nov-2023 11:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2328799-011	WP2328799-012	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	0.000139	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	0.0032	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		<0.0050	11.3	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		<0.00010	0.823	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		<0.000050	0.000418 RRV	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	0.00276	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.046	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		<0.050	2.08	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		<0.00020	0.00227	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		<0.000050	0.000145	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		<0.050	6.75	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		<0.050	10.2	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		<0.00020	0.0800	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	3.70	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00017	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	0.00653	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	0.00014	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		<0.000010	0.000174	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00141	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0018	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	0.00106	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2328799**	Page	: 1 of 44
Client	: **Kinross Gold Corporation**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Nov-2023 08:30
PO	: ----	Issue Date	: 21-Nov-2023 11:34
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 12		
No. of samples analysed	: 12		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Matrix Spike (MS) Recoveries								
Dissolved Metals	Anonymous	Anonymous	Silver, dissolved	7440-22-4	E421	56.9 % MS-Ag	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
MS-Ag	*MS-Ag: Matrix Spike recovery for silver was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Silver was not detected. Reported result (< LOR) is reliable*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	05-Nov-2023	08-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP02	E298	05-Nov-2023	08-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELDBLANK02	E298	05-Nov-2023	08-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP01	E298	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELDBLANK01	E298	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E298	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	04-Nov-2023	10-Nov-2023	28 days	6 days	✓	10-Nov-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08A	E298	04-Nov-2023	10-Nov-2023	28 days	6 days	✓	10-Nov-2023	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	03-Nov-2023	10-Nov-2023	28 days	7 days	✓	10-Nov-2023	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	03-Nov-2023	10-Nov-2023	28 days	7 days	✓	10-Nov-2023	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	03-Nov-2023	10-Nov-2023	28 days	7 days	✓	10-Nov-2023	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.Cl-L	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELDBLANK02	E235.Cl-L	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.Cl-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.Cl-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.Cl-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP01	E235.Cl-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-FIELDBLANK01	E235.Cl-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TRAVEL BLANK	E235.Cl-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.Cl-L	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.Cl-L	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TR	E235.Cl-L	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-11	E235.NO3-L	05-Nov-2023	07-Nov-2023	7 days	2 days	✓	07-Nov-2023	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.NO3-L	05-Nov-2023	07-Nov-2023	7 days	2 days	✓	07-Nov-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELDBLANK02	E235.NO3-L	05-Nov-2023	07-Nov-2023	7 days	2 days	✓	07-Nov-2023	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO3-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO3-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP01	E235.NO3-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELDBLANK01	E235.NO3-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.NO3-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO3-L	03-Nov-2023	07-Nov-2023	7 days	4 days	✓	07-Nov-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO3-L	03-Nov-2023	07-Nov-2023	7 days	4 days	✓	07-Nov-2023	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO3-L	03-Nov-2023	07-Nov-2023	7 days	4 days	✓	07-Nov-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO2-L	05-Nov-2023	07-Nov-2023	7 days	2 days	✓	07-Nov-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.NO2-L	05-Nov-2023	07-Nov-2023	7 days	2 days	✓	07-Nov-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELDBLANK02	E235.NO2-L	05-Nov-2023	07-Nov-2023	7 days	2 days	✓	07-Nov-2023	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO2-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO2-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO2-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP01	E235.NO2-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELDBLANK01	E235.NO2-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.NO2-L	04-Nov-2023	07-Nov-2023	7 days	3 days	✓	07-Nov-2023	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO2-L	03-Nov-2023	07-Nov-2023	7 days	4 days	✓	07-Nov-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO2-L	03-Nov-2023	07-Nov-2023	7 days	4 days	✓	07-Nov-2023	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO2-L	03-Nov-2023	07-Nov-2023	7 days	4 days	✓	07-Nov-2023	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-11	E235.SO4	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-DUP02	E235.SO4	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-FIELDBLANK02	E235.SO4	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-03	E235.SO4	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08	E235.SO4	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08A	E235.SO4	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-DUP01	E235.SO4	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-FIELDBLANK01	E235.SO4	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.SO4	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-01	E235.SO4	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-04	E235.SO4	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TR	E235.SO4	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	08-Nov-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP02	E372-U	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	08-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-FIELDBLANK02	E372-U	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	08-Nov-2023	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-03	E372-U	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08A	E372-U	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP01	E372-U	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-FIELDBLANK01	E372-U	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E372-U	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E339-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-DUP02	E339-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-FIELDBLANK02	E339-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-03	E339-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08A	E339-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-DUP01	E339-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELDBLANK01	E339-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E339-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E333-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELDBLANK02	E333-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP01	E333-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELDBLANK01	E333-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E333-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E336-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELDBLANK02	E336-L	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	10-Nov-2023	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP01	E336-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELDBLANK01	E336-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E336-L	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	10-Nov-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	03-Nov-2023	10-Nov-2023	14 days	7 days	✓	10-Nov-2023	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP02	E421.Cr-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-FIELDBLANK02	E421.Cr-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	03-Nov-2023	15-Nov-2023	180 days	12 days	✓	15-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-DUP01	E421.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-FIELDBLANK01	E421.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TR	E421.Cr-L	03-Nov-2023	15-Nov-2023	180 days	12 days	✓	15-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-01	E421.Cr-L	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	05-Nov-2023	15-Nov-2023	28 days	10 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP02	E509	05-Nov-2023	15-Nov-2023	28 days	10 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-FIELDBLANK02	E509	05-Nov-2023	15-Nov-2023	28 days	10 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	04-Nov-2023	15-Nov-2023	28 days	11 days	✓	15-Nov-2023	28 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08	E509	04-Nov-2023	15-Nov-2023	28 days	11 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08A	E509	04-Nov-2023	15-Nov-2023	28 days	11 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-DUP01	E509	04-Nov-2023	15-Nov-2023	28 days	11 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-FIELDBLANK01	E509	04-Nov-2023	15-Nov-2023	28 days	11 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-TRAVEL BLANK	E509	04-Nov-2023	15-Nov-2023	28 days	11 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-01	E509	03-Nov-2023	15-Nov-2023	28 days	12 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-04	E509	03-Nov-2023	15-Nov-2023	28 days	12 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-TR	E509	03-Nov-2023	15-Nov-2023	28 days	12 days	✓	15-Nov-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-11	E421	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP02	E421	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-FIELDBLANK02	E421	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	03-Nov-2023	15-Nov-2023	180 days	12 days	✓	15-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08A	E421	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP01	E421	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-FIELDBLANK01	E421	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	03-Nov-2023	15-Nov-2023	180 days	12 days	✓	15-Nov-2023	180 days	12 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP02	E421.P-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-FIELDBLANK02	E421.P-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-04	E421.P-L	03-Nov-2023	15-Nov-2023	180 days	12 days	✓	15-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08A	E421.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP01	E421.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-FIELDBLANK01	E421.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	03-Nov-2023	15-Nov-2023	180 days	12 days	✓	15-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-11	EF001	05-Nov-2023	----	----	----		07-Nov-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-DUP02	EF001	05-Nov-2023	----	----	----		07-Nov-2023	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-03	EF001	04-Nov-2023	----	----	----		07-Nov-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	04-Nov-2023	----	----	----		07-Nov-2023	----	3 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08A	EF001	04-Nov-2023	----	----	----		07-Nov-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-DUP01	EF001	04-Nov-2023	----	----	----		07-Nov-2023	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	03-Nov-2023	----	----	----		07-Nov-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	03-Nov-2023	----	----	----		07-Nov-2023	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	03-Nov-2023	----	----	----		07-Nov-2023	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-11	E358-L	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-DUP02	E358-L	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-FIELDBLANK02	E358-L	05-Nov-2023	07-Nov-2023	28 days	2 days	✓	07-Nov-2023	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-03	E358-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP01	E358-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-FIELDBLANK01	E358-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TRAVEL BLANK	E358-L	04-Nov-2023	07-Nov-2023	28 days	3 days	✓	07-Nov-2023	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-04	E358-L	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TR	E358-L	03-Nov-2023	07-Nov-2023	28 days	4 days	✓	07-Nov-2023	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-03	E283	04-Nov-2023	09-Nov-2023	14 days	5 days	✓	09-Nov-2023	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-08	E283	04-Nov-2023	09-Nov-2023	14 days	5 days	✓	09-Nov-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-08A	E283	04-Nov-2023	09-Nov-2023	14 days	5 days	✓	09-Nov-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-FIELDBLANK01	E283	04-Nov-2023	09-Nov-2023	14 days	5 days	✓	09-Nov-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-TRAVEL BLANK	E283	04-Nov-2023	09-Nov-2023	14 days	5 days	✓	09-Nov-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-11	E283	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	11-Nov-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-DUP02	E283	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	11-Nov-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-FIELDBLANK02	E283	05-Nov-2023	10-Nov-2023	14 days	5 days	✓	11-Nov-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-01	E283	03-Nov-2023	09-Nov-2023	14 days	6 days	✓	09-Nov-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-04	E283	03-Nov-2023	09-Nov-2023	14 days	6 days	✓	09-Nov-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
SW-TR	E283	03-Nov-2023	09-Nov-2023	14 days	6 days	✓	09-Nov-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
SW-DUP01	E283	04-Nov-2023	10-Nov-2023	14 days	6 days	✓	11-Nov-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-11	E290	05-Nov-2023	08-Nov-2023	14 days	3 days	✓	08-Nov-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-DUP02	E290	05-Nov-2023	08-Nov-2023	14 days	3 days	✓	08-Nov-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-FIELDBLANK02	E290	05-Nov-2023	08-Nov-2023	14 days	3 days	✓	08-Nov-2023	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-03	E290	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-08	E290	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-08A	E290	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-DUP01	E290	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-FIELDBLANK01	E290	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TRAVEL BLANK	E290	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	03-Nov-2023	08-Nov-2023	14 days	5 days	✓	08-Nov-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	03-Nov-2023	08-Nov-2023	14 days	5 days	✓	08-Nov-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	03-Nov-2023	08-Nov-2023	14 days	5 days	✓	08-Nov-2023	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	05-Nov-2023	08-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP02	E100	05-Nov-2023	08-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELDBLANK02	E100	05-Nov-2023	08-Nov-2023	28 days	3 days	✓	08-Nov-2023	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08A	E100	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP01	E100	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELDBLANK01	E100	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TRAVEL BLANK	E100	04-Nov-2023	08-Nov-2023	28 days	4 days	✓	08-Nov-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	03-Nov-2023	08-Nov-2023	28 days	5 days	✓	08-Nov-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	03-Nov-2023	08-Nov-2023	28 days	5 days	✓	08-Nov-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	03-Nov-2023	08-Nov-2023	28 days	5 days	✓	08-Nov-2023	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	05-Nov-2023	08-Nov-2023	14 days	3 days	✓	08-Nov-2023	14 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP02	E108	05-Nov-2023	08-Nov-2023	14 days	3 days	✓	08-Nov-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELDBLANK02	E108	05-Nov-2023	08-Nov-2023	14 days	3 days	✓	08-Nov-2023	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08A	E108	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP01	E108	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELDBLANK01	E108	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TRAVEL BLANK	E108	04-Nov-2023	08-Nov-2023	14 days	4 days	✓	08-Nov-2023	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	03-Nov-2023	08-Nov-2023	14 days	5 days	✓	08-Nov-2023	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	03-Nov-2023	08-Nov-2023	14 days	5 days	✓	08-Nov-2023	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	03-Nov-2023	08-Nov-2023	14 days	5 days	✓	08-Nov-2023	14 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	05-Nov-2023	----	----	----		08-Nov-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP02	E162-L	05-Nov-2023	----	----	----		08-Nov-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-FIELDBLANK02	E162-L	05-Nov-2023	----	----	----		08-Nov-2023	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08A	E162-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP01	E162-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-FIELDBLANK01	E162-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E162-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	03-Nov-2023	----	----	----		08-Nov-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	03-Nov-2023	----	----	----		08-Nov-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	03-Nov-2023	----	----	----		08-Nov-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	05-Nov-2023	----	----	----		08-Nov-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP02	E160-L	05-Nov-2023	----	----	----		08-Nov-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELDBLANK02	E160-L	05-Nov-2023	----	----	----		08-Nov-2023	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP01	E160-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELDBLANK01	E160-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TRAVEL BLANK	E160-L	04-Nov-2023	----	----	----		08-Nov-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	03-Nov-2023	----	----	----		08-Nov-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	03-Nov-2023	----	----	----		08-Nov-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	03-Nov-2023	----	----	----		08-Nov-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP02	E420.Cr-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELDBLANK02	E420.Cr-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP01	E420.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELDBLANK01	E420.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420.Cr-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	05-Nov-2023	10-Nov-2023	28 days	5 days	✓	10-Nov-2023	23 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP02	E508	05-Nov-2023	10-Nov-2023	28 days	5 days	✓	10-Nov-2023	23 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELDBLANK02	E508	05-Nov-2023	10-Nov-2023	28 days	5 days	✓	10-Nov-2023	23 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	04-Nov-2023	10-Nov-2023	28 days	6 days	✓	10-Nov-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	04-Nov-2023	10-Nov-2023	28 days	6 days	✓	10-Nov-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	04-Nov-2023	10-Nov-2023	28 days	6 days	✓	10-Nov-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP01	E508	04-Nov-2023	10-Nov-2023	28 days	6 days	✓	10-Nov-2023	22 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELDBLANK01	E508	04-Nov-2023	10-Nov-2023	28 days	6 days	✓	10-Nov-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TRAVEL BLANK	E508	04-Nov-2023	10-Nov-2023	28 days	6 days	✓	10-Nov-2023	22 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	03-Nov-2023	10-Nov-2023	28 days	7 days	✓	10-Nov-2023	21 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	03-Nov-2023	10-Nov-2023	28 days	7 days	✓	10-Nov-2023	21 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	03-Nov-2023	10-Nov-2023	28 days	7 days	✓	10-Nov-2023	21 days	0 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP02	E420	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELDBLANK02	E420	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP01	E420	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELDBLANK01	E420	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP02	E420.P-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELDBLANK02	E420.P-L	05-Nov-2023	16-Nov-2023	180 days	11 days	✓	16-Nov-2023	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP01	E420.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELDBLANK01	E420.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420.P-L	04-Nov-2023	16-Nov-2023	180 days	12 days	✓	16-Nov-2023	180 days	12 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-04	E420.P-L	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TR	E420.P-L	03-Nov-2023	16-Nov-2023	180 days	13 days	✓	16-Nov-2023	180 days	13 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1230790	2	24	8.3	5.0	✓
Alkalinity Species by Titration	E290	1227843	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1229026	2	21	9.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1226978	1	24	4.1	5.0	✗
Conductivity in Water	E100	1227842	1	12	8.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1237596	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1237377	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1237595	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1226470	2	32	6.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1237594	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1232366	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1226976	1	24	4.1	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1226977	1	24	4.1	5.0	✗
pH by Meter	E108	1227841	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1226975	2	31	6.4	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1227049	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1239286	1	14	7.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1232365	2	40	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1232383	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1239285	2	39	5.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1226956	2	25	8.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1239283	2	19	10.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1227047	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1232364	2	31	6.4	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1230790	2	24	8.3	5.0	✓
Alkalinity Species by Titration	E290	1227843	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1229026	2	21	9.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1226978	2	24	8.3	5.0	✓
Conductivity in Water	E100	1227842	1	12	8.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1237596	2	15	13.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1237377	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1237595	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1226470	2	32	6.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1237594	2	16	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1232366	1	15	6.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1226976	2	24	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1226977	2	24	8.3	5.0	✓
pH by Meter	E108	1227841	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1226975	2	31	6.4	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1227049	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1239286	2	14	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1232365	2	40	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1232383	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1239285	2	39	5.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1226956	2	25	8.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1239283	2	19	10.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1227047	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1232364	2	31	6.4	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1230790	2	24	8.3	5.0	✓
Alkalinity Species by Titration	E290	1227843	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1229026	2	21	9.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1226978	2	24	8.3	5.0	✓
Conductivity in Water	E100	1227842	1	12	8.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1237596	2	15	13.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1237377	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1237595	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1226470	2	32	6.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1237594	2	16	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1232366	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1226976	2	24	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1226977	2	24	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1226975	2	31	6.4	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1227049	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1239286	2	14	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1232365	2	40	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1232383	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1239285	2	39	5.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1226956	2	25	8.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1239283	2	19	10.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1227047	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1232364	2	31	6.4	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1229026	2	21	9.5	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1226978	1	24	4.1	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1237596	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1237377	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1237595	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1226470	2	32	6.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1237594	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1232366	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1226976	1	24	4.1	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1226977	1	24	4.1	5.0	✗
Sulfate in Water by IC	E235.SO4	1226975	2	31	6.4	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1239286	1	14	7.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1232365	2	40	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1232383	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1239285	2	39	5.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1226956	2	25	8.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1239283	2	19	10.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1232364	2	31	6.4	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2328799**	Page	: 1 of 30
Client	: Kinross Gold Corporation	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. A Kinross Company 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Nov-2023 08:30
PO	: ----	Date Analysis Commenced	: 07-Nov-2023
C-O-C number	: ----	Issue Date	: 21-Nov-2023 11:34
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 12		
No. of samples analysed	: 12		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1227047)											
WP2328798-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	29.7	34.9	15.9%	20%	----
Physical Tests (QC Lot: 1227049)											
WP2328792-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	804	804	0.0622%	20%	----
Physical Tests (QC Lot: 1227841)											
WP2328799-002	SW-04	pH	----	E108	0.10	pH units	7.49	7.51	0.267%	4%	----
Physical Tests (QC Lot: 1227842)											
WP2328799-002	SW-04	Conductivity	----	E100	1.0	µS/cm	79.3	79.5	0.252%	10%	----
Physical Tests (QC Lot: 1227843)											
WP2328799-002	SW-04	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	39.0	38.4	1.55%	20%	----
Physical Tests (QC Lot: 1230790)											
WP2328687-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.7	2.1	0.6	Diff <2x LOR	----
Physical Tests (QC Lot: 1232614)											
WP2328799-009	SW-DUP01	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.0	<2.0	0.02	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226956)											
WP2328713-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0800	mg/L	23.4	23.5	0.751%	20%	----
Anions and Nutrients (QC Lot: 1226962)											
WP2328799-007	SW-TRAVEL BLANK	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	<0.0020	<0.0020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226975)											
WP2328796-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226984)											
WP2328799-009	SW-DUP01	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.72	0.72	0.005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226985)											
WP2328799-009	SW-DUP01	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.28	0.28	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226986)											
WP2328799-009	SW-DUP01	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0127	0.0130	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1226987)											
WP2328799-009	SW-DUP01	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1229026)											
WP2328852-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0348	0.0352	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1233087)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1233087) - continued											
WP2328799-001	SW-TR	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0606	0.0586	3.42%	20%	----
Cyanides (QC Lot: 1232364)											
WP2328798-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1232365)											
WP2328798-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1232366)											
WP2328798-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1232367)											
WP2328799-004	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1232368)											
WP2328799-004	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1226470)											
WP2328796-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	67.6	70.0	3.48%	20%	----
Organic / Inorganic Carbon (QC Lot: 1228172)											
WP2328902-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.88	10.4	16.0%	20%	----
Total Metals (QC Lot: 1232383)											
WP2328652-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1232385)											
WP2328799-006	SW-03	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1239283)											
WP2328089-002	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<30 µg/L	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1239285)											
WP2328089-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<3.0 µg/L	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.56 µg/L	0.00052	0.00003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.81 µg/L	0.00081	0.000004	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	103 µg/L	0.103	0.486%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	55 µg/L	0.057	0.002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0092 µg/L	0.0000119	0.0000027	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	101	98.1	2.62%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1239285) - continued											
WP2328089-002	Anonymous	Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.24 µg/L	0.00023	0.00001	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	17.0 µg/L	0.0171	0.822%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	18 µg/L	0.017	0.0009	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.241 µg/L	0.000245	0.000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0270	0.0274	1.45%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	45000 µg/L	45.4	0.936%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	96.0 µg/L	0.0940	2.14%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	2.60 µg/L	0.00248	4.54%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	3.33 µg/L	0.00332	0.000002	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	5030 µg/L	5.10	1.43%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	1.12 µg/L	0.00103	0.00008	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	1.92 µg/L	0.00205	6.69%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	11600 µg/L	11.1	3.92%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	31600 µg/L	31.7	0.359%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	227 µg/L	0.228	0.562%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	55500 µg/L	55.8	0.526%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	16.8 µg/L	0.0166	1.31%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.60 µg/L	0.00062	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	21.9 µg/L	0.0221	0.0003	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1239298)											
WP2328799-004	SW-08	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.265	0.235	12.0%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00173	0.00164	5.24%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0127	0.0122	3.26%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1239298) - continued											
WP2328799-004	SW-08	Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000072	<0.0000050	0.0000022	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	11.0	10.8	2.06%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000030	0.000026	0.000004	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00051	<0.00050	0.00001	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00020	0.00018	0.00002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00089	0.00088	0.000005	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.425	0.412	3.19%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000144	0.000140	0.000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0018	0.0016	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	3.50	3.32	5.43%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0179	0.0171	4.53%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000234	0.000206	0.000028	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00071	0.00073	0.00003	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.18	1.13	3.94%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00234	0.00206	12.6%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000090	0.000112	0.000022	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.87	2.71	5.72%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.60	1.56	2.26%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0260	0.0256	1.36%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0111	0.00982	12.2%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000133	0.000131	1.46%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00120	0.00107	0.00012	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00024	0.00020	0.00004	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1239299)											
WP2328799-004	SW-08	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00051	0.00046	0.00005	Diff <2x LOR	----
Total Metals (QC Lot: 1239300)											
WP2328799-004	SW-08	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1237377)											
WP2328799-001	SW-TR	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1237595)											
WP2328077-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.117	0.112	4.00%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00189	0.00193	1.85%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.0260	0.0261	0.497%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0192	0.0192	0.321%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000115	0.0000153	0.0000038	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	33.2	33.0	0.510%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000074	0.000074	0.0000007	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00040	0.00038	0.00001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00197	0.00206	4.46%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.745	0.726	2.64%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000090	0.000088	0.000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0038	0.0036	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	8.67	8.48	2.22%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0396	0.0393	0.614%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000424	0.000429	0.000005	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00822	0.00812	1.31%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.12	2.08	2.00%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00308	0.00309	0.336%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000122	0.000103	0.000020	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.40	5.23	3.07%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	3.21	3.24	0.863%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0748	0.0745	0.384%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1237595) - continued											
WP2328077-002	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	16.8	16.0	4.85%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000016	0.000016	0.00000004	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00252	0.00264	0.00013	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000185	0.000189	2.16%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0021	0.0021	0.00006	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00030	0.00030	0.000004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1239815)											
WP2328239-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1239816)											
WP2328239-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1239817)											
WP2328239-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00083	0.00082	0.000010	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00939	0.00926	1.43%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.354	0.310	13.2%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.024	0.025	0.0005	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	68.9	67.6	1.99%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000026	0.000024	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00059	0.00059	0.000002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	1.76	1.69	4.36%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0080	0.0081	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	16.3	16.2	0.876%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.476	0.488	2.49%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1239817) - continued											
WP2328239-001	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00102	0.00104	1.75%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00217	0.00215	0.00002	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	5.20	5.29	1.62%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00266	0.00269	1.11%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000079	0.000051	0.000028	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	9.55	9.49	0.636%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000020	<0.000010	0.000010	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	6.55	6.43	1.88%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.176	0.173	1.79%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.85	1.97	0.12	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00019	0.00019	0.000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00132	0.00134	1.72%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00070	0.00069	0.000008	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1227047)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1227049)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1227842)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1227843)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1230790)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1232614)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1226956)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1226962)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1226975)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1226976)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1226977)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1226978)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1226984)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1226985)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1226986)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1226987)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1229026)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1229026) - continued						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1233087)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1232364)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1232365)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1232366)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1232367)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1232368)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1226470)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1228172)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1232383)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1232385)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1239283)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1239285)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1239285) - continued						
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1239286)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1239298)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1239298) - continued						
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1239299)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1239300)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1237377)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1237594)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1237595)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1237595) - continued						
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1237596)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1239815)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1239816)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1239817)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1239817) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1227047)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	106	85.0	115	----
Physical Tests (QCLot: 1227049)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	90.2	85.0	115	----
Physical Tests (QCLot: 1227841)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1227842)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1227843)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	94.0	85.0	115	----
Physical Tests (QCLot: 1230790)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Physical Tests (QCLot: 1232614)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	106	85.0	115	----
Anions and Nutrients (QCLot: 1226956)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.7	80.0	120	----
Anions and Nutrients (QCLot: 1226962)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.6	80.0	120	----
Anions and Nutrients (QCLot: 1226975)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1226976)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1226977)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1226978)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1226984)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1226985)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1226986)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1226987)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1229026)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	93.7	85.0	115	----
Anions and Nutrients (QCLot: 1233087)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Cyanides (QCLot: 1232364)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	97.9	80.0	120	----
Cyanides (QCLot: 1232365)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	82.3	80.0	120	----
Cyanides (QCLot: 1232366)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.7	80.0	120	----
Cyanides (QCLot: 1232367)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	86.4	80.0	120	----
Cyanides (QCLot: 1232368)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	98.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1226470)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1228172)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	94.0	80.0	120	----
Total Metals (QCLot: 1232383)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----
Total Metals (QCLot: 1232385)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----
Total Metals (QCLot: 1239283)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Total Metals (QCLot: 1239285)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	108	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1239285) - continued									
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.6	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.4	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	96.3	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	114	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	98.0	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	91.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	99.3	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	94.3	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	98.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	94.4	80.0	120	----
Total Metals (QCLot: 1239286)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
Total Metals (QCLot: 1239298)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1239298) - continued									
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	108	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.1	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.2	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.3	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.7	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.4	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.9	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	95.9	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	115	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	99.6	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	98.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.1	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.7	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	93.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.7	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1239298) - continued									
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.9	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	93.4	80.0	120	----
Total Metals (QCLot: 1239299)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Total Metals (QCLot: 1239300)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	112	80.0	120	----
Dissolved Metals (QCLot: 1237595)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	96.8	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	112	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	112	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1237595) - continued									
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	99.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	98.7	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.4	80.0	120	----
Dissolved Metals (QCLot: 1237596)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1239815)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 1239817)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	107	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.4	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	109	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	107	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	92.6	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	109	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1239817) - continued									
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	110	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	101	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	108	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	98.5	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.8	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	93.6	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	106	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.2	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	96.5	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1226956)										
WP2328713-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.217 mg/L	0.25 mg/L	86.9	70.0	130	----
Anions and Nutrients (QCLot: 1226962)										
WP2328799-008	SW-FIELDBLANK01	Phosphorus, total	7723-14-0	E372-U	0.232 mg/L	0.25 mg/L	92.8	70.0	130	----
Anions and Nutrients (QCLot: 1226975)										
WP2328796-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1226984)										
WP2328799-009	SW-DUP01	Sulfate (as SO4)	14808-79-8	E235.SO4	99.0 mg/L	100 mg/L	99.0	75.0	125	----
Anions and Nutrients (QCLot: 1226985)										
WP2328799-009	SW-DUP01	Chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1226986)										
WP2328799-009	SW-DUP01	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1226987)										
WP2328799-009	SW-DUP01	Nitrite (as N)	14797-65-0	E235.NO2-L	0.518 mg/L	0.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1229026)										
WP2328852-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.103 mg/L	0.1 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1233087)										
WP2328799-001	SW-TR	Ammonia, total (as N)	7664-41-7	E298	0.118 mg/L	0.1 mg/L	118	75.0	125	----
Cyanides (QCLot: 1232364)										
WP2328798-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.122 mg/L	0.125 mg/L	97.3	75.0	125	----
Cyanides (QCLot: 1232365)										
WP2328798-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.219 mg/L	0.25 mg/L	87.4	75.0	125	----
Cyanides (QCLot: 1232366)										
WP2328798-001	Anonymous	Cyanide, free	----	E339-L	0.123 mg/L	0.125 mg/L	98.2	75.0	125	----
Cyanides (QCLot: 1232367)										
WP2328799-004	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.224 mg/L	0.25 mg/L	89.6	75.0	125	----
Cyanides (QCLot: 1232368)										
WP2328799-004	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.127 mg/L	0.125 mg/L	102	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1226470)										
WP2328796-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1228172)										
WP2328902-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1232383)										
WP2328673-001	Anonymous	Mercury, total	7439-97-6	E508	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----
Total Metals (QCLot: 1232385)										
WP2328799-007	SW-TRAVEL BLANK	Mercury, total	7439-97-6	E508	0.000103 mg/L	0.0001 mg/L	103	70.0	130	----
Total Metals (QCLot: 1239283)										
WP2328089-002	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	11.2 mg/L	10 mg/L	112	70.0	130	----
Total Metals (QCLot: 1239285)										
WP2328089-002	Anonymous	Aluminum, total	7429-90-5	E420	0.220 mg/L	0.2 mg/L	110	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Boron, total	7440-42-8	E420	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00430 mg/L	0.004 mg/L	107	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, total	7440-50-8	E420	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Iron, total	7439-89-6	E420	2.13 mg/L	2 mg/L	106	70.0	130	----
		Lead, total	7439-92-1	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.2 mg/L	10 mg/L	112	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1239285) - continued										
WP2328089-002	Anonymous	Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Tin, total	7440-31-5	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0433 mg/L	0.04 mg/L	108	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Uranium, total	7440-61-1	E420	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Zinc, total	7440-66-6	E420	0.402 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
Total Metals (QCLot: 1239298)										
WP2328799-004	SW-08	Aluminum, total	7429-90-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0393 mg/L	0.04 mg/L	98.3	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00989 mg/L	0.01 mg/L	98.9	70.0	130	----
		Boron, total	7440-42-8	E420	0.100 mg/L	0.1 mg/L	99.6	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00418 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Copper, total	7440-50-8	E420	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Iron, total	7439-89-6	E420	1.93 mg/L	2 mg/L	96.7	70.0	130	----
		Lead, total	7439-92-1	E420	0.0188 mg/L	0.02 mg/L	94.2	70.0	130	----
		Lithium, total	7439-93-2	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1239298) - continued										
WP2328799-004	SW-08	Nickel, total	7440-02-0	E420	0.0395 mg/L	0.04 mg/L	98.9	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.1 mg/L	10 mg/L	101	70.0	130	----
		Potassium, total	7440-09-7	E420	4.05 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Silicon, total	7440-21-3	E420	9.97 mg/L	10 mg/L	99.7	70.0	130	----
		Silver, total	7440-22-4	E420	0.00397 mg/L	0.004 mg/L	99.3	70.0	130	----
		Sodium, total	7440-23-5	E420	1.88 mg/L	2 mg/L	93.8	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.3 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Tin, total	7440-31-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00374 mg/L	0.004 mg/L	93.6	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, total	7440-66-6	E420	0.404 mg/L	0.4 mg/L	101	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
Total Metals (QCLot: 1239299)										
WP2328799-004	SW-08	Chromium, total	7440-47-3	E420.Cr-L	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
Total Metals (QCLot: 1239300)										
WP2328799-004	SW-08	Phosphorus, total	7723-14-0	E420.P-L	10.1 mg/L	10 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1237377)										
WP2328799-002	SW-04	Mercury, dissolved	7439-97-6	E509	0.000102 mg/L	0.0001 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1237595)										
WP2328077-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.195 mg/L	0.2 mg/L	97.5	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00935 mg/L	0.01 mg/L	93.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.100 mg/L	0.1 mg/L	99.8	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1237595) - continued										
WP2328077-002	Anonymous	Cadmium, dissolved	7440-43-9	E421	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.96 mg/L	2 mg/L	97.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0173 mg/L	0.02 mg/L	86.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0402 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.9 mg/L	10 mg/L	109	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.23 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.68 mg/L	10 mg/L	96.8	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00366 mg/L	0.004 mg/L	91.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.5 mg/L	20 mg/L	97.5	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00410 mg/L	0.004 mg/L	103	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.416 mg/L	0.4 mg/L	104	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0434 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1239815)										
WP2328239-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0356 mg/L	0.04 mg/L	89.0	70.0	130	----
Dissolved Metals (QCLot: 1239816)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1239816) - continued										
WP2328239-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	9.18 mg/L	10 mg/L	91.8	70.0	130	----
Dissolved Metals (QCLot: 1239817)										
WP2328239-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.174 mg/L	0.2 mg/L	87.0	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0184 mg/L	0.02 mg/L	91.9	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0374 mg/L	0.04 mg/L	93.6	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00853 mg/L	0.01 mg/L	85.3	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.094 mg/L	0.1 mg/L	93.9	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00366 mg/L	0.004 mg/L	91.5	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0356 mg/L	0.04 mg/L	89.0	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0176 mg/L	0.02 mg/L	88.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0175 mg/L	0.02 mg/L	87.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.61 mg/L	2 mg/L	80.3	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0178 mg/L	0.02 mg/L	89.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0931 mg/L	0.1 mg/L	93.1	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0344 mg/L	0.04 mg/L	85.9	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.18 mg/L	10 mg/L	91.8	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.44 mg/L	10 mg/L	84.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00228 mg/L	0.004 mg/L	56.9	70.0	130	MS-Ag
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.7 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0396 mg/L	0.04 mg/L	99.1	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00362 mg/L	0.004 mg/L	90.4	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0185 mg/L	0.02 mg/L	92.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1239817) - continued										
WP2328239-001	Anonymous	Titanium, dissolved	7440-32-6	E421	0.0354 mg/L	0.04 mg/L	88.4	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00353 mg/L	0.004 mg/L	88.3	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0914 mg/L	0.1 mg/L	91.4	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.347 mg/L	0.4 mg/L	86.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0396 mg/L	0.04 mg/L	98.9	70.0	130	----

Qualifiers

Qualifier	Description
MS-Ag	MS-Ag: Matrix Spike recovery for silver was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Silver was not detected. Reported result (< LOR) is reliable

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐N/A	☐4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
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Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐Same day [E2] If received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
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	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: EM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-TR	3-Nov-23	14:00	Water	9	X			4.99	0.6	19.8
	SW-04	3-Nov-23	12:50	Water	9	X			6.97	0.3	47.5
	SW-01	3-Nov-23	12:00	Water	9	X			6.63	1.2	31.7
	SW-08	4-Nov-23	14:40	Water	9	X			7.52	0.1	48.2
	SW-08a	4-Nov-23	13:00	Water	9	X			7.48	0.2	102.9
	SW-03	4-Nov-23	12:25	Water	9	X			7.76	0.1	152.8
	SW-TRAVEL BLANK	4-Nov-23	n/a	Water	9	X			n/a	n/a	n/a
	SW-FIELDBLANK01	4-Nov-23	14:40	Water	9	X			n/a	n/a	n/a
	SW-DUP01	4-Nov-23	14:40	Water	9	X			7.52	0.1	48.2
	SW-DUP02	5-Nov-23	11:50	Water	9	X			7.01	0.3	211
	SW-FIELDBLANK02	5-Nov-23	12:15	Water	9	X			n/a	n/a	n/a
	SW-11	5-Nov-23	11:50	Water	9	X			7.01	0.3	211

SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Date: 6 Nov 2023 EM Time:	Received by:	Date: NOV 07 2023	Time: 8:30	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2328799

Telephone : +1 204 255 9720

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Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐N/A	☐4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: EM

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	SW-08	4-Nov-23	14:40	Water	9	X			7.52	0.1	48.2
	SW-08a	4-Nov-23	13:00	Water	9	X			7.48	0.2	102.9
	SW-03	4-Nov-23	12:25	Water	9	X			7.76	0.1	152.8
	SW-TRAVEL BLANK	4-Nov-23	n/a	Water	9	X			n/a	n/a	n/a
	SW-FIELDBLANK01	4-Nov-23	14:40	Water	9	X			n/a	n/a	n/a
	SW-DUP01	4-Nov-23	14:40	Water	9	X			7.52	0.1	48.2
	SW-DUP02	5-Nov-23	11:50	Water	9	X			7.01	0.3	211
	SW-FIELDBLANK02	5-Nov-23	12:15	Water	9	X			n/a	n/a	n/a
	SW-11	5-Nov-23	11:50	Water	9	X			7.01	0.3	211

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Released by: EM	Date: 6 Nov 2023 EM Time:	Received by:	Date: NOV 07 2023	Time: 8:30	Received by:	Time:

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Telephone : +1 204 255 9720

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Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐N/A	☐4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: EM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
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	SW-01	3-Nov-23	12:00	Water	9	X			6.63	1.2	31.7
	SW-08	4-Nov-23	14:40	Water	9	X			7.52	0.1	48.2
	SW-08a	4-Nov-23	13:00	Water	9	X			7.48	0.2	102.9
	SW-03	4-Nov-23	12:25	Water	9	X			7.76	0.1	152.8
	SW-TRAVEL BLANK	4-Nov-23	n/a	Water	9	X			n/a	n/a	n/a
	SW-FIELDBLANK01	4-Nov-23	14:40	Water	9	X			n/a	n/a	n/a
	SW-DUP01	4-Nov-23	14:40	Water	9	X			7.52	0.1	48.2
	SW-DUP02	5-Nov-23	11:50	Water	9	X			7.01	0.3	211
	SW-FIELDBLANK02	5-Nov-23	12:15	Water	9	X			n/a	n/a	n/a
	SW-11	5-Nov-23	11:50	Water	9	X			7.01	0.3	211

SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
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Winnipeg
Work Order Reference
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Telephone : +1 204 255 9720

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CERTIFICATE OF ANALYSIS

Work Order	: **WP2332136**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Dec-2023 09:05
PO	: ----	Date Analysis Commenced	: 11-Dec-2023
C-O-C number	: ----	Issue Date	: 19-Dec-2023 11:00
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.
Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Sample(s) Met-T -006: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-08a	SW-11	SW-04	DUP-01
					Client sampling date / time	07-Dec-2023 14:25	07-Dec-2023 13:55	07-Dec-2023 12:00	07-Dec-2023 11:10	07-Dec-2023 14:00
						WP2332136-001	WP2332136-002	WP2332136-003	WP2332136-004	WP2332136-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.85	8.24	6.66	7.34	8.24
Temperature, field	----	EF001/WP	0.10	°C		0.20	0.20	0.20	0.60	0.20
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.5	2.5	14.1	2.9	2.5
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		49.1	49.1	90.8	49.0	49.7
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		49.1	49.1	90.8	49.0	49.7
Conductivity	----	E100/WP	1.0	µS/cm		103	102	247	102	103
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		52.9	53.7	119	52.2	51.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		53.3	52.3	124	51.6	52.1
pH	----	E108/WP	0.10	pH units		7.54	7.54	7.09	7.45	7.55
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		76.5	82.5	222	79.8	77.2
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		4.5	4.5	18.9	5.1	5.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0300	0.0306	0.199	0.0271	0.0248
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.48	0.44	16.4	0.35	0.43
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0549	0.0537	0.0127	0.0574	0.0531
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0572	0.0555	0.0138	0.0592	0.0554
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0023	0.0018	0.0011	0.0018	0.0023
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0223	0.0242	0.0438	0.0243	0.0231
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.89	0.85	9.22	0.80	0.86
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0018	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0018	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-08a	SW-11	SW-04	DUP-01
					Client sampling date / time	07-Dec-2023 14:25	07-Dec-2023 13:55	07-Dec-2023 12:00	07-Dec-2023 11:10	07-Dec-2023 14:00
						WP2332136-001	WP2332136-002	WP2332136-003	WP2332136-004	WP2332136-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0015	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		16.1	16.4	38.5	19.8	16.7
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.184	0.189	0.412	0.182	0.185
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00011	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00154	0.00150	0.00448	0.00155	0.00151
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0157	0.0157	0.0442	0.0143	0.0155
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	0.000033	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000058	0.0000259	<0.0000050	0.0000064
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		14.5	14.2	31.5	14.0	14.2
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000018	0.000016	0.000022	0.000016	0.000018
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00047	0.00043	0.00097	0.00044	0.00046
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00097	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00015	0.00015	0.00258	0.00015	0.00015
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00087	0.00086	0.00198	0.00082	0.00085
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.389	0.398	2.88	0.385	0.386
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000118	0.000116	0.000339	0.000111	0.000114
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0014	0.0029	0.0013	0.0013
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		4.16	4.10	11.0	4.03	4.05
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0194	0.0185	0.938	0.0182	0.0184
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000060	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000235	0.000223	0.000220	0.000219	0.000229
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00071	0.00070	0.00284	0.00070	0.00070
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	0.042	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.31	1.29	1.81	1.30	1.29
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00228	0.00231	0.00245	0.00234	0.00230

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-08a	SW-11	SW-04	DUP-01
					Client sampling date / time	07-Dec-2023 14:25	07-Dec-2023 13:55	07-Dec-2023 12:00	07-Dec-2023 11:10	07-Dec-2023 14:00
						WP2332136-001	WP2332136-002	WP2332136-003	WP2332136-004	WP2332136-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000101	0.000102	0.000142	0.000102	0.000120
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.30	3.26	8.01	3.20	3.22
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000012	0.000013	<0.000010	<0.000010	0.000014
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.99	1.89	7.82	1.78	1.88
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0309	0.0308	0.0733	0.0308	0.0309
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.51	<0.50	3.48	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00017	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00720	0.00760	0.0127	0.00746	0.00801
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00015	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000186	0.000180	0.000204	0.000161	0.000174
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00100	0.00099	0.00239	0.00097	0.00097
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00021	0.00107	0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0334	0.0339	0.188	0.0348	0.0238
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00013	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00143	0.00143	0.00457	0.00148	0.00140
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0133	0.0131	0.0208	0.0123	0.0129
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	0.000026	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000334	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		14.0	14.3	28.9	13.9	14.0
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00017	0.00020	0.00076	0.00026	0.00018
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00076	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00293	<0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-08a	SW-11	SW-04	DUP-01
					Client sampling date / time	07-Dec-2023 14:25	07-Dec-2023 13:55	07-Dec-2023 12:00	07-Dec-2023 11:10	07-Dec-2023 14:00
						WP2332136-001	WP2332136-002	WP2332136-003	WP2332136-004	WP2332136-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00068	0.00068	0.00120	0.00069	0.00068
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.184	0.182	2.12	0.178	0.161
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000058	0.000062	0.000105	0.000061	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0017	0.0018	0.0030	0.0016	0.0017
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.36	4.38	11.4	4.24	4.10
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0172	0.0170	0.921	0.0158	0.0161
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000229	0.000241	0.000264	0.000240	0.000241
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00054	0.00054	0.00268	0.00054	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.28	1.29	1.75	1.25	1.27
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00201	0.00213	0.00219	0.00199	0.00194
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000125	0.000112	0.000199	0.000088	0.000100
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.93	2.84	8.00	2.84	2.81
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.01	1.98	8.06	1.82	1.94
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0312	0.0314	0.0724	0.0315	0.0312
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	3.51	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00025	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00106	0.00108	0.00831	0.00118	0.00079
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00014	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000153	0.000158	0.000166	0.000156	0.000150
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00163	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0028	0.0011	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00115	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	SW-08a	SW-11	SW-04	DUP-01
					Client sampling date / time	07-Dec-2023 14:25	07-Dec-2023 13:55	07-Dec-2023 12:00	07-Dec-2023 11:10	07-Dec-2023 14:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332136-001	WP2332136-002	WP2332136-003	WP2332136-004	WP2332136-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Laboratory	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	TRAVEL BLANK	----	----	----	----
					Client sampling date / time	07-Dec-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332136-006	--------	--------	--------	--------
						Result	----	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		0.60	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		0.60	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		Not Detected	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		<0.50	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		<0.50	----	----	----	----
pH	----	E108/WP	0.10	pH units		5.30	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		<3.0	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		Not Detected	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		Not Detected	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		Not Detected	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		<0.0020	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	----	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		0.58	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	TRAVEL BLANK	----	----	----	----
					Client sampling date / time	07-Dec-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332136-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		<0.0050	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		<0.10	----	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	TRAVEL BLANK	----	----	----	----
					Client sampling date / time	07-Dec-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332136-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		<0.0050	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	TRAVEL BLANK	----	----	----	----
					Client sampling date / time	07-Dec-2023 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332136-006	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		<0.000050	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Laboratory	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2332136**	Page	: 1 of 27
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Dec-2023 09:05
PO	: ----	Issue Date	: 19-Dec-2023 11:00
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG4-1274466 001	----	Selenium, total	7782-49-2	E420	0.000060 B mg/L	0.00005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-01	E298	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08a	E298	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) TRAVEL BLANK	E298	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DUP-01	E235.Cl-L	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-04	E235.Cl-L	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-08	E235.Cl-L	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-08a	E235.Cl-L	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-11	E235.Cl-L	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
TRAVEL BLANK	E235.Cl-L	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
DUP-01	E235.NO3-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-08	E235.NO3-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-08a	E235.NO3-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
TRAVEL BLANK	E235.NO3-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	4 days	× EHTR-FM

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-04	E235.NO3-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	5 days	× EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-11	E235.NO3-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	5 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DUP-01	E235.NO2-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-08	E235.NO2-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-08a	E235.NO2-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE TRAVEL BLANK	E235.NO2-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-04	E235.NO2-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	5 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-11	E235.NO2-L	07-Dec-2023	12-Dec-2023	3 days	4 days	× EHTR	12-Dec-2023	3 days	5 days	× EHTR-FM
Anions and Nutrients : Sulfate in Water by IC										
HDPE DUP-01	E235.SO4	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-04	E235.SO4	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-08	E235.SO4	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-08a	E235.SO4	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-11	E235.SO4	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE TRAVEL BLANK	E235.SO4	07-Dec-2023	12-Dec-2023	28 days	5 days	✓	12-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-01	E372-U	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	14-Dec-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	14-Dec-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	14-Dec-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08a	E372-U	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	14-Dec-2023	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	14-Dec-2023	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) TRAVEL BLANK	E372-U	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	14-Dec-2023	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-01	E339-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E339-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08a	E339-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E339-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) TRAVEL BLANK	E339-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-01	E333-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08a	E333-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E333-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08a	E336-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E336-L	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	13-Dec-2023	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.Cr-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08a	E421.Cr-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.Cr-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DUP-01	E509	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08a	E509	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) TRAVEL BLANK	E509	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-01	E421	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08a	E421	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-11	E421	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) TRAVEL BLANK	E421	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-01	E421.P-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-04	E421.P-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08a	E421.P-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) TRAVEL BLANK	E421.P-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) DUP-01	EF001	07-Dec-2023	----	----	----		12-Dec-2023	----	5 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	07-Dec-2023	----	----	----		12-Dec-2023	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08	EF001	07-Dec-2023	----	----	----		12-Dec-2023	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08a	EF001	07-Dec-2023	----	----	----		12-Dec-2023	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	07-Dec-2023	----	----	----		12-Dec-2023	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-01	E358-L	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08	E358-L	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08a	E358-L	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-11	E358-L	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
TRAVEL BLANK	E358-L	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-01	E283	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-04	E283	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-08	E283	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-08a	E283	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-11	E283	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
TRAVEL BLANK	E283	07-Dec-2023	13-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
DUP-01	E290	07-Dec-2023	11-Dec-2023	14 days	4 days	✓	11-Dec-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-04	E290	07-Dec-2023	11-Dec-2023	14 days	4 days	✓	11-Dec-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08	E290	07-Dec-2023	11-Dec-2023	14 days	4 days	✓	11-Dec-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08a	E290	07-Dec-2023	11-Dec-2023	14 days	4 days	✓	11-Dec-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-11	E290	07-Dec-2023	11-Dec-2023	14 days	4 days	✓	11-Dec-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE TRAVEL BLANK	E290	07-Dec-2023	11-Dec-2023	14 days	4 days	✓	11-Dec-2023	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE DUP-01	E100	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-04	E100	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08	E100	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08a	E100	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-11	E100	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE TRAVEL BLANK	E100	07-Dec-2023	11-Dec-2023	28 days	4 days	✓	11-Dec-2023	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE TRAVEL BLANK	E108	07-Dec-2023	11-Dec-2023	0.25 hrs	88 hrs	× EHTR-FM	11-Dec-2023	0.25 hrs	88 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DUP-01	E108	07-Dec-2023	11-Dec-2023	0.25 hrs	89 hrs	× EHTR-FM	11-Dec-2023	0.25 hrs	89 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08	E108	07-Dec-2023	11-Dec-2023	0.25 hrs	89 hrs	× EHTR-FM	11-Dec-2023	0.25 hrs	89 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08a	E108	07-Dec-2023	11-Dec-2023	0.25 hrs	89 hrs	× EHTR-FM	11-Dec-2023	0.25 hrs	89 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-11	E108	07-Dec-2023	11-Dec-2023	0.25 hrs	91 hrs	× EHTR-FM	11-Dec-2023	0.25 hrs	91 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-04	E108	07-Dec-2023	11-Dec-2023	0.25 hrs	92 hrs	× EHTR-FM	11-Dec-2023	0.25 hrs	92 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DUP-01	E162-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-04	E162-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08	E162-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08a	E162-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-11	E162-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE TRAVEL BLANK	E162-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-01	E160-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08a	E160-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] TRAVEL BLANK	E160-L	07-Dec-2023	----	----	----		12-Dec-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08a	E420.Cr-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.Cr-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08a	E508	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) TRAVEL BLANK	E508	07-Dec-2023	13-Dec-2023	28 days	6 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-01	E420	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08a	E420	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
TRAVEL BLANK	E420	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
DUP-01	E420.P-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-04	E420.P-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-08	E420.P-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-08a	E420.P-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-11	E420.P-L	07-Dec-2023	12-Dec-2023	180 days	5 days	✓	12-Dec-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
TRAVEL BLANK	E420.P-L	07-Dec-2023	13-Dec-2023	180 days	6 days	✓	13-Dec-2023	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1275128	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1272813	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1272053	1	10	10.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1274542	0	14	0.0	5.0	✗
Conductivity in Water	E100	1272812	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1274487	0	6	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1274861	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1274486	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1275079	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1274488	0	6	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1275074	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1274540	0	14	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1274541	0	14	0.0	5.0	✗
pH by Meter	E108	1272814	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1274538	1	18	5.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1272212	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1272999	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1275075	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1274860	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1272998	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1275457	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1273000	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1274595	1	14	7.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1275073	1	8	12.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1275128	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1272813	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1272053	1	10	10.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1274542	1	14	7.1	5.0	✓
Conductivity in Water	E100	1272812	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1274487	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1274861	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1274486	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1275079	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1274488	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1275074	1	8	12.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1274540	1	14	7.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1274541	1	14	7.1	5.0	✓
pH by Meter	E108	1272814	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1274538	1	18	5.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1272212	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1272999	2	6	33.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1275075	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1274860	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1272998	2	14	14.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1275457	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1273000	2	6	33.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1274595	1	14	7.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1275073	1	8	12.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1275128	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1272813	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1272053	1	10	10.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1274542	1	14	7.1	5.0	✓
Conductivity in Water	E100	1272812	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1274487	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1274861	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1274486	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1275079	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1274488	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1275074	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1274540	1	14	7.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1274541	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1274538	1	18	5.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1272212	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1272999	2	6	33.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1275075	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1274860	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1272998	2	14	14.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1275457	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1273000	2	6	33.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1274595	1	14	7.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1275073	1	8	12.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1272053	1	10	10.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1274542	0	14	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1274487	0	6	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1274861	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1274486	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1275079	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1274488	0	6	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1275074	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1274540	0	14	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1274541	0	14	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1274538	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1272999	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1275075	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1274860	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1272998	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1275457	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1273000	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1275073	1	8	12.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2332136**	Page	: 1 of 20
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Dec-2023 09:05
PO	: ----	Date Analysis Commenced	: 11-Dec-2023
C-O-C number	: ----	Issue Date	: 19-Dec-2023 11:00
Sampler	: ---- ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1272212)											
WP2332136-001	SW-08	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	76.5	75.5	1.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1272812)											
WP2332111-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	120	119	0.418%	10%	----
Physical Tests (QC Lot: 1272813)											
WP2332111-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	26.5	26.2	1.14%	20%	----
Physical Tests (QC Lot: 1272814)											
WP2332111-001	Anonymous	pH	----	E108	0.10	pH units	6.80	6.81	0.147%	4%	----
Physical Tests (QC Lot: 1274595)											
WP2332302-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	2.5	2.7	0.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1275128)											
WP2332056-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	6.6	3.7	2.9	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1272053)											
WP2332136-006	TRAVEL BLANK	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1274538)											
WP2332133-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	3.03	3.08	1.40%	20%	----
Anions and Nutrients (QC Lot: 1275457)											
WP2332136-001	SW-08	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0223	0.0232	3.82%	20%	----
Cyanides (QC Lot: 1275073)											
WP2332054-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 1275074)											
WP2332054-001	Anonymous	Cyanide, free	----	E339-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 1275075)											
WP2332054-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1275079)											
WP2332136-001	SW-08	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	16.1	16.3	1.40%	20%	----
Total Metals (QC Lot: 1274466)											
WP2332136-006	TRAVEL BLANK	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
Total Metals (QC Lot: 1274467)											
WP2332136-006	TRAVEL BLANK	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1274468)											
WP2332136-006	TRAVEL BLANK	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1274468) - continued											
WP2332136-006	TRAVEL BLANK	Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1274860)											
WP2332133-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1274486)											
WP2332060-013	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0196	0.0202	2.83%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00026	0.00025	0.00001	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00154	0.00151	1.66%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00902	0.00896	0.632%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.165	0.167	1.40%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000153	0.0000195	0.0000041	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	35.7	35.9	0.507%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000025	0.000027	0.000001	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00011	0.00011	0.000001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.706	0.706	0.0776%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.012	0.010	0.001	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.227	0.230	1.00%	20%	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0793	0.0793	0.0583%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	27.1	27.0	0.435%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00062	0.00066	0.00004	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00492	0.00489	0.592%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00466	0.00460	0.00006	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	15.2	15.2	0.429%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00330	0.00313	5.32%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000316	0.000340	0.000024	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.58	5.57	0.258%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1274486) - continued											
WP2332060-013	Anonymous	Sodium, dissolved	7440-23-5	E421	0.050	mg/L	163	164	0.770%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.157	0.157	0.0718%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	128	127	0.680%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000010	0.000011	0.0000007	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00052	0.00052	0.000004	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000142	0.000151	6.34%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00131	0.00132	0.000009	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0400	0.0389	2.82%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1274861)											
WP2332136-001	SW-08	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1272212)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1272812)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1272813)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1274595)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1275128)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1272053)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1274538)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1274540)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1274541)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1274542)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1275457)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1275073)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1275074)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1275075)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1275079)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1272998)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1272998) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1272998) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1272999)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1273000)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1274466)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1274467)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1274468)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	# 0.000060	B

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1274468) - continued						
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1274860)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1274486)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1274486) - continued						
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1274487)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1274488)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1274861)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1272212)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.2	85.0	115	----
Physical Tests (QCLot: 1272812)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1272813)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1272814)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1274595)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.7	85.0	115	----
Physical Tests (QCLot: 1275128)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	110	85.0	115	----
Anions and Nutrients (QCLot: 1272053)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.0	85.0	115	----
Anions and Nutrients (QCLot: 1274538)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1274540)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1274541)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1274542)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1275457)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.2	80.0	120	----
Cyanides (QCLot: 1275073)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	99.2	80.0	120	----
Cyanides (QCLot: 1275074)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1275075)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	92.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1275079)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.7	80.0	120	----
Total Metals (QCLot: 1272998)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	105	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	98.1	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	90.0	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.1	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	100.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	88.9	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.2	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.7	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	101	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	111	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.5	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	98.8	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	99.0	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.9	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1272998) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	105	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.2	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	89.6	80.0	120	----
Total Metals (QCLot: 1272999)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Total Metals (QCLot: 1273000)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----
Total Metals (QCLot: 1274466)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Total Metals (QCLot: 1274467)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	109	80.0	120	----
Total Metals (QCLot: 1274468)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	109	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	108	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.4	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	105	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	108	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	103	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	113	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	106	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	109	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1274468) - continued									
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	107	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	95.8	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.3	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.0	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Total Metals (QCLot: 1274860)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	98.4	80.0	120	----
Dissolved Metals (QCLot: 1274486)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	106	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	98.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	109	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	98.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1274486) - continued									
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	94.6	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.6	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	94.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.7	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1274487)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.6	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1272053)										
WP2332136-006	TRAVEL BLANK	Ammonia, total (as N)	7664-41-7	E298	0.106 mg/L	0.1 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1274538)										
WP2332133-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.9 mg/L	100 mg/L	99.9	75.0	125	----
Anions and Nutrients (QCLot: 1275457)										
WP2332136-002	SW-08a	Phosphorus, total	7723-14-0	E372-U	0.243 mg/L	0.25 mg/L	97.3	70.0	130	----
Cyanides (QCLot: 1275073)										
WP2332054-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	1.19 mg/L	1.25 mg/L	95.3	75.0	125	----
Cyanides (QCLot: 1275074)										
WP2332054-001	Anonymous	Cyanide, free	----	E339-L	1.25 mg/L	1.25 mg/L	100	75.0	125	----
Cyanides (QCLot: 1275075)										
WP2332054-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	2.34 mg/L	2.5 mg/L	93.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1275079)										
WP2332136-002	SW-08a	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1274466)										
WP2332136-006	TRAVEL BLANK	Chromium, total	7440-47-3	E420.Cr-L	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----
Total Metals (QCLot: 1274467)										
WP2332136-006	TRAVEL BLANK	Phosphorus, total	7723-14-0	E420.P-L	9.25 mg/L	10 mg/L	92.5	70.0	130	----
Total Metals (QCLot: 1274468)										
WP2332136-006	TRAVEL BLANK	Aluminum, total	7429-90-5	E420	0.189 mg/L	0.2 mg/L	94.4	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0185 mg/L	0.02 mg/L	92.5	70.0	130	----
		Barium, total	7440-39-3	E420	0.0191 mg/L	0.02 mg/L	95.5	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Boron, total	7440-42-8	E420	0.098 mg/L	0.1 mg/L	97.7	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00375 mg/L	0.004 mg/L	93.8	70.0	130	----
		Calcium, total	7440-70-2	E420	3.92 mg/L	4 mg/L	98.0	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00994 mg/L	0.01 mg/L	99.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1274468) - continued										
WP2332136-006	TRAVEL BLANK	Cobalt, total	7440-48-4	E420	0.0191 mg/L	0.02 mg/L	95.7	70.0	130	----
		Copper, total	7440-50-8	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Iron, total	7439-89-6	E420	1.90 mg/L	2 mg/L	94.9	70.0	130	----
		Lead, total	7439-92-1	E420	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0986 mg/L	0.1 mg/L	98.6	70.0	130	----
		Magnesium, total	7439-95-4	E420	0.949 mg/L	1 mg/L	94.9	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.25 mg/L	10 mg/L	92.5	70.0	130	----
		Potassium, total	7440-09-7	E420	3.95 mg/L	4 mg/L	98.8	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0422 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, total	7440-21-3	E420	9.31 mg/L	10 mg/L	93.1	70.0	130	----
		Silver, total	7440-22-4	E420	0.00374 mg/L	0.004 mg/L	93.4	70.0	130	----
		Sodium, total	7440-23-5	E420	1.92 mg/L	2 mg/L	95.8	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		Sulfur, total	7704-34-9	E420	18.6 mg/L	20 mg/L	93.0	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00378 mg/L	0.004 mg/L	94.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Tin, total	7440-31-5	E420	0.0187 mg/L	0.02 mg/L	93.6	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0368 mg/L	0.04 mg/L	92.0	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0187 mg/L	0.02 mg/L	93.7	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00387 mg/L	0.004 mg/L	96.7	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0947 mg/L	0.1 mg/L	94.7	70.0	130	----
		Zinc, total	7440-66-6	E420	0.372 mg/L	0.4 mg/L	93.1	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0363 mg/L	0.04 mg/L	90.8	70.0	130	----
Total Metals (QCLot: 1274860)										
WP2332133-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000995 mg/L	0.0001 mg/L	99.5	70.0	130	----
Dissolved Metals (QCLot: 1274486)										
WP2332060-013	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.187 mg/L	0.2 mg/L	93.7	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0185 mg/L	0.02 mg/L	92.5	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0180 mg/L	0.02 mg/L	90.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1274486) - continued										
WP2332060-013	Anonymous	Beryllium, dissolved	7440-41-7	E421	0.0362 mg/L	0.04 mg/L	90.5	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00845 mg/L	0.01 mg/L	84.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00350 mg/L	0.004 mg/L	87.6	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00944 mg/L	0.01 mg/L	94.4	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0355 mg/L	0.04 mg/L	88.8	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0175 mg/L	0.02 mg/L	87.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.75 mg/L	2 mg/L	87.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0894 mg/L	0.1 mg/L	89.4	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0180 mg/L	0.02 mg/L	90.1	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0184 mg/L	0.02 mg/L	91.8	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0340 mg/L	0.04 mg/L	85.0	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.78 mg/L	10 mg/L	97.8	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0184 mg/L	0.02 mg/L	92.2	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.13 mg/L	10 mg/L	91.3	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00343 mg/L	0.004 mg/L	85.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0376 mg/L	0.04 mg/L	93.9	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00339 mg/L	0.004 mg/L	84.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0180 mg/L	0.02 mg/L	89.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0179 mg/L	0.02 mg/L	89.4	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0373 mg/L	0.04 mg/L	93.3	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0178 mg/L	0.02 mg/L	88.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00353 mg/L	0.004 mg/L	88.3	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0932 mg/L	0.1 mg/L	93.2	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.343 mg/L	0.4 mg/L	85.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0363 mg/L	0.04 mg/L	90.7	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1274861)										
WP2332136-002	SW-08a	Mercury, dissolved	7439-97-6	E509	0.0000994 mg/L	0.0001 mg/L	99.4	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] If received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	TRAVEL BLANK		Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-08	7-Dec-23	14:25	Water	9	X			7.85	0.2	61.2
	SW-08a	7-Dec-23	13:55	Water	9	X			8.24	0.2	61.8
	SW-11	7-Dec-23	12:00	Water	9	X			6.66	0.2	147.2
	SW-04	7-Dec-23	11:10	Water	9	X			7.34	0.6	60.9
	DUP-01	7-Dec-23	14:00	Water	9	X			8.24	0.2	61.8
	TRAVEL BLANK	7-Dec-23	/	Water	9		X		/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: 8 Oct 2023	Time:	Received by:	Date: DEC 11 2023	Time: 9:05	Received by:	Time:

11.6°C

Environmental Division
Winnipeg
Work Order Reference
WP2332136

Telephone : +1 204 255 9720

Sample Intake						
Client:	Kinross					
Cheque Enclosed with CoC		Yes		No		
Priority/Emergency Required (circle one)		Yes		No		
Time Sensitive Hold Time (circle one)		Yes		No		
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White	6x500 / 16x125	Yellow/Black	12x40mL			
Purple/White	11x100	Light blue/White				
Warm red/White	2x125	Orange/Black				
Dark Green/White	6x60mL	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed		✓
SUBCO/Chromatograph added to client contacts for required analysis	✓	✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2332240**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Dec-2023 09:02
PO	: ----	Date Analysis Commenced	: 12-Dec-2023
C-O-C number	: ----	Issue Date	: 19-Dec-2023 15:57
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	CR-FDP	SW-GL	SW-01	SW-TR
					Client sampling date / time	08-Dec-2023 09:50	08-Dec-2023 10:55	08-Dec-2023 12:40	09-Dec-2023 11:15	09-Dec-2023 12:25
						WP2332240-001	WP2332240-002	WP2332240-003	WP2332240-004	WP2332240-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		8.33	7.81	7.89	6.25	5.61
Temperature, field	----	EF001/WP	0.10	°C		1.70	1.00	1.30	<0.10	0.40
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.1	2.1	2.2	33.8	32.2
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		30.6	30.7	33.6	35.2	0.80
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		30.6	30.7	33.6	35.2	0.80
Conductivity	----	E100/WP	1.0	µS/cm		85.6	86.6	74.5	95.8	33.9
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		36.6	36.1	34.3	55.8	14.7
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		38.2	39.7	37.2	60.6	15.5
pH	----	E108/WP	0.10	pH units		7.50	7.49	7.44	6.69	4.88
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		55.2	63.8	57.8	201	114
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		2.4	3.5	3.5	3.8	14.7
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0067	0.0144	0.0182	0.0693	0.0822
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.31	2.46	0.84	0.39	0.31
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0354	0.0385	0.0244	0.0066	Not Detected
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0354	0.0385	0.0244	0.0125	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		Not Detected	0.00066	Not Detected	0.0059	Not Detected
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0190	0.0202	0.0384	0.0429	0.0429
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		5.26	5.21	0.60	1.93	0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0023	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0026	0.0011

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	CR-FDP	SW-GL	SW-01	SW-TR
					Client sampling date / time	08-Dec-2023 09:50	08-Dec-2023 10:55	08-Dec-2023 12:40	09-Dec-2023 11:15	09-Dec-2023 12:25
						WP2332240-001	WP2332240-002	WP2332240-003	WP2332240-004	WP2332240-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0019	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		10.9	12.6	14.7	78.2	67.2
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0663	0.105	0.0242	0.666	0.840
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00036	0.00036	0.00010	0.00028	0.00022
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00890	0.00868	0.00224	0.0121	0.00925
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00801	0.00944	0.00836	0.0234	0.00726
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000030	0.000021
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.011	0.011	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000172	0.0000311
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.8	11.2	10.6	16.9	4.04
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000010	0.000011	<0.000010	<0.000010	0.000048
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00022	0.00060	0.00022	0.00143	0.00124
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00060	<0.00050	0.00143	0.00124
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00256	0.00066
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00139	0.00149	<0.00050	0.00105	0.00086
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.095	0.148	0.239	4.22	2.03
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000291	0.000545
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0021	0.0021	0.0018	0.0028	0.0022
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.72	2.84	2.60	4.46	1.32
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00490	0.00778	0.0141	0.520	0.0265
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000054	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000171	0.000192	0.000143	0.000132	0.000120
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00133	0.00142	<0.00050	0.00171	0.00138
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	0.041	0.033
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.02	1.03	0.761	0.772	0.169
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00172	0.00186	0.00201	0.00237	0.00091

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	CR-FDP	SW-GL	SW-01	SW-TR
					Client sampling date / time	08-Dec-2023 09:50	08-Dec-2023 10:55	08-Dec-2023 12:40	09-Dec-2023 11:15	09-Dec-2023 12:25
						WP2332240-001	WP2332240-002	WP2332240-003	WP2332240-004	WP2332240-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000107	0.000129	0.000087	0.000250	0.000192
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.89	2.08	1.41	10.4	1.09
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.41	2.51	1.40	2.84	2.25
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0306	0.0316	0.0251	0.0466	0.0173
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.06	2.08	<0.50	1.36	0.57
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000015	0.000013
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00022	0.00017
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00314	0.00486	0.00060	0.0102	0.0144
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000090	0.000093	0.000046	0.000147	0.000112
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00063	0.00068	<0.00050	0.00184	0.00125
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0093	<0.0030	0.0071	0.0102
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00040	<0.00020	0.00064	0.00040
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0081	0.0147	0.0149	0.611	0.710
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00037	0.00037	<0.00010	0.00026	0.00022
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00802	0.00780	0.00210	0.0120	0.00897
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00741	0.00761	0.00773	0.0181	0.00690
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000036	0.000033
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000216	0.0000364
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.3	10.2	9.75	15.6	3.93
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000032
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00014	<0.00010	0.00121	0.00103
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00121	0.00103
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00234	0.00057

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	CR-FDP	SW-GL	SW-01	SW-TR
					Client sampling date / time	08-Dec-2023 09:50	08-Dec-2023 10:55	08-Dec-2023 12:40	09-Dec-2023 11:15	09-Dec-2023 12:25
						WP2332240-001	WP2332240-002	WP2332240-003	WP2332240-004	WP2332240-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00121	0.00138	0.00023	0.00089	0.00109
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.030	0.043	0.179	3.85	1.81
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000255	0.000497
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0019	0.0019	0.0016	0.0026	0.0018
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.64	2.59	2.42	4.09	1.18
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00088	0.00266	0.0121	0.495	0.0242
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000189	0.000222	0.000130	0.000112	0.000083
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00130	0.00120	<0.00050	0.00153	0.00130
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.986	0.960	0.724	0.869	0.176
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00158	0.00149	0.00184	0.00219	0.00080
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000106	0.000097	0.000076	0.000278	0.000209
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.67	1.70	1.24	9.77	0.873
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.35	2.33	1.34	2.66	1.49
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0298	0.0294	0.0239	0.0439	0.0168
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.08	2.01	<0.50	1.43	0.55
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000014	0.000014
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00023	0.00017
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	0.00042	0.00034	0.00852	0.0101
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000077	0.000084	0.000038	0.000139	0.000090
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00150	0.00090
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0011	0.0025	0.0023	0.0069	0.0138
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00084	0.00052
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-REF	CR-FDP	SW-GL	SW-01	SW-TR
					Client sampling date / time	08-Dec-2023 09:50	08-Dec-2023 10:55	08-Dec-2023 12:40	09-Dec-2023 11:15	09-Dec-2023 12:25
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332240-001	WP2332240-002	WP2332240-003	WP2332240-004	WP2332240-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-03	BLANK-01	----	----	----
				Client sampling date / time	09-Dec-2023 14:30	09-Dec-2023 10:10	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2332240-006	WP2332240-007	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.72	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	0.80	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.1	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	131	0.60	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	Not Detected	Not Detected	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	Not Detected	Not Detected	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	Not Detected	Not Detected	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	131	0.60	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	245	Not Detected	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	117	<0.50	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	129	<0.50	----	----	----
pH	----	E108/WP	0.10	pH units	8.14	5.26	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	141	<3.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	3.0	<1.0	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0169	<0.0050	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.85	Not Detected	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.150	Not Detected	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.151	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0014	Not Detected	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0167	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	3.52	<0.30	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	BLANK-01	----	----	----
					Client sampling date / time	09-Dec-2023 14:30	09-Dec-2023 10:10	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332240-006	WP2332240-007	--------	--------	--------
						Result	Result	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		4.51	<0.50	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0806	<0.0030	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00100	<0.00010	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0156	<0.00010	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		38.0	<0.050	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00028	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.155	<0.010	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0065	<0.0010	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		8.28	<0.0050	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0272	<0.00010	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000720	<0.000050	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		2.08	<0.050	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00079	<0.00020	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000125	<0.000050	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		7.18	<0.10	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	BLANK-01	----	----	----
					Client sampling date / time	09-Dec-2023 14:30	09-Dec-2023 10:10	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332240-006	WP2332240-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.93	<0.050	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0526	<0.00020	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.52	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00393	<0.00030	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.00167	<0.000010	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00089	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0066	<0.0010	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00088	<0.00010	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0142	<0.00010	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.011	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		34.6	<0.050	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00012	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00030	<0.00020	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.037	<0.010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	BLANK-01	----	----	----
					Client sampling date / time	09-Dec-2023 14:30	09-Dec-2023 10:10	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2332240-006	WP2332240-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0059	<0.0010	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		7.39	<0.0050	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0182	<0.00010	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000736	<0.000050	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.85	<0.050	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00056	<0.00020	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000136	<0.000050	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.57	<0.050	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.57	<0.050	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0510	<0.00020	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.67	<0.50	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00031	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.00155	<0.000010	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2332240**	Page	: 1 of 29
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Dec-2023 09:02
PO	: ----	Issue Date	: 19-Dec-2023 15:57
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK-01	E298	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
BLANK-01	E235.Cl-L	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-01	E235.Cl-L	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-03	E235.Cl-L	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-TR	E235.Cl-L	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
CR-FDP	E235.Cl-L	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
CR-REF	E235.Cl-L	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-GL	E235.Cl-L	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
BLANK-01	E235.NO3-L	09-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-01	E235.NO3-L	09-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-03	E235.NO3-L	09-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO3-L	09-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
CR-FDP	E235.NO3-L	08-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
CR-REF	E235.NO3-L	08-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-GL	E235.NO3-L	08-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
BLANK-01	E235.NO2-L	09-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-01	E235.NO2-L	09-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-03	E235.NO2-L	09-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO2-L	09-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
CR-FDP	E235.NO2-L	08-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
CR-REF	E235.NO2-L	08-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL	E235.NO2-L	08-Dec-2023	12-Dec-2023	3 days	3 days	✓	12-Dec-2023	3 days	4 days	× EHTR-FM
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
BLANK-01	E235.SO4	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-01	E235.SO4	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-03	E235.SO4	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-TR	E235.SO4	09-Dec-2023	12-Dec-2023	28 days	3 days	✓	12-Dec-2023	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
CR-FDP	E235.SO4	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
CR-REF	E235.SO4	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-GL	E235.SO4	08-Dec-2023	12-Dec-2023	28 days	4 days	✓	12-Dec-2023	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
BLANK-01	E372-U	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	14-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-01	E372-U	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	14-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-03	E372-U	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	14-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TR	E372-U	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	14-Dec-2023	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-FDP	E372-U	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	14-Dec-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-REF	E372-U	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	14-Dec-2023	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL	E372-U	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	14-Dec-2023	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E339-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E333-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TR	E333-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E333-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E333-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E333-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK-01	E336-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E336-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-03	E336-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TR	E336-L	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E336-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-01	E421.Cr-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK-01	E509	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-01	E509	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-03	E509	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-TR	E509	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-FDP	E509	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-REF	E509	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BLANK-01	E421	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-01	E421	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK-01	E421.P-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.P-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.P-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.P-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
BLANK-01	EF001	09-Dec-2023	----	----	----		19-Dec-2023	----	10 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	08-Dec-2023	----	----	----		18-Dec-2023	----	10 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	08-Dec-2023	----	----	----		18-Dec-2023	----	10 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	08-Dec-2023	----	----	----		18-Dec-2023	----	10 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	09-Dec-2023	----	----	----		18-Dec-2023	----	9 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-03	EF001	09-Dec-2023	----	----	----		18-Dec-2023	----	9 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	09-Dec-2023	----	----	----		18-Dec-2023	----	9 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK-01	E358-L	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-03	E358-L	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK-01	E283	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-03	E283	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	09-Dec-2023	14-Dec-2023	14 days	5 days	✓	14-Dec-2023	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	08-Dec-2023	14-Dec-2023	14 days	6 days	✓	14-Dec-2023	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE BLANK-01	E290	09-Dec-2023	13-Dec-2023	14 days	4 days	✓	13-Dec-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-01	E290	09-Dec-2023	13-Dec-2023	14 days	4 days	✓	13-Dec-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-03	E290	09-Dec-2023	13-Dec-2023	14 days	4 days	✓	13-Dec-2023	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TR	E290	09-Dec-2023	13-Dec-2023	14 days	4 days	✓	13-Dec-2023	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE CR-FDP	E290	08-Dec-2023	13-Dec-2023	14 days	5 days	✓	13-Dec-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE CR-REF	E290	08-Dec-2023	13-Dec-2023	14 days	5 days	✓	13-Dec-2023	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL	E290	08-Dec-2023	13-Dec-2023	14 days	5 days	✓	13-Dec-2023	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE BLANK-01	E100	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-01	E100	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-03	E100	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-TR	E100	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-FDP	E100	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE CR-REF	E100	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL	E100	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE SW-GL	E108	08-Dec-2023	13-Dec-2023	0.25 hrs	116 hrs	× EHTR-FM	13-Dec-2023	0.25 hrs	116 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-FDP	E108	08-Dec-2023	13-Dec-2023	0.25 hrs	118 hrs	× EHTR-FM	13-Dec-2023	0.25 hrs	118 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-REF	E108	08-Dec-2023	13-Dec-2023	0.25 hrs	119 hrs	× EHTR-FM	13-Dec-2023	0.25 hrs	119 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-03	E108	09-Dec-2023	13-Dec-2023	0.25 hrs	90 hrs	× EHTR-FM	13-Dec-2023	0.25 hrs	90 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-TR	E108	09-Dec-2023	13-Dec-2023	0.25 hrs	92 hrs	× EHTR-FM	13-Dec-2023	0.25 hrs	92 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-01	E108	09-Dec-2023	13-Dec-2023	0.25 hrs	94 hrs	× EHTR-FM	13-Dec-2023	0.25 hrs	94 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE BLANK-01	E108	09-Dec-2023	13-Dec-2023	0.25 hrs	95 hrs	× EHTR-FM	13-Dec-2023	0.25 hrs	95 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE BLANK-01	E162-L	09-Dec-2023	----	----	----		13-Dec-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-01	E162-L	09-Dec-2023	----	----	----		13-Dec-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-03	E162-L	09-Dec-2023	----	----	----		13-Dec-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TR	E162-L	09-Dec-2023	----	----	----		13-Dec-2023	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-FDP	E162-L	08-Dec-2023	----	----	----		13-Dec-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-REF	E162-L	08-Dec-2023	----	----	----		13-Dec-2023	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL	E162-L	08-Dec-2023	----	----	----		13-Dec-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK-01	E160-L	09-Dec-2023	----	----	----		13-Dec-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	09-Dec-2023	----	----	----		13-Dec-2023	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	09-Dec-2023	----	----	----		13-Dec-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	09-Dec-2023	----	----	----		13-Dec-2023	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	08-Dec-2023	----	----	----		13-Dec-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	08-Dec-2023	----	----	----		13-Dec-2023	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	08-Dec-2023	----	----	----		13-Dec-2023	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-01	E420.Cr-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-01	E508	09-Dec-2023	19-Dec-2023	28 days	10 days	✓	19-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	09-Dec-2023	19-Dec-2023	28 days	10 days	✓	19-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	09-Dec-2023	13-Dec-2023	28 days	4 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-GL	E508	08-Dec-2023	13-Dec-2023	28 days	5 days	✓	13-Dec-2023	28 days	0 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BLANK-01	E420	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-01	E420	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-03	E420	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-TR	E420	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
CR-FDP	E420	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
CR-REF	E420	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-GL	E420	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
BLANK-01	E420.P-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	09-Dec-2023	14-Dec-2023	180 days	5 days	✓	14-Dec-2023	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	08-Dec-2023	14-Dec-2023	180 days	6 days	✓	14-Dec-2023	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1277031	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1274630	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1273499	2	30	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1274542	1	24	4.1	5.0	×
Conductivity in Water	E100	1274629	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1276381	0	7	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1274861	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1276380	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1275079	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1276382	0	7	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1276785	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1274540	1	24	4.1	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	1274541	1	24	4.1	5.0	×
pH by Meter	E108	1274631	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1274538	2	30	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1273865	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1276353	0	7	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1276790	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1274860	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1276348	0	17	0.0	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1275457	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1276351	0	14	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1273860	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1276789	1	7	14.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1277031	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1274630	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1273499	2	30	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1274542	2	24	8.3	5.0	✓
Conductivity in Water	E100	1274629	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1276381	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1274861	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1276380	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1275079	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1276382	1	7	14.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1276785	1	9	11.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1274540	2	24	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1274541	2	24	8.3	5.0	✓
pH by Meter	E108	1274631	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1274538	2	30	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1273865	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1276353	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1276790	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1274860	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1276348	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1275457	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1276351	1	14	7.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1273860	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1276789	1	7	14.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1277031	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1274630	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1273499	2	30	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1274542	2	24	8.3	5.0	✓
Conductivity in Water	E100	1274629	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1276381	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1274861	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1276380	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1275079	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1276382	1	7	14.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1276785	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1274540	2	24	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1274541	2	24	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1274538	2	30	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1273865	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1276353	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1276790	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1274860	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1276348	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1275457	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1276351	1	14	7.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1273860	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1276789	1	7	14.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1273499	2	30	6.6	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1274542	1	24	4.1	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1276381	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1274861	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1276380	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1275079	1	15	6.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1276382	0	7	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1276785	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1274540	1	24	4.1	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1274541	1	24	4.1	5.0	✗
Sulfate in Water by IC	E235.SO4	1274538	2	30	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1276353	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1276790	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1274860	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1276348	0	17	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1275457	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1276351	0	14	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1276789	1	7	14.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2332240**	Page	: 1 of 16
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
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Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Dec-2023 09:02
PO	: ----	Date Analysis Commenced	: 12-Dec-2023
C-O-C number	: ----	Issue Date	: 19-Dec-2023 16:22
Sampler	: ---- ----		
Site	: ----		
Quote number	: Monthy and Quarterly samples_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1273860)											
WP2332240-001	CR-REF	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	2.4	2.4	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1273865)											
WP2332240-001	CR-REF	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	55.2	51.5	3.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1274629)											
WP2332223-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	549	553	0.726%	10%	----
Physical Tests (QC Lot: 1274630)											
WP2332223-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	295	292	0.818%	20%	----
Physical Tests (QC Lot: 1274631)											
WP2332223-001	Anonymous	pH	----	E108	0.10	pH units	8.04	8.09	0.620%	4%	----
Physical Tests (QC Lot: 1277031)											
WP2332240-001	CR-REF	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.1	2.0	0.1	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1273499)											
WP2332223-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0106	0.0099	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1274538)											
WP2332133-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	3.03	3.08	1.40%	20%	----
Anions and Nutrients (QC Lot: 1274543)											
WP2332240-002	CR-FDP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	5.21	5.21	0.0500%	20%	----
Anions and Nutrients (QC Lot: 1274544)											
WP2332240-002	CR-FDP	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0385	0.0380	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1274545)											
WP2332240-002	CR-FDP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1274546)											
WP2332240-002	CR-FDP	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.46	2.50	1.41%	20%	----
Anions and Nutrients (QC Lot: 1275457)											
WP2332136-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0223	0.0232	3.82%	20%	----
Anions and Nutrients (QC Lot: 1275482)											
WP2332339-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0115	0.0110	0.0005	Diff <2x LOR	----
Cyanides (QC Lot: 1276785)											
CG2317596-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1276789)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1276789) - continued											
WP2332240-001	CR-REF	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1276790)											
WP2332240-001	CR-REF	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1275079)											
WP2332136-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	16.1	16.3	1.40%	20%	----
Total Metals (QC Lot: 1274860)											
WP2332133-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1282393)											
WP2332240-006	SW-03	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1274861)											
WP2332136-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1276380)											
WP2332223-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	2.5 µg/L	0.0025	0.000003	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00117	0.00114	2.40%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0851	0.0855	0.467%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.044	0.045	0.001	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	77.0	76.9	0.111%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00098	0.00099	0.000009	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.027	0.027	0.0003	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0100	0.0103	3.23%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	24.9	25.2	1.38%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00598	0.00602	0.709%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000729	0.000755	3.56%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00110	0.00106	0.00004	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1276380) - continued											
WP2332223-001	Anonymous	Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.96	3.05	2.77%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00118	0.00124	0.00006	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000135	0.000101	0.000034	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	9.01	8.95	0.588%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	8.96	9.04	0.917%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.154	0.158	2.83%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	3.55	3.46	0.09	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00066	0.00055	0.00010	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000568	0.000558	1.71%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00101	0.00104	0.00003	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	0.00030	0.000004	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1273860)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1273865)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1274629)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1274630)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1277031)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1273499)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1274538)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1274540)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1274541)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1274542)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1274543)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1274544)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1274545)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1274546)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1275457)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1275482)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1276785)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1276785) - continued						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1276789)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1276790)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1275079)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1274860)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1276348)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1276348) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1276351)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1276353)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1282393)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1274861)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1276380)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1276380) - continued						
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1276381)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1276382)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1273860)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	96.3	85.0	115	----
Physical Tests (QCLot: 1273865)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.0	85.0	115	----
Physical Tests (QCLot: 1274629)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1274630)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1274631)									
pH	----	E108	----	pH units	7 pH units	98.8	98.0	102	----
Physical Tests (QCLot: 1277031)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Anions and Nutrients (QCLot: 1273499)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.8	85.0	115	----
Anions and Nutrients (QCLot: 1274538)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1274540)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1274541)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1274542)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1274543)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1274544)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1274545)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 1274546)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1275457)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.2	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1275482)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.9	85.0	115	----
Cyanides (QCLot: 1276785)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1276789)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1276790)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	98.6	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1275079)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.7	80.0	120	----
Total Metals (QCLot: 1274860)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	98.4	80.0	120	----
Total Metals (QCLot: 1276348)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	107	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	103	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	110	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	111	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1276348) - continued									
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	107	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.5	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	91.3	80.0	120	----
Total Metals (QCLot: 1276351)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	111	80.0	120	----
Total Metals (QCLot: 1276353)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1282393)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.3	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.6	80.0	120	----
Dissolved Metals (QCLot: 1276380)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	94.8	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	90.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1276380) - continued									
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	95.5	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	97.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.9	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	99.7	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.3	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.6	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	105	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	98.6	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	93.5	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.9	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.1	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.6	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.9	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.7	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.8	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.9	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	94.0	80.0	120	----
Dissolved Metals (QCLot: 1276381)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	95.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1273499)										
WP2332223-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0977 mg/L	0.1 mg/L	97.7	75.0	125	----
Anions and Nutrients (QCLot: 1274538)										
WP2332133-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.9 mg/L	100 mg/L	99.9	75.0	125	----
Anions and Nutrients (QCLot: 1274543)										
WP2332240-002	CR-FDP	Sulfate (as SO4)	14808-79-8	E235.SO4	98.8 mg/L	100 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 1274544)										
WP2332240-002	CR-FDP	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1274545)										
WP2332240-002	CR-FDP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.494 mg/L	0.5 mg/L	98.9	75.0	125	----
Anions and Nutrients (QCLot: 1274546)										
WP2332240-002	CR-FDP	Chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1275457)										
WP2332136-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.243 mg/L	0.25 mg/L	97.3	70.0	130	----
Anions and Nutrients (QCLot: 1275482)										
WP2332339-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Cyanides (QCLot: 1276785)										
CG2317596-001	Anonymous	Cyanide, free	----	E339-L	0.118 mg/L	0.125 mg/L	94.7	75.0	125	----
Cyanides (QCLot: 1276789)										
WP2332240-001	CR-REF	Cyanide, weak acid dissociable	----	E336-L	0.122 mg/L	0.125 mg/L	97.9	75.0	125	----
Cyanides (QCLot: 1276790)										
WP2332240-001	CR-REF	Cyanide, strong acid dissociable (Total)	----	E333-L	0.230 mg/L	0.25 mg/L	91.9	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1275079)										
WP2332136-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1274860)										
WP2332133-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000995 mg/L	0.0001 mg/L	99.5	70.0	130	----
Total Metals (QCLot: 1282393)										
WP2332240-007	BLANK-01	Mercury, total	7439-97-6	E508	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1274861)										
WP2332136-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000994 mg/L	0.0001 mg/L	99.4	70.0	130	----
Dissolved Metals (QCLot: 1276380)										
WP2332223-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.197 mg/L	0.2 mg/L	98.5	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0223 mg/L	0.02 mg/L	112	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0236 mg/L	0.02 mg/L	118	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0451 mg/L	0.04 mg/L	113	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00892 mg/L	0.01 mg/L	89.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.094 mg/L	0.1 mg/L	93.7	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00421 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0397 mg/L	0.04 mg/L	99.2	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0184 mg/L	0.02 mg/L	91.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.02 mg/L	2 mg/L	101	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0186 mg/L	0.02 mg/L	93.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0213 mg/L	0.02 mg/L	107	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0370 mg/L	0.04 mg/L	92.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.4 mg/L	10 mg/L	114	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.06 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0522 mg/L	0.04 mg/L	130	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.92 mg/L	10 mg/L	99.2	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00388 mg/L	0.004 mg/L	97.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	22.2 mg/L	20 mg/L	111	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0445 mg/L	0.04 mg/L	111	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00379 mg/L	0.004 mg/L	94.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0209 mg/L	0.02 mg/L	105	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1276380) - continued										
WP2332223-001	Anonymous	Titanium, dissolved	7440-32-6	E421	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00390 mg/L	0.004 mg/L	97.5	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.401 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----

Report To		Reports / Recipients		Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)		☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A		☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1	ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2	hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3	christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4	jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5	curtis.bloemberg@kinross.com	
Company:		Email 6	emily.meek@kinross.com	Analysis Request
		Email 7	aaron.peloquin@kinross.com	
		Email 8	amy.elliot@wsp.com	
		Email 9	dale.klodnicki@wsp.com	
Contact:		Email 10	matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer / Sampler: CB/AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
	CR-REF	8-Dec-23	9:50	Water	9	X			8.33	1.7	64
	CR-FDP	8-Dec-23	10:55	Water	9	X			7.81	1	55.6
	SW-GL	8-Dec-23	12:40	Water	9	X			7.89	1.3	45.5
	SW-01	9-Dec-23	11:15	Water	9	X			6.25	0	61.8
	SW-TR	9-Dec-23	12:25	Water	9	X			5.61	0.4	22.9
	SW-03	9-Dec-23	14:30	Water	9	X			7.72	0.8	150.9
	BLANK-01	8-Dec-23	10:10	Water	9	X			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Date: 11 Oct 2023	Time:	Received by: SM	DEC 12 2023	Time: 0902	Received by:	Time:

5.6°c

Environmental Division
Winnipeg
Work Order Reference
WP2332240

Telephone : +1 204 255 9720

Sample Intake						
Client: Kinross						
Cheque Enclosed with CoC		Yes	No			
Priority/Emergency Required (circle one)		Yes	No			
Time Sensitive Hold Time (circle one)		Yes	No			
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White	7x500 7x125	Yellow/Black	17x Vial			
Purple/White	7x100	Light blue/White				
Warm red/White	14x125	Orange/Black				
Dark Green/White	7x60	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2401043**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 16-Jan-2024 09:40
PO	: PPR-022-3	Date Analysis Commenced	: 16-Jan-2024
C-O-C number	: ----	Issue Date	: 24-Jan-2024 12:50
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cameron Hancocks	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.
Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Sample(s) Met-T -002 & -004: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-08	FIELD-01	TRAVEL BLANK	SW-04
					Client sampling date / time	13-Jan-2024 11:15	12-Jan-2024 15:00	12-Jan-2024 14:20	12-Jan-2024 12:00	12-Jan-2024 14:20
						WP2401043-001	WP2401043-002	WP2401043-003	WP2401043-004	WP2401043-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		5.15	7.34	----	----	7.07
Temperature, field	----	EF001/WP	0.10	°C		0.40	<0.10	----	----	<0.10
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		49.7	4.0	<2.0	<2.0	4.9
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		1.6	51.2	Not Detected	Not Detected	48.3
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		1.6	51.2	Not Detected	Not Detected	48.3
Conductivity	----	E100/WP	1.0	µS/cm		55.8	104	Not Detected	Not Detected	99.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		26.2	52.6	<0.50	<0.50	51.2
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		30.9	52.3	<0.50	<0.50	52.3
pH	----	E108/WP	0.10	pH units		4.85	7.23	5.14	5.26	7.16
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		187 RRV	86.3	<3.0	<3.0	82.3
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		226	3.4	<1.0	<1.0	3.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		----	0.0413	0.0082	Not Detected	0.0391
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.183	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.94	0.43	Not Detected	Not Detected	0.41
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		Not Detected	0.0832	Not Detected	Not Detected	0.0662
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0852	<0.0051	<0.0051	0.0680
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		Not Detected	0.0020	Not Detected	Not Detected	0.0018
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0987	0.0231	<0.0020	<0.0020	0.0249
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.33	0.96	<0.30	<0.30	0.82
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-08	FIELD-01	TRAVEL BLANK	SW-04
					Client sampling date / time	13-Jan-2024 11:15	12-Jan-2024 15:00	12-Jan-2024 14:20	12-Jan-2024 12:00	12-Jan-2024 14:20
						WP2401043-001	WP2401043-002	WP2401043-003	WP2401043-004	WP2401043-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0015	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		100	17.6	<0.50	0.64	16.3
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		2.23	0.148	0.0014	0.00088	0.145
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00042	0.000074	0.000013	0.000012	0.00015
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0166	0.00162	0.000045	0.000047	0.00160
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0194	0.0119	0.000020	0.000013	0.0122
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000077	0.0000094	Not Detected	Not Detected	0.000011
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.000036	0.0000028	Not Detected	0.00000065	0.0000049
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0066	0.0063	0.0019	0.0016	0.0059
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000819	0.0000058	Not Detected	Not Detected	0.0000049
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		8.88	14.3	0.0089	0.0052	14.2
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000464	0.000013	Not Detected	Not Detected	0.000015
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00428	0.00045	0.00014	<0.00010	0.00051
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00428	0.00045	0.00014	Not Detected	0.00051
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00129	0.00014	Not Detected	Not Detected	0.00015
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00385	0.00082	Not Detected	Not Detected	0.00107
Iron, total	7439-89-6	E420/WP	0.010	mg/L		3.75	0.355	0.0013	Not Detected	0.361
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.00220	0.000112	Not Detected	Not Detected	0.000130
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0035	0.0019	Not Detected	Not Detected	0.0020
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.11	4.02	0.0019	0.0016	4.09
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0473	0.0192	0.000021	0.000010	0.0244
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000064	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000344	0.000259	0.000022	0.000012	0.000255
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00327	0.00059	0.00012	Not Detected	0.00065
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.121	<0.030	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.121	0.026	0.021	0.026	0.022
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.500	1.27	Not Detected	Not Detected	1.29

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-08	FIELD-01	TRAVEL BLANK	SW-04
					Client sampling date / time	13-Jan-2024 11:15	12-Jan-2024 15:00	12-Jan-2024 14:20	12-Jan-2024 12:00	12-Jan-2024 14:20
						WP2401043-001	WP2401043-002	WP2401043-003	WP2401043-004	WP2401043-005
						Result	Result	Result	Result	Result
Total Metals										
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00239	0.00218	Not Detected	Not Detected	0.00231
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000417	0.000098	0.000012	0.0000058	0.000089
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		4.39	3.51	0.034	0.030	3.54
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000021	0.0000015	Not Detected	Not Detected	0.0000036
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.99	1.90	0.016	Not Detected	1.93
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0344	0.0321	Not Detected	Not Detected	0.0326
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.13	0.41	Not Detected	Not Detected	0.46
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000026	0.0000035	Not Detected	Not Detected	0.0000043
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00037	0.000046	Not Detected	Not Detected	0.000042
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.00014	0.000015	0.000068	Not Detected	0.000067
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0676	0.00585	0.000042	Not Detected	0.00595
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000088	0.000014	Not Detected	Not Detected	0.000022
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000426	0.000200	Not Detected	Not Detected	0.000170
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00313	0.00081	0.00016	0.00017	0.00081
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0289	0.0017	0.00088	0.00073	0.0040
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00070	0.00021	Not Detected	Not Detected	0.00024
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		1.23	0.0333	0.00021	0.00041	0.0362
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00030	0.00010	0.000030	0.000024	0.000089
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.0154	0.00155	0.000043	0.000039	0.00158
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0132	0.0114	0.000014	0.000014	0.0113
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000042	0.0000081	Not Detected	0.0000020	0.0000090
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		0.000014	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0047	0.0056	0.0017	0.0012	0.0054
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000311	0.0000022	0.00000050	0.0000015	0.0000036
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		7.03	14.1	Not Detected	Not Detected	13.9
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.000031	0.0000028	Not Detected	0.0000026	0.0000028
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00270	0.00021	<0.00010	<0.00010	0.00022
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00270	0.00021	Not Detected	Not Detected	0.00022

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-TR	SW-08	FIELD-01	TRAVEL BLANK	SW-04
					Client sampling date / time	13-Jan-2024 11:15	12-Jan-2024 15:00	12-Jan-2024 14:20	12-Jan-2024 12:00	12-Jan-2024 14:20
						WP2401043-001	WP2401043-002	WP2401043-003	WP2401043-004	WP2401043-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00112	0.000063	Not Detected	0.0000030	0.00010
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00116	0.00072	0.000024	0.000025	0.00076
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		3.68	0.171	Not Detected	Not Detected	0.219
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000599	0.000051	Not Detected	Not Detected	0.000067
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0022	0.0014	Not Detected	Not Detected	0.0014
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.10	4.22	Not Detected	Not Detected	4.00
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0423	0.00198	Not Detected	0.000049	0.0198
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000102	0.000229	Not Detected	Not Detected	0.000230
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00215	0.00049	Not Detected	Not Detected	0.00048
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.022	0.011	Not Detected	0.0083	0.023
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.331	1.21	Not Detected	Not Detected	1.20
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00097	0.00210	Not Detected	Not Detected	0.00208
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000298	0.000130	Not Detected	0.000014	0.000101
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.87	2.98	Not Detected	0.011	2.98
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000025	Not Detected	Not Detected	Not Detected	0.0000014
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.51	1.85	0.010	0.020	1.78
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0308	0.0326	Not Detected	0.000049	0.0326
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.98	0.60	0.14	0.076	0.58
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.000016	0.0000023	Not Detected	0.0000013	0.0000036
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00031	0.000033	Not Detected	Not Detected	0.000034
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000059	Not Detected	0.000012	Not Detected	0.000011
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.0205	0.00102	Not Detected	Not Detected	0.00114
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	0.000010	Not Detected	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000153	0.000172	Not Detected	0.0000012	0.000152
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00164	0.00041	Not Detected	Not Detected	0.00043
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0144	Not Detected	Not Detected	Not Detected	0.00095
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00076	0.00019	Not Detected	Not Detected	0.00019

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-TR	SW-08	FIELD-01	TRAVEL BLANK	SW-04
					Client sampling date / time	13-Jan-2024 11:15	12-Jan-2024 15:00	12-Jan-2024 14:20	12-Jan-2024 12:00	12-Jan-2024 14:20
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401043-001	WP2401043-002	WP2401043-003	WP2401043-004	WP2401043-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Laboratory	Field	Laboratory	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	DUP-01	SW-01	----	----	----
				Client sampling date / time	12-Jan-2024 14:20	12-Jan-2024 13:15	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2401043-006	WP2401043-007	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.07	7.02	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	<0.10	0.30	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	4.8	47.8	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	49.0	58.3	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	Not Detected	Not Detected	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	Not Detected	Not Detected	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	Not Detected	Not Detected	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	49.0	58.3	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	102	151	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	52.0	68.8	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	53.0	106	----	----	----
pH	----	E108/WP	0.10	pH units	7.08	6.06	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	78.7	262 RRV	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	3.4	258	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0339	----	----	----	----
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	----	0.233	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.76	2.95	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0792	0.0246	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0813	0.0246	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0021	0.00086	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0251	0.312	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.99	2.90	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	0.0018	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	0.0022	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-01	SW-01	----	----	----
					Client sampling date / time	12-Jan-2024 14:20	12-Jan-2024 13:15	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401043-006	WP2401043-007	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0018	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		17.7	82.5	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.144	11.1	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000099	0.00054	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00167	0.0230	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0120	0.0979	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000011	0.000316	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000036	0.000088	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0060	0.0080	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000050	0.000160	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		14.3	27.6	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000012	0.00116	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00045	0.0198	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00045	0.0198	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00013	0.00816	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00102	0.0114	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.337	17.1	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000130	0.00704	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	0.0183	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		4.20	8.95	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0249	0.982	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000091	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000244	0.000357	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00066	0.0118	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.778	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.023	0.778	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.33	2.16	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00233	0.0177	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-01	SW-01	----	----	----
					Client sampling date / time	12-Jan-2024 14:20	12-Jan-2024 13:15	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401043-006	WP2401043-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000128	0.000500	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.44	30.0	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000021	0.000057	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.12	4.94	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0343	0.0850	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.56	2.00	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000033	0.000111	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000040	0.00062	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000018	0.00022	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00562	0.465	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000013	0.00016	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000166	0.000764	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00085	0.0188	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0022	0.0581	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00034	0.00112	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0375	0.634	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000088	0.00032	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00157	0.0142	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0119	0.0215	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000091	0.000039	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	0.000010	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0055	0.0059	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000044	0.0000145	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		14.0	19.0	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000040	0.0000091	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00021	0.00176	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00021	0.00176	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00010	0.00286	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-01	SW-01	----	----	----
					Client sampling date / time	12-Jan-2024 14:20	12-Jan-2024 13:15	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401043-006	WP2401043-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00090	0.00129	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.223	6.10	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000069	0.000322	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0014	0.0022	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.14	5.18	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0205	0.607	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	0.0000058	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000224	0.000117	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00053	0.00194	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.044	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.016	0.044	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.22	0.966	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00209	0.00280	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000119	0.000322	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.03	13.7	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000021	0.0000075	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.88	3.74	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0319	0.0561	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.51	1.54	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000039	0.000011	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000037	0.00035	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000029	0.000093	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00112	0.0108	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000153	0.000164	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00049	0.00198	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0013	0.0080	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00019	0.00104	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-01	SW-01	----	----	----
					Client sampling date / time	12-Jan-2024 14:20	12-Jan-2024 13:15	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401043-006	WP2401043-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2401043**	Page	: 1 of 29
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 16-Jan-2024 09:40
PO	: PPR-022-3	Issue Date	: 24-Jan-2024 12:50
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	13-Jan-2024	16-Jan-2024	28 days	3 days	✓	16-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-01	E298	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) FIELD-01	E298	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) TRAVEL BLANK	E298	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-TR	E235.Cl-L	13-Jan-2024	16-Jan-2024	28 days	3 days	✓	16-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DUP-01	E235.Cl-L	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE FIELD-01	E235.Cl-L	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-01	E235.Cl-L	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-04	E235.Cl-L	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-08	E235.Cl-L	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE TRAVEL BLANK	E235.Cl-L	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DUP-01	E235.NO3-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE FIELD-01	E235.NO3-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-04	E235.NO3-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-08	E235.NO3-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-TR	E235.NO3-L	13-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-01	E235.NO3-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE TRAVEL BLANK	E235.NO3-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DUP-01	E235.NO2-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE FIELD-01	E235.NO2-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-04	E235.NO2-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-08	E235.NO2-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-TR	E235.NO2-L	13-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-01	E235.NO2-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	4 days	× EHTR-FM
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE TRAVEL BLANK	E235.NO2-L	12-Jan-2024	16-Jan-2024	3 days	3 days	✓	16-Jan-2024	3 days	4 days	× EHTR-FM
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-TR	E235.SO4	13-Jan-2024	16-Jan-2024	28 days	3 days	✓	16-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE DUP-01	E235.SO4	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE FIELD-01	E235.SO4	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-01	E235.SO4	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-04	E235.SO4	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-08	E235.SO4	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
TRAVEL BLANK	E235.SO4	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TR	E372-U	13-Jan-2024	17-Jan-2024	28 days	4 days	✓	18-Jan-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-01	E372-U	12-Jan-2024	17-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
FIELD-01	E372-U	12-Jan-2024	17-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-01	E372-U	12-Jan-2024	17-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-04	E372-U	12-Jan-2024	17-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08	E372-U	12-Jan-2024	17-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
TRAVEL BLANK	E372-U	12-Jan-2024	17-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	13-Jan-2024	19-Jan-2024	14 days	6 days	✓	19-Jan-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E339-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-01	E339-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E339-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	13-Jan-2024	19-Jan-2024	14 days	6 days	✓	19-Jan-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-01	E333-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E333-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	13-Jan-2024	19-Jan-2024	14 days	6 days	✓	19-Jan-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-01	E336-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E336-L	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	19-Jan-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	13-Jan-2024	19-Jan-2024	180 days	6 days	✓	19-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.Cr-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
FIELD-01	E421.Cr-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.Cr-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	12-Jan-2024	23-Jan-2024	28 days	11 days	✓	23-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	13-Jan-2024	18-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-01	E509	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) FIELD-01	E509	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) TRAVEL BLANK	E509	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	13-Jan-2024	19-Jan-2024	180 days	6 days	✓	19-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-01	E421	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) FIELD-01	E421	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) TRAVEL BLANK	E421	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	13-Jan-2024	19-Jan-2024	180 days	6 days	✓	19-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-01	E421.P-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) FIELD-01	E421.P-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08	E421.P-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.P-L	12-Jan-2024	19-Jan-2024	180 days	7 days	✓	19-Jan-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	13-Jan-2024	----	----	----		16-Jan-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-01	EF001	12-Jan-2024	----	----	----		16-Jan-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
FIELD-01	EF001	12-Jan-2024	----	----	----		16-Jan-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	12-Jan-2024	----	----	----		16-Jan-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	12-Jan-2024	----	----	----		16-Jan-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08	EF001	12-Jan-2024	----	----	----		16-Jan-2024	----	4 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
TRAVEL BLANK	EF001	12-Jan-2024	----	----	----		16-Jan-2024	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	13-Jan-2024	18-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-01	E358-L	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
FIELD-01	E358-L	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08	E358-L	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
TRAVEL BLANK	E358-L	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-TR	E283	13-Jan-2024	19-Jan-2024	14 days	6 days	✓	20-Jan-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE DUP-01	E283	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	20-Jan-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE FIELD-01	E283	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	20-Jan-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	20-Jan-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-04	E283	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	20-Jan-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	20-Jan-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE TRAVEL BLANK	E283	12-Jan-2024	19-Jan-2024	14 days	7 days	✓	20-Jan-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TR	E290	13-Jan-2024	16-Jan-2024	14 days	3 days	✓	16-Jan-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DUP-01	E290	12-Jan-2024	16-Jan-2024	14 days	4 days	✓	16-Jan-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE FIELD-01	E290	12-Jan-2024	16-Jan-2024	14 days	4 days	✓	16-Jan-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-01	E290	12-Jan-2024	16-Jan-2024	14 days	4 days	✓	16-Jan-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-04	E290	12-Jan-2024	16-Jan-2024	14 days	4 days	✓	16-Jan-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08	E290	12-Jan-2024	16-Jan-2024	14 days	4 days	✓	16-Jan-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE TRAVEL BLANK	E290	12-Jan-2024	16-Jan-2024	14 days	4 days	✓	16-Jan-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-TR	E100	13-Jan-2024	16-Jan-2024	28 days	3 days	✓	16-Jan-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE DUP-01	E100	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE FIELD-01	E100	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-01	E100	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-04	E100	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-08	E100	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE TRAVEL BLANK	E100	12-Jan-2024	16-Jan-2024	28 days	4 days	✓	16-Jan-2024	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE SW-TR	E108	13-Jan-2024	16-Jan-2024	0.25 hrs	69 hrs	× EHTR-FM	16-Jan-2024	0.25 hrs	81 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08	E108	12-Jan-2024	16-Jan-2024	0.25 hrs	89 hrs	× EHTR-FM	16-Jan-2024	0.25 hrs	101 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE FIELD-01	E108	12-Jan-2024	16-Jan-2024	0.25 hrs	90 hrs	× EHTR-FM	16-Jan-2024	0.25 hrs	102 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-04	E108	12-Jan-2024	16-Jan-2024	0.25 hrs	90 hrs	× EHTR-FM	16-Jan-2024	0.25 hrs	102 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DUP-01	E108	12-Jan-2024	16-Jan-2024	0.25 hrs	90 hrs	× EHTR-FM	16-Jan-2024	0.25 hrs	90 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-01	E108	12-Jan-2024	16-Jan-2024	0.25 hrs	91 hrs	× EHTR-FM	16-Jan-2024	0.25 hrs	91 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE TRAVEL BLANK	E108	12-Jan-2024	16-Jan-2024	0.25 hrs	92 hrs	× EHTR-FM	16-Jan-2024	0.25 hrs	104 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TR	E162-L	13-Jan-2024	----	----	----		17-Jan-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DUP-01	E162-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE FIELD-01	E162-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-01	E162-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-04	E162-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08	E162-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE TRAVEL BLANK	E162-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	13-Jan-2024	----	----	----		17-Jan-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-01	E160-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] FIELD-01	E160-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] TRAVEL BLANK	E160-L	12-Jan-2024	----	----	----		17-Jan-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	13-Jan-2024	18-Jan-2024	180 days	5 days	✓	18-Jan-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) FIELD-01	E420.Cr-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.Cr-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	13-Jan-2024	18-Jan-2024	28 days	5 days	✓	18-Jan-2024	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) FIELD-01	E508	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
TRAVEL BLANK	E508	12-Jan-2024	18-Jan-2024	28 days	6 days	✓	18-Jan-2024	28 days	0 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-TR	E420	13-Jan-2024	18-Jan-2024	180 days	5 days	✓	18-Jan-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
DUP-01	E420	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
FIELD-01	E420	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-01	E420	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-04	E420	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-08	E420	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
TRAVEL BLANK	E420	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TR	E420.P-L	13-Jan-2024	18-Jan-2024	180 days	5 days	✓	18-Jan-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-01	E420.P-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) FIELD-01	E420.P-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.P-L	12-Jan-2024	18-Jan-2024	180 days	6 days	✓	18-Jan-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1306878	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1305373	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1303910	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1303967	1	7	14.2	5.0	✓
Conductivity in Water	E100	1305372	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1306687	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1305754	2	32	6.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1306686	0	20	0.0	5.0	✗
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1305349	1	13	7.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1306685	0	8	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1306907	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1303965	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1303966	1	8	12.5	5.0	✓
pH by Meter	E108	1305371	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1303964	1	7	14.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1304065	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1305644	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1306908	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1305750	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1305643	0	18	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1304992	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1305645	0	7	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1304063	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1306906	1	7	14.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1306878	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1305373	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1303910	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1303967	1	7	14.2	5.0	✓
Conductivity in Water	E100	1305372	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1306687	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1305754	2	32	6.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1306686	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1305349	1	13	7.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1306685	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1306907	1	7	14.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1303965	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1303966	1	8	12.5	5.0	✓
pH by Meter	E108	1305371	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1303964	1	7	14.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1304065	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1305644	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1306908	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1305750	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1305643	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1304992	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1305645	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1304063	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1306906	1	7	14.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1306878	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1305373	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1303910	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1303967	1	7	14.2	5.0	✓
Conductivity in Water	E100	1305372	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1306687	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1305754	2	32	6.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1306686	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1305349	1	13	7.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1306685	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1306907	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1303965	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1303966	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1303964	1	7	14.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1304065	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1305644	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1306908	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1305750	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1305643	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1304992	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1305645	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1304063	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1306906	1	7	14.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1303910	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1303967	1	7	14.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1306687	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1305754	2	32	6.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1306686	0	20	0.0	5.0	✗
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1305349	1	13	7.6	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1306685	0	8	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1306907	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1303965	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1303966	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1303964	1	7	14.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1305644	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1306908	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1305750	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1305643	0	18	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1304992	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1305645	0	7	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1306906	1	7	14.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2401043**	Page	: 1 of 14
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 16-Jan-2024 09:40
PO	: PPR-022-3	Date Analysis Commenced	: 16-Jan-2024
C-O-C number	: ----	Issue Date	: 24-Jan-2024 12:52
Sampler	: ---- ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cameron Hancocks	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1304063)											
WP2401043-001	SW-TR	Solids, total suspended [TSS]	----	E160-L	2.5	mg/L	226	234	3.26%	20%	----
Physical Tests (QC Lot: 1304065)											
WP2401043-001	SW-TR	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	187	189	0.886%	20%	----
Physical Tests (QC Lot: 1305371)											
WP2401043-005	SW-04	pH	----	E108	0.10	pH units	7.16	7.16	0.00%	4%	----
Physical Tests (QC Lot: 1305372)											
WP2401043-005	SW-04	Conductivity	----	E100	1.0	µS/cm	99.0	99.8	0.805%	10%	----
Physical Tests (QC Lot: 1305373)											
WP2401043-005	SW-04	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	48.3	48.0	0.623%	20%	----
Physical Tests (QC Lot: 1306878)											
WP2401043-001	SW-TR	Acidity (as CaCO3)	----	E283	2.0	mg/L	49.7	46.5	6.65%	20%	----
Anions and Nutrients (QC Lot: 1303910)											
WP2400997-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0250	mg/L	0.814	0.807	0.812%	20%	----
Anions and Nutrients (QC Lot: 1303964)											
WP2401043-001	SW-TR	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.33	0.33	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1303965)											
WP2401043-001	SW-TR	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1303966)											
WP2401043-001	SW-TR	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1303967)											
WP2401043-001	SW-TR	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.94	0.93	0.006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1304992)											
WP2401043-001	SW-TR	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0987	0.106	6.84%	20%	----
Cyanides (QC Lot: 1306906)											
WP2401043-001	SW-TR	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	0.0010	0.00001	Diff <2x LOR	----
Cyanides (QC Lot: 1306907)											
WP2401043-001	SW-TR	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	0.0010	0.00003	Diff <2x LOR	----
Cyanides (QC Lot: 1306908)											
WP2401043-001	SW-TR	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0015	0.0015	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1305349)											
WP2401043-001	SW-TR	Carbon, dissolved organic [DOC]	----	E358-L	1.00	mg/L	100	114	12.4%	20%	----
Total Metals (QC Lot: 1305750)											
WP2400920-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1305754)											
WP2400805-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1306687)											
WP2401043-001	SW-TR	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00270	0.00254	6.29%	20%	----
Dissolved Metals (QC Lot: 1309587)											
WP2401043-007	SW-01	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000058	0.0000068	0.0000010	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1304063)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1304065)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1305372)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1305373)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1306878)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1303910)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1303964)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1303965)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1303966)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1303967)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1304992)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1306906)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1306907)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1306908)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1305349)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1305643)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1305643) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1305643) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1305644)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1305645)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1305750)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1305754)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1306685)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1306686)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	B
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1306686) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1306687)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1309587)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1304063)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	105	85.0	115	----
Physical Tests (QCLot: 1304065)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.5	85.0	115	----
Physical Tests (QCLot: 1305371)									
pH	----	E108	----	pH units	7 pH units	99.6	98.0	102	----
Physical Tests (QCLot: 1305372)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1305373)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1306878)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1303910)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1303964)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1303965)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1303966)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1303967)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1304992)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.8	80.0	120	----
Cyanides (QCLot: 1306906)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	99.8	80.0	120	----
Cyanides (QCLot: 1306907)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.4	80.0	120	----
Cyanides (QCLot: 1306908)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	91.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1305349)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.3	80.0	120	----
Total Metals (QCLot: 1305643)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.1	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.9	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.7	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	93.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.4	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.7	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.1	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.8	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.0	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	101	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	95.7	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	99.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1305643) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.3	80.0	120	----
Total Metals (QCLot: 1305644)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Total Metals (QCLot: 1305645)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Total Metals (QCLot: 1305750)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	103	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Dissolved Metals (QCLot: 1306686)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.0	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	103	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	99.6	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.1	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.5	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	99.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	97.8	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.8	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.8	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	96.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1306686) - continued									
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.6	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	96.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	94.4	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	93.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.9	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.3	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	96.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.1	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.5	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.6	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	95.7	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.4	80.0	120	----
Dissolved Metals (QCLot: 1306687)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	103	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1303910)										
WP2400997-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	0.1 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 1303964)										
WP2401043-001	SW-TR	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1303965)										
WP2401043-001	SW-TR	Nitrate (as N)	14797-55-8	E235.NO3-L	2.62 mg/L	2.5 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1303966)										
WP2401043-001	SW-TR	Nitrite (as N)	14797-65-0	E235.NO2-L	0.500 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1303967)										
WP2401043-001	SW-TR	Chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1304992)										
WP2401043-003	FIELD-01	Phosphorus, total	7723-14-0	E372-U	0.239 mg/L	0.25 mg/L	95.7	70.0	130	----
Cyanides (QCLot: 1306906)										
WP2401043-001	SW-TR	Cyanide, weak acid dissociable	----	E336-L	0.126 mg/L	0.125 mg/L	101	75.0	125	----
Cyanides (QCLot: 1306907)										
WP2401043-001	SW-TR	Cyanide, free	----	E339-L	0.122 mg/L	0.125 mg/L	97.5	75.0	125	----
Cyanides (QCLot: 1306908)										
WP2401043-001	SW-TR	Cyanide, strong acid dissociable (Total)	----	E333-L	0.196 mg/L	0.25 mg/L	78.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1305349)										
WP2401043-002	SW-08	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1305750)										
WP2400934-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000999 mg/L	0.0001 mg/L	99.9	70.0	130	----
Dissolved Metals (QCLot: 1305754)										
WP2400805-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1306687)										
WP2401043-001	SW-TR	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0392 mg/L	0.04 mg/L	98.0	70.0	130	----
Dissolved Metals (QCLot: 1309587)										
WP2401461-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: CB/AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-TR	13-Jan-24	11:15	Water	9	X			5.15	0.4	130.1
	SW-08	12-Jan-24	15:00	Water	9	X			7.34	0	113.7
	Field-01	12-Jan-24	14:20	Water	9	X			X	X	X
	Travel Blank	12-Jan-24	12:00	Water	9	X			X	X	X
	SW-04	12-Jan-24	14:20	Water	9	X			7.07	0	125
	Dup-01	12-Jan-24	14:20	Water	9	X			7.07	0	125
	SW-01	12-Jan-24	13:15	Water	9	X			7.02	0.3	319

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMEN
Released by: JM	Date: Jan 15 2024	Time: 8:30	Received by: CH	Date: JAN 16 2024	Time: 9:40	Received by:

0.0°C

Environmental Division
Winnipeg
Work Order Reference
WP2401043

Telephone : +1 204 255 9720

Sample Intake						
Client:						
Cheque Enclosed with CoC			Yes		No	
Priority/Emergency Required (circle one)			Yes		No	
Time Sensitive Hold Time (circle one)			Yes		No	
Matrix (circle one)			Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White			Yellow/Black			
Purple/White			Light blue/White			
Warm red/White			Orange/Black			
Dark Green/White			Dark Blue/White			
Grey/black			Black/white			
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered		✓
Sub-contracting Forms Printed		✓
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2401461**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 19-Jan-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 19-Jan-2024
C-O-C number	: ----	Issue Date	: 25-Jan-2024 15:28
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Sample(s) Hg-T -002: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	CR-FDP	CR-REF	----	----
					Client sampling date / time	16-Jan-2024 12:40	16-Jan-2024 13:30	16-Jan-2024 15:00	----	----
						WP2401461-001	WP2401461-002	WP2401461-003	--------	--------
						Result	Result	Result	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.90	6.35	6.74	----	----
Temperature, field	----	EF001/WP	0.10	°C		1.90	0.10	<0.10	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	4.0	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		36.9	30.8	30.4	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		36.9	30.8	30.4	----	----
Conductivity	----	E100/WP	1.0	µS/cm		81.2	90.7	88.6	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		32.9	37.7	35.6	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		37.2	60.8	36.2	----	----
pH	----	E108/WP	0.10	pH units		7.57	7.32	7.43	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		64.2	79.6	60.6	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.4	467	2.8	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0152	0.0255	0.0273	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.79	3.54	2.91	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0078	0.0735	0.0690	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0078	0.0735	0.0700	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.00088	0.00098	0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0191	0.408	0.0200	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.58	6.85	6.30	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	CR-FDP	CR-REF	----	----
					Client sampling date / time	16-Jan-2024 12:40	16-Jan-2024 13:30	16-Jan-2024 15:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401461-001	WP2401461-002	WP2401461-003	--------	--------
						Result	Result	Result	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.1	13.7	12.0	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0152	6.06	0.0538	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00064	0.00041	0.00030	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00191	0.0159	0.00827	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00785	0.0607	0.00718	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.00000023	0.000227	0.0000047	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000021	0.000054	0.0000015	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0096	0.012	0.0079	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000084	0.0000875	0.0000015	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.6	14.3	10.3	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.0000072	0.000696	0.0000079	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00044	0.0133	0.00028	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00044	0.0133	0.00028	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000027	0.00427	0.000068	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00087	0.0134	0.00139	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.126	7.36	0.072	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000089	0.00408	0.000036	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0021	0.0117	0.0021	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.62	6.10	2.54	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0107	0.200	0.00373	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000124	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000124	0.000199	0.000206	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00029	0.0128	0.00116	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.422	<0.030	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.030	0.422	0.014	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.26	2.36	1.02	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00202	0.0143	0.00160	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	CR-FDP	CR-REF	----	----
					Client sampling date / time	16-Jan-2024 12:40	16-Jan-2024 13:30	16-Jan-2024 15:00	----	----
						WP2401461-001	WP2401461-002	WP2401461-003	--------	--------
						Result	Result	Result	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000045	0.000093	0.000088	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.68	11.3	1.61	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000031	0.000028	0.0000019	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.53	4.16	2.53	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0248	0.0470	0.0292	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.46	6.03	2.02	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000010	0.000087	0.0000016	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	0.00073	0.000019	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000030	0.00033	0.000021	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00052	0.292	0.00228	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000014	0.00013	0.000029	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000040	0.000641	0.000085	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00021	0.0143	0.00044	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0162	0.0384	0.0029	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.000036	0.00140	0.00011	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0014	0.0308	0.0063	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00030	0.00038	0.00032	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00150	0.00371	0.00790	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00692	0.00907	0.00702	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000034	0.0000053	0.0000030	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0093	0.0085	0.0069	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000054	0.0000013	0.0000012	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.39	10.4	10.0	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000061	0.0000028	0.0000016	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00010	0.00024	0.00017	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00010	0.00024	0.00017	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000019	0.00024	0.000043	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	CR-FDP	CR-REF	----	----
					Client sampling date / time	16-Jan-2024 12:40	16-Jan-2024 13:30	16-Jan-2024 15:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401461-001	WP2401461-002	WP2401461-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00052	0.00129	0.00131	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.086	0.173	0.022	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000044	0.000092	0.000010	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0012	0.0016	0.0015	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.29	2.85	2.59	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00900	0.0612	0.00125	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000121	0.000198	0.000163	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00020	0.00141	0.00115	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.03	1.07	0.988	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00161	0.00154	0.00150	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000069	0.000099	0.000083	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.501	1.64	1.48	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000018	Not Detected	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.30	4.42	2.66	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0225	0.0297	0.0283	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.32	2.94	2.13	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	0.0000014	0.0000012	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	0.000023	0.000011	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000019	0.000025	0.000010	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.000047	0.00142	0.00014	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	0.000028	0.000021	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000030	0.000084	0.000077	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.000072	0.00056	0.00023	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0131	0.0020	0.0038	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.000021	0.00016	0.000083	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	CR-FDP	CR-REF	----	----
					Client sampling date / time	16-Jan-2024 12:40	16-Jan-2024 13:30	16-Jan-2024 15:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401461-001	WP2401461-002	WP2401461-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2401461**	Page	: 1 of 18
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 19-Jan-2024 09:00
PO	: PPR-022-3	Issue Date	: 25-Jan-2024 15:31
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
HDPE - unspecified total (lab preserved) CR-FDP	E298	16-Jan-2024	19-Jan-2024	3 days	3 days	✓	19-Jan-2024	28 days	0 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	16-Jan-2024	19-Jan-2024	7 days	3 days	✓	19-Jan-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	16-Jan-2024	19-Jan-2024	7 days	3 days	✓	19-Jan-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO3-L	16-Jan-2024	19-Jan-2024	7 days	3 days	✓	19-Jan-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	16-Jan-2024	19-Jan-2024	7 days	3 days	✓	19-Jan-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	16-Jan-2024	19-Jan-2024	7 days	3 days	✓	19-Jan-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	16-Jan-2024	19-Jan-2024	7 days	3 days	✓	19-Jan-2024	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL	E235.SO4	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	16-Jan-2024	22-Jan-2024	28 days	6 days	✓	23-Jan-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	16-Jan-2024	22-Jan-2024	28 days	6 days	✓	23-Jan-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
HDPE - unspecified total (lab preserved) CR-FDP	E372-U	16-Jan-2024	22-Jan-2024	3 days	6 days	× EHTL	23-Jan-2024	28 days	1 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E339-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E339-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E339-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E333-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E333-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E333-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E336-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E336-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E336-L	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-FDP	E421.Cr-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-REF	E421.Cr-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	16-Jan-2024	23-Jan-2024	28 days	7 days	✓	23-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	16-Jan-2024	23-Jan-2024	28 days	7 days	✓	23-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	16-Jan-2024	23-Jan-2024	28 days	7 days	✓	23-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-FDP	EF001	16-Jan-2024	----	----	----		19-Jan-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-REF	EF001	16-Jan-2024	----	----	----		19-Jan-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL	EF001	16-Jan-2024	----	----	----		19-Jan-2024	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-FDP	E358-L	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-REF	E358-L	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	16-Jan-2024	23-Jan-2024	14 days	7 days	✓	23-Jan-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	16-Jan-2024	19-Jan-2024	14 days	3 days	✓	19-Jan-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	16-Jan-2024	19-Jan-2024	14 days	3 days	✓	19-Jan-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	16-Jan-2024	19-Jan-2024	14 days	3 days	✓	19-Jan-2024	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	16-Jan-2024	19-Jan-2024	28 days	3 days	✓	19-Jan-2024	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	16-Jan-2024	19-Jan-2024	14 days	3 days	✓	19-Jan-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	16-Jan-2024	19-Jan-2024	14 days	3 days	✓	19-Jan-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	16-Jan-2024	19-Jan-2024	14 days	3 days	✓	19-Jan-2024	14 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	16-Jan-2024	----	----	----		22-Jan-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	16-Jan-2024	----	----	----		22-Jan-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	16-Jan-2024	----	----	----		22-Jan-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	16-Jan-2024	----	----	----		22-Jan-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	16-Jan-2024	----	----	----		22-Jan-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	16-Jan-2024	----	----	----		22-Jan-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial - total (lab preserved) CR-FDP	E508	16-Jan-2024	23-Jan-2024	28 days	7 days	✓	23-Jan-2024	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	16-Jan-2024	23-Jan-2024	28 days	7 days	✓	23-Jan-2024	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	16-Jan-2024	23-Jan-2024	28 days	7 days	✓	23-Jan-2024	28 days	0 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	16-Jan-2024	22-Jan-2024	180 days	6 days	✓	22-Jan-2024	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1309546	1	11	9.0	5.0	✓
Alkalinity Species by Titration	E290	1308379	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1307001	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1307063	0	12	0.0	5.0	×
Conductivity in Water	E100	1308378	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1308473	0	3	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1309587	1	12	8.3	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1308472	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1306652	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1308474	0	3	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1309593	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1307069	0	3	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	1307070	0	3	0.0	5.0	×
pH by Meter	E108	1308377	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1307067	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1308334	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1308397	0	3	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1309591	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1309581	2	37	5.4	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1308396	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1308866	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1308398	0	6	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1308333	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1309592	1	5	20.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1309546	1	11	9.0	5.0	✓
Alkalinity Species by Titration	E290	1308379	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1307001	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1307063	1	12	8.3	5.0	✓
Conductivity in Water	E100	1308378	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1308473	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1309587	1	12	8.3	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1308472	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1306652	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1308474	1	3	33.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1309593	1	5	20.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1307069	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1307070	1	3	33.3	5.0	✓
pH by Meter	E108	1308377	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1307067	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1308334	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1308397	1	3	33.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1309591	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1309581	2	37	5.4	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1308396	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1308866	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1308398	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1308333	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1309592	1	5	20.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1309546	1	11	9.0	5.0	✓
Alkalinity Species by Titration	E290	1308379	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1307001	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1307063	1	12	8.3	5.0	✓
Conductivity in Water	E100	1308378	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1308473	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1309587	1	12	8.3	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1308472	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1306652	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1308474	1	3	33.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1309593	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1307069	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1307070	1	3	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1307067	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1308334	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1308397	1	3	33.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1309591	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1309581	2	37	5.4	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1308396	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1308866	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1308398	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1308333	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1309592	1	5	20.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1307001	1	16	6.2	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1307063	0	12	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1308473	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1309587	1	12	8.3	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1308472	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1306652	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1308474	0	3	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1309593	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1307069	0	3	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1307070	0	3	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1307067	1	10	10.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1308397	0	3	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1309591	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1309581	2	37	5.4	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1308396	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1308866	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1308398	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1309592	1	5	20.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2401461**	Page	: 1 of 18
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 19-Jan-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 19-Jan-2024
C-O-C number	: ----	Issue Date	: 25-Jan-2024 15:28
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1308333)											
WP2401461-001	SW-GL	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	3.4	3.1	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1308334)											
WP2401450-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	926	932	0.700%	20%	----
Physical Tests (QC Lot: 1308377)											
WP2401461-001	SW-GL	pH	----	E108	0.10	pH units	7.57	7.58	0.132%	4%	----
Physical Tests (QC Lot: 1308378)											
WP2401461-001	SW-GL	Conductivity	----	E100	1.0	µS/cm	81.2	81.1	0.123%	10%	----
Physical Tests (QC Lot: 1308379)											
WP2401461-001	SW-GL	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	36.9	36.6	0.816%	20%	----
Physical Tests (QC Lot: 1309546)											
WP2401461-001	SW-GL	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1307001)											
WP2401425-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	1.00	mg/L	10.0	9.42	0.632	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1307067)											
WP2401454-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	44.4	44.9	0.997%	20%	----
Anions and Nutrients (QC Lot: 1308866)											
WP2401323-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.480	0.474	1.24%	20%	----
Cyanides (QC Lot: 1309591)											
WP2401422-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1309592)											
WP2401461-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1309593)											
WP2401461-001	SW-GL	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1306652)											
WP2401415-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.65	1.58	0.07	Diff <2x LOR	----
Total Metals (QC Lot: 1308396)											
WP2401454-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0162	0.0165	0.0004	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00084	0.00084	0.000002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1308396) - continued											
WP2401454-002	Anonymous	Barium, total	7440-39-3	E420	0.00010	mg/L	0.00402	0.00392	2.59%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.066	0.067	0.001	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	3.58	3.61	0.988%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00719	0.00695	3.36%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.035	0.034	0.0005	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000130	0.000129	0.0000005	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0047	0.0048	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	0.522	0.524	0.423%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00602	0.00606	0.564%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.25	1.20	3.84%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00092	0.00092	0.000003	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.65	1.64	0.572%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	26.8	27.6	3.14%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.00827	0.00843	1.92%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1308396) - continued											
WP2401454-002	Anonymous	Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0055	0.0054	0.00010	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1309581)											
WP2401323-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1309582)											
WP2401461-002	CR-FDP	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000124	0.0000122	0.0000002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1308472)											
WP2401309-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	4.0 µg/L	0.0041	0.00007	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00020	0.00019	0.00002	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00390	0.00410	5.08%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0619	0.0623	0.667%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.093	0.100	0.007	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000166	0.0000165	0.00000007	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	71.5	75.4	5.24%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00013	0.00013	0.0000006	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00288	0.00292	1.35%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0598	0.0583	2.65%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	49.9	49.7	0.435%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00158	0.00151	4.78%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00273	0.00260	4.74%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00332	0.00333	0.000007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.281	0.285	0.004	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	10.1	10.0	0.429%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00296	0.00317	6.91%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.00121	0.00121	0.150%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	7.26	7.26	0.0518%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	60.5	61.9	2.23%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1308472) - continued											
WP2401309-003	Anonymous	Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.344	0.330	3.97%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	92.3	91.2	1.22%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00171	0.00168	0.00003	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00581	0.00592	1.89%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00216	0.00216	0.000001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0012	<0.0010	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1309587)											
WP2401043-007	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000058	0.0000068	0.0000010	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1308333)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1308334)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1308378)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1308379)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1309546)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1307001)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1307063)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1307067)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1307069)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1307070)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1308866)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1309591)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1309592)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1309593)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1306652)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1308396)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1308396) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1308396) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1308397)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1308398)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1309581)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1309582)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1308472)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1308472) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1308473)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1308474)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1309587)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1308333)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	97.8	85.0	115	----
Physical Tests (QCLot: 1308334)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.5	85.0	115	----
Physical Tests (QCLot: 1308377)									
pH	----	E108	----	pH units	7 pH units	99.7	98.0	102	----
Physical Tests (QCLot: 1308378)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.8	90.0	110	----
Physical Tests (QCLot: 1308379)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1309546)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1307001)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1307063)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1307067)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1307069)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1307070)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1308866)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	97.0	80.0	120	----
Cyanides (QCLot: 1309591)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Cyanides (QCLot: 1309592)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	104	80.0	120	----
Cyanides (QCLot: 1309593)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1306652)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.3	80.0	120	----
Total Metals (QCLot: 1308396)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.0	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.1	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	105	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.6	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	97.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	94.3	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	95.9	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	95.8	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.5	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.3	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.9	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	93.7	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.5	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	97.5	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.0	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.7	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	99.3	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1308396) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.9	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.9	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Total Metals (QCLot: 1308397)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	94.3	80.0	120	----
Total Metals (QCLot: 1308398)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Total Metals (QCLot: 1309581)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Total Metals (QCLot: 1309582)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1308472)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	97.7	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.1	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.0	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.3	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	99.5	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.5	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	99.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	95.1	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	94.6	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1308472) - continued									
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.9	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	93.3	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	91.7	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.7	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	90.3	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.7	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.3	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.2	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.1	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.8	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.1	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.5	80.0	120	----
Dissolved Metals (QCLot: 1308473)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	103	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1307001)										
WP2401425-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	0.1 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 1307067)										
WP2401454-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1308866)										
WP2401323-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	0.25 mg/L	ND	70.0	130	----
Cyanides (QCLot: 1309591)										
WP2401422-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.238 mg/L	0.25 mg/L	95.4	75.0	125	----
Cyanides (QCLot: 1309592)										
WP2401461-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1309593)										
WP2401461-001	SW-GL	Cyanide, free	----	E339-L	0.128 mg/L	0.125 mg/L	102	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1306652)										
WP2401415-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.97 mg/L	5 mg/L	99.4	70.0	130	----
Total Metals (QCLot: 1308396)										
WP2401454-002	Anonymous	Aluminum, total	7429-90-5	E420	0.220 mg/L	0.2 mg/L	110	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0438 mg/L	0.04 mg/L	110	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0111 mg/L	0.01 mg/L	111	70.0	130	----
		Boron, total	7440-42-8	E420	0.117 mg/L	0.1 mg/L	117	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	4.16 mg/L	4 mg/L	104	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, total	7440-50-8	E420	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Iron, total	7439-89-6	E420	2.08 mg/L	2 mg/L	104	70.0	130	----
		Lead, total	7439-92-1	E420	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1308396) - continued										
WP2401454-002	Anonymous	Lithium, total	7439-93-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Magnesium, total	7439-95-4	E420	1.06 mg/L	1 mg/L	106	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.5 mg/L	10 mg/L	105	70.0	130	----
		Potassium, total	7440-09-7	E420	4.13 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, total	7440-21-3	E420	9.93 mg/L	10 mg/L	99.3	70.0	130	----
		Silver, total	7440-22-4	E420	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Sulfur, total	7704-34-9	E420	22.0 mg/L	20 mg/L	110	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Tin, total	7440-31-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00440 mg/L	0.004 mg/L	110	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, total	7440-66-6	E420	0.413 mg/L	0.4 mg/L	103	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
Total Metals (QCLot: 1309581)										
WP2401323-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000954 mg/L	0.0001 mg/L	95.4	70.0	130	----
Total Metals (QCLot: 1309582)										
WP2401461-003	CR-REF	Mercury, total	7439-97-6	E508	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1308472)										
WP2401309-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.201 mg/L	0.2 mg/L	100	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1308472) - continued										
WP2401309-003	Anonymous	Bismuth, dissolved	7440-69-9	E421	0.00898 mg/L	0.01 mg/L	89.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00396 mg/L	0.004 mg/L	98.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0181 mg/L	0.02 mg/L	90.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.92 mg/L	2 mg/L	95.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0369 mg/L	0.04 mg/L	92.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.0 mg/L	10 mg/L	110	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.75 mg/L	10 mg/L	87.5	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00330 mg/L	0.004 mg/L	82.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00387 mg/L	0.004 mg/L	96.7	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.384 mg/L	0.4 mg/L	96.1	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1309587)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1309587) - continued										
WP2401461-001	SW-GL	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑Routine [R] if received by 3pm M-F - no surcharges app
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐N/A	☐4 day [P4] if received by 3pm M-F - 20% rush surcharg
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐3 day [P3] if received by 3pm M-F - 25% rush surcharg
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐2 day [P2] if received by 3pm M-F - 50% rush surcharg
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐1 day [E] if received by 3pm M-F - 100% rush surcharg
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐Same day [E2] if received by 10am M-S - 200% rush s
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush reques holidays and for non-rou
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Analysis Reque
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: CB/AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-GL	16-Jan-24	12:40	water	9	x			6.9	1.9	46.8
	CR-FDP	16-Jan-24	13:30	water	9	x			6.35	-0.1	4.6
	CR-REF	16-Jan-24	15:00	water	9	x			6.74	0	1.2

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: [redacted]	Date: [redacted] Jan 17/24	Time: [redacted] 10:30	Received by:	Date: JAN 19 2024	Time: 9:00	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2401461

Telephone : +1 204 255 9720

1.0

Sample Intake						
Client:	Great Bear					
Cheque Enclosed with CoC		Yes		No		
Priority/Emergency Required (circle one)		Yes		No		
Time Sensitive Hold Time (circle one)		Yes		No		
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White	3x500, 3x100	Yellow/Black	6x40			
Purple/White	6x100	Light blue/White				
Warm red/White	6x100	Orange/Black				
Dark Green/White	1x50	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2401958**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 26-Jan-2024 10:11
PO	: PPR-022-3	Date Analysis Commenced	: 26-Jan-2024
C-O-C number	: ----	Issue Date	: 01-Feb-2024 13:08
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	SW-GL	----	----	----
					Client sampling date / time	24-Jan-2024 12:25	24-Jan-2024 13:20	----	----	----
						WP2401958-001	WP2401958-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.39	7.41	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		1.50	0.70	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.9	7.8	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		30.9	41.9	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		30.9	41.9	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		89.6	86.7	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		37.7	40.2	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		37.5	41.0	----	----	----
pH	----	E108/WP	0.10	pH units		7.53	7.40	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		68.7	66.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.6	1.6	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0106	0.101	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.47	0.52	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0791	0.0165	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0805	0.0177	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0014	0.0012	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0204	0.0221	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		5.76	0.77	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	SW-GL	----	----	----
					Client sampling date / time	24-Jan-2024 12:25	24-Jan-2024 13:20	----	----	----
						WP2401958-001	WP2401958-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.6	12.7	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0498	0.0471	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00032	0.000060	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00853	0.00197	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00808	0.0105	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000035	0.00000078	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		Not Detected	0.0000012	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0076	0.0055	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000029	0.0000212	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.8	11.9	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.0000063	0.0000064	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00024	0.00030	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00024	0.00030	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000077	0.00035	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00156	0.00059	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.074	0.558	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000037	0.000062	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0016	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.55	2.74	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00408	0.118	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000180	0.000121	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00133	0.00056	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.012	0.022	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.06	0.872	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00182	0.00163	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	SW-GL	----	----	----
					Client sampling date / time	24-Jan-2024 12:25	24-Jan-2024 13:20	----	----	----
						WP2401958-001	WP2401958-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000101	0.000073	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.71	3.76	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000024	0.0000060	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.62	1.83	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0289	0.0271	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.28	0.34	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000017	0.000019	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	0.000015	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00212	0.00182	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000025	0.000016	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000085	0.000058	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00035	0.00033	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0025	0.0040	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.000095	0.000061	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0063	0.0241	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00032	0.000059	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00833	0.00174	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00729	0.00941	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000075	0.0000083	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0057	0.0046	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000030	0.0000038	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.8	11.7	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000029	0.0000050	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00011	0.00017	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00011	0.00017	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000044	0.00031	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-REF	SW-GL	----	----	----
					Client sampling date / time	24-Jan-2024 12:25	24-Jan-2024 13:20	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401958-001	WP2401958-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00136	0.00029	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.022	0.437	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000013	0.000035	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0010	0.00084	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.60	2.68	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00138	0.108	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000170	0.000123	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00121	0.00028	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.0092	0.0059	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.992	0.766	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00160	0.00169	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000106	0.000087	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.47	3.60	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.56	1.74	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0290	0.0269	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.14	0.53	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000021	0.0000030	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000010	0.000024	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00016	0.00082	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000023	Not Detected	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000078	0.000050	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00023	0.00018	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0014	0.0031	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.000093	0.000072	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-REF	SW-GL	----	----	----
					Client sampling date / time	24-Jan-2024 12:25	24-Jan-2024 13:20	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2401958-001	WP2401958-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2401958**	Page	: 1 of 15
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 26-Jan-2024 10:11
PO	: PPR-022-3	Issue Date	: 01-Feb-2024 13:08
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	24-Jan-2024	29-Jan-2024	28 days	5 days	✓	29-Jan-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	24-Jan-2024	29-Jan-2024	28 days	5 days	✓	29-Jan-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-REF	E235.Cl-L	24-Jan-2024	26-Jan-2024	28 days	2 days	✓	26-Jan-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL	E235.Cl-L	24-Jan-2024	26-Jan-2024	28 days	2 days	✓	26-Jan-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-REF	E235.NO3-L	24-Jan-2024	26-Jan-2024	3 days	2 days	✓	26-Jan-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL	E235.NO3-L	24-Jan-2024	26-Jan-2024	3 days	2 days	✓	26-Jan-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-REF	E235.NO2-L	24-Jan-2024	26-Jan-2024	3 days	2 days	✓	26-Jan-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL	E235.NO2-L	24-Jan-2024	26-Jan-2024	3 days	2 days	✓	26-Jan-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE CR-REF	E235.SO4	24-Jan-2024	26-Jan-2024	28 days	2 days	✓	26-Jan-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL	E235.SO4	24-Jan-2024	26-Jan-2024	28 days	2 days	✓	26-Jan-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	24-Jan-2024	26-Jan-2024	28 days	2 days	✓	29-Jan-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	24-Jan-2024	26-Jan-2024	28 days	2 days	✓	29-Jan-2024	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E339-L	24-Jan-2024	30-Jan-2024	14 days	6 days	✓	30-Jan-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E339-L	24-Jan-2024	30-Jan-2024	14 days	6 days	✓	30-Jan-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E333-L	24-Jan-2024	30-Jan-2024	14 days	6 days	✓	30-Jan-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E333-L	24-Jan-2024	30-Jan-2024	14 days	6 days	✓	30-Jan-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	24-Jan-2024	30-Jan-2024	14 days	6 days	✓	30-Jan-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	24-Jan-2024	30-Jan-2024	14 days	6 days	✓	30-Jan-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	24-Jan-2024	31-Jan-2024	180 days	7 days	✓	31-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	24-Jan-2024	31-Jan-2024	180 days	7 days	✓	31-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-REF	E509	24-Jan-2024	30-Jan-2024	28 days	6 days	✓	30-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	24-Jan-2024	30-Jan-2024	28 days	6 days	✓	30-Jan-2024	28 days	0 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-REF	E421	24-Jan-2024	31-Jan-2024	180 days	7 days	✓	31-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL	E421	24-Jan-2024	31-Jan-2024	180 days	7 days	✓	31-Jan-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.P-L	24-Jan-2024	31-Jan-2024	180 days	7 days	✓	31-Jan-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	24-Jan-2024	31-Jan-2024	180 days	7 days	✓	31-Jan-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) CR-REF	EF001	24-Jan-2024	----	----	----		01-Feb-2024	----	8 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL	EF001	24-Jan-2024	----	----	----		01-Feb-2024	----	8 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-REF	E358-L	24-Jan-2024	29-Jan-2024	28 days	5 days	✓	29-Jan-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	24-Jan-2024	29-Jan-2024	28 days	5 days	✓	29-Jan-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	24-Jan-2024	30-Jan-2024	14 days	6 days	✓	30-Jan-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	24-Jan-2024	30-Jan-2024	14 days	6 days	✓	30-Jan-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE CR-REF	E290	24-Jan-2024	29-Jan-2024	14 days	5 days	✓	29-Jan-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL	E290	24-Jan-2024	29-Jan-2024	14 days	5 days	✓	29-Jan-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE CR-REF	E100	24-Jan-2024	29-Jan-2024	28 days	5 days	✓	29-Jan-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL	E100	24-Jan-2024	29-Jan-2024	28 days	5 days	✓	29-Jan-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE SW-GL	E108	24-Jan-2024	29-Jan-2024	0.25 hrs	116 hrs	× EHTR-FM	29-Jan-2024	0.25 hrs	116 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-REF	E108	24-Jan-2024	29-Jan-2024	0.25 hrs	117 hrs	× EHTR-FM	29-Jan-2024	0.25 hrs	117 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-REF	E162-L	24-Jan-2024	----	----	----		29-Jan-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL	E162-L	24-Jan-2024	----	----	----		29-Jan-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	24-Jan-2024	----	----	----		29-Jan-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	24-Jan-2024	----	----	----		29-Jan-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	24-Jan-2024	30-Jan-2024	180 days	6 days	✓	30-Jan-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	24-Jan-2024	30-Jan-2024	180 days	6 days	✓	30-Jan-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	24-Jan-2024	30-Jan-2024	28 days	6 days	✓	30-Jan-2024	28 days	0 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	24-Jan-2024	30-Jan-2024	28 days	6 days	✓	30-Jan-2024	28 days	0 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	24-Jan-2024	30-Jan-2024	180 days	6 days	✓	30-Jan-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	24-Jan-2024	30-Jan-2024	180 days	6 days	✓	30-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	24-Jan-2024	30-Jan-2024	180 days	6 days	✓	30-Jan-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	24-Jan-2024	30-Jan-2024	180 days	6 days	✓	30-Jan-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1316841	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1315607	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1315890	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1314015	0	4	0.0	5.0	×
Conductivity in Water	E100	1315608	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1318240	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1317091	1	2	50.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1318242	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1315578	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1318241	1	12	8.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1317462	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1314013	0	4	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	1314014	0	4	0.0	5.0	×
pH by Meter	E108	1315606	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1314010	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1315470	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1316980	0	2	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1317460	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1317089	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1316979	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1315492	1	15	6.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1316981	0	6	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1315469	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1317461	1	7	14.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1316841	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1315607	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1315890	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1314015	1	4	25.0	5.0	✓
Conductivity in Water	E100	1315608	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1318240	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1317091	1	2	50.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1318242	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1315578	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1318241	1	12	8.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1317462	1	7	14.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1314013	1	4	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1314014	1	4	25.0	5.0	✓
pH by Meter	E108	1315606	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1314010	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1315470	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1316980	1	2	50.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1317460	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1317089	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1316979	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1315492	1	15	6.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1316981	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1315469	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1317461	1	7	14.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1316841	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1315607	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1315890	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1314015	1	4	25.0	5.0	✓
Conductivity in Water	E100	1315608	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1318240	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1317091	1	2	50.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1318242	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1315578	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1318241	1	12	8.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1317462	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1314013	1	4	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1314014	1	4	25.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1314010	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1315470	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1316980	1	2	50.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1317460	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1317089	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1316979	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1315492	1	15	6.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1316981	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1315469	1	9	11.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1317461	1	7	14.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1315890	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1314015	0	4	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1318240	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1317091	1	2	50.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1318242	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1315578	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1318241	1	12	8.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1317462	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1314013	0	4	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1314014	0	4	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1314010	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1316980	0	2	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1317460	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1317089	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1316979	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1315492	1	15	6.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1316981	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1317461	1	7	14.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2401958**	Page	: 1 of 18
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 26-Jan-2024 10:11
PO	: PPR-022-3	Date Analysis Commenced	: 26-Jan-2024
C-O-C number	: ----	Issue Date	: 01-Feb-2024 13:08
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1315469)											
WP2401958-001	CR-REF	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.6	1.2	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 1315470)											
WP2401938-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	1420	1440	1.29%	20%	----
Physical Tests (QC Lot: 1315606)											
WP2401955-001	Anonymous	pH	----	E108	0.10	pH units	7.88	7.86	0.254%	4%	----
Physical Tests (QC Lot: 1315607)											
WP2401955-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	306	306	0.196%	20%	----
Physical Tests (QC Lot: 1315608)											
WP2401955-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	631	631	0.00%	10%	----
Physical Tests (QC Lot: 1316841)											
WP2401958-001	CR-REF	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.9	2.6	0.4	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1314010)											
WP2401942-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	53.8	53.9	0.181%	20%	----
Anions and Nutrients (QC Lot: 1315492)											
WP2401874-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	7.89	7.90	0.0789%	20%	----
Anions and Nutrients (QC Lot: 1315890)											
WP2401875-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0230	0.0270	0.0039	Diff <2x LOR	----
Cyanides (QC Lot: 1317460)											
WP2401958-001	CR-REF	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1317461)											
WP2401958-001	CR-REF	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1317462)											
WP2401958-001	CR-REF	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1315578)											
WP2401942-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.55	1.55	0.002	Diff <2x LOR	----
Total Metals (QC Lot: 1316979)											
WP2401947-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00039	0.00037	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1316979) - continued											
WP2401947-001	Anonymous	Barium, total	7440-39-3	E420	0.00010	mg/L	0.0488	0.0493	1.11%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.052	0.052	0.0005	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	97.5	96.4	1.08%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00298	0.00292	0.00006	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.015	0.015	0.0001	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0427	0.0426	0.170%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	39.4	39.2	0.372%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.320	0.315	1.81%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000790	0.000772	2.26%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00064	0.00074	0.00010	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	4.04	3.97	1.73%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00087	0.00085	0.00002	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000793	0.000732	7.99%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	12.7	12.1	5.42%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	27.8	28.4	1.95%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.281	0.267	5.06%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	66.8	66.0	1.08%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00222	0.00230	3.18%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1316979) - continued											
WP2401947-001	Anonymous	Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0136	0.0136	0.00004	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1317089)											
WP2401942-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1317091)											
WP2401958-001	CR-REF	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1318240)											
WP2401958-001	CR-REF	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00011	0.00012	0.000004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1318241)											
WP2401958-001	CR-REF	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1318242)											
WP2401958-001	CR-REF	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0063	0.0059	0.0003	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00032	0.00032	0.0000008	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00833	0.00836	0.366%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00729	0.00711	2.51%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	10.8	10.7	0.585%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00136	0.00135	0.000007	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.022	0.023	0.0003	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0010	0.0010	0.00003	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.60	2.60	0.0274%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00138	0.00140	1.62%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000170	0.000182	0.000012	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00121	0.00122	0.00002	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.992	0.998	0.589%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00160	0.00153	0.00006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1318242) - continued											
WP2401958-001	CR-REF	Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000106	0.000090	0.000016	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.47	1.48	0.899%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.56	2.51	2.09%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0290	0.0292	0.889%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.14	2.15	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000078	0.000079	0.0000006	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0014	0.0014	0.00002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1315469)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1315470)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1315607)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1315608)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1316841)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1314010)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1314013)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1314014)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1314015)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1315492)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1315890)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1317460)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1317461)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1317462)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1315578)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1316979)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1316979) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1316979) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1316980)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1316981)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1317089)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1317091)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1318240)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1318241)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1318242)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1318242) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1315469)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	91.8	85.0	115	----
Physical Tests (QCLot: 1315470)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.3	85.0	115	----
Physical Tests (QCLot: 1315606)									
pH	----	E108	----	pH units	7 pH units	99.8	98.0	102	----
Physical Tests (QCLot: 1315607)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1315608)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	96.6	90.0	110	----
Physical Tests (QCLot: 1316841)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	112	85.0	115	----
Anions and Nutrients (QCLot: 1314010)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.0	90.0	110	----
Anions and Nutrients (QCLot: 1314013)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1314014)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1314015)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1315492)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.8	80.0	120	----
Anions and Nutrients (QCLot: 1315890)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	104	85.0	115	----
Cyanides (QCLot: 1317460)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	91.0	80.0	120	----
Cyanides (QCLot: 1317461)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	105	80.0	120	----
Cyanides (QCLot: 1317462)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1315578)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100	80.0	120	----
Total Metals (QCLot: 1316979)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	98.4	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	93.8	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	95.6	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.4	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.3	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	98.9	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	96.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	93.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	92.9	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	99.8	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.2	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.6	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.7	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.1	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	96.8	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.8	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.3	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.7	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1316979) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.1	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	97.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.7	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Total Metals (QCLot: 1316980)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Total Metals (QCLot: 1316981)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Total Metals (QCLot: 1317089)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	105	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 1318240)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	95.8	80.0	120	----
Dissolved Metals (QCLot: 1318242)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	92.0	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	95.5	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	92.6	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	94.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	96.2	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.5	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.3	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	98.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	93.2	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1318242) - continued									
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	95.8	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.3	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	103	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	98.1	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.5	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.3	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.5	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.5	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1314010)										
WP2401942-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.8 mg/L	100 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 1315492)										
WP2401875-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.236 mg/L	0.25 mg/L	94.6	70.0	130	----
Anions and Nutrients (QCLot: 1315890)										
WP2401875-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0969 mg/L	0.1 mg/L	96.9	75.0	125	----
Cyanides (QCLot: 1317460)										
WP2401958-001	CR-REF	Cyanide, strong acid dissociable (Total)	----	E333-L	0.218 mg/L	0.25 mg/L	87.4	75.0	125	----
Cyanides (QCLot: 1317461)										
WP2401958-001	CR-REF	Cyanide, weak acid dissociable	----	E336-L	0.128 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1317462)										
WP2401958-001	CR-REF	Cyanide, free	----	E339-L	0.126 mg/L	0.125 mg/L	101	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1315578)										
WP2401942-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.64 mg/L	5 mg/L	92.9	70.0	130	----
Total Metals (QCLot: 1316979)										
WP2401947-001	Anonymous	Aluminum, total	7429-90-5	E420	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00989 mg/L	0.01 mg/L	98.9	70.0	130	----
		Boron, total	7440-42-8	E420	0.097 mg/L	0.1 mg/L	97.1	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00421 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, total	7440-50-8	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Iron, total	7439-89-6	E420	2.09 mg/L	2 mg/L	105	70.0	130	----
		Lead, total	7439-92-1	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1316979) - continued										
WP2401947-001	Anonymous	Lithium, total	7439-93-2	E420	0.0991 mg/L	0.1 mg/L	99.1	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0399 mg/L	0.04 mg/L	99.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.2 mg/L	10 mg/L	112	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00400 mg/L	0.004 mg/L	100.0	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0219 mg/L	0.02 mg/L	110	70.0	130	----
		Tin, total	7440-31-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0402 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00436 mg/L	0.004 mg/L	109	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, total	7440-66-6	E420	0.391 mg/L	0.4 mg/L	97.7	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Total Metals (QCLot: 1317089)										
WP2401945-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000988 mg/L	0.0001 mg/L	98.8	70.0	130	----
Dissolved Metals (QCLot: 1317091)										
WP2401958-002	SW-GL	Mercury, dissolved	7439-97-6	E509	0.000102 mg/L	0.0001 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1318240)										
WP2401958-001	CR-REF	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0371 mg/L	0.04 mg/L	92.7	70.0	130	----
Dissolved Metals (QCLot: 1318241)										
WP2401958-001	CR-REF	Phosphorus, dissolved	7723-14-0	E421.P-L	9.32 mg/L	10 mg/L	93.2	70.0	130	----
Dissolved Metals (QCLot: 1318242)										
WP2401958-001	CR-REF	Aluminum, dissolved	7429-90-5	E421	0.180 mg/L	0.2 mg/L	90.2	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1318242) - continued										
WP2401958-001	CR-REF	Antimony, dissolved	7440-36-0	E421	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0193 mg/L	0.02 mg/L	96.3	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0370 mg/L	0.04 mg/L	92.4	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00905 mg/L	0.01 mg/L	90.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.082 mg/L	0.1 mg/L	82.3	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00966 mg/L	0.01 mg/L	96.6	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0371 mg/L	0.04 mg/L	92.7	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.91 mg/L	2 mg/L	95.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0903 mg/L	0.1 mg/L	90.3	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0185 mg/L	0.02 mg/L	92.4	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0185 mg/L	0.02 mg/L	92.6	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0379 mg/L	0.04 mg/L	94.8	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.32 mg/L	10 mg/L	93.2	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.93 mg/L	4 mg/L	98.3	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.37 mg/L	10 mg/L	83.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00382 mg/L	0.004 mg/L	95.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.9 mg/L	20 mg/L	99.3	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0388 mg/L	0.04 mg/L	96.9	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00378 mg/L	0.004 mg/L	94.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0183 mg/L	0.02 mg/L	91.7	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0358 mg/L	0.04 mg/L	89.6	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0182 mg/L	0.02 mg/L	90.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00379 mg/L	0.004 mg/L	94.8	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1318242) - continued										
WP2401958-001	CR-REF	Vanadium, dissolved	7440-62-2	E421	0.0952 mg/L	0.1 mg/L	95.2	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.382 mg/L	0.4 mg/L	95.6	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0377 mg/L	0.04 mg/L	94.3	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
	CR-REF	24/01/24	12:25	water	9	x			7.39	1.5	55.5
	SW-GL	24/01/24	13:20	water	9	x			7.41	0.7	52.2

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHI
Released by: Jacob McFee	Time: 16:00		Received by:	Date: JAN 26 2024	Time: 1011	Received b

Jan 24/2024

9.0

Environmental Division
Winnipeg
Work Order Reference
WP2401958

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2402	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (ms/cm)
	CR-REF	24/01/24	12:25	water	9	x			7.39	1.5	55.5
	SW-GL	24/01/24	13:20	water	9	x			7.41	0.7	52.2

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHI
Released by:		Time:	Received by:	Date:	Time:	Received b
Jacob McFee		16:00		JAN 26 2024	1011	

Jan 24/2024

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Environmental Division
Winnipeg
Work Order Reference
WP2401958

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2402956**	Page	: 1 of 13
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Feb-2024 08:50
PO	: PPR-022-3	Date Analysis Commenced	: 07-Feb-2024
C-O-C number	: ----	Issue Date	: 15-Feb-2024 09:11
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	Position	Laboratory Department
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
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Jenna Friesen	Login	Administration, Winnipeg, Manitoba
Jenna Friesen	Login	Administration, Winnipeg, Manitoba
Jenna Friesen	Login	Administration, Winnipeg, Manitoba
Jenna Friesen	Login	Administration, Winnipeg, Manitoba
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Lee McTavish		Administration, Winnipeg, Manitoba
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Lee McTavish		Inorganics, Winnipeg, Manitoba
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Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
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Lee McTavish		Metals, Winnipeg, Manitoba
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Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
CNP	*Cyanide test sample appears to have been preserved, but pH was <10 at time of testing. Results may be biased low, particularly for Free CN species.*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	SW-TR	SW-01	SW-04	DUP-01
					Client sampling date / time	05-Feb-2024 10:16	05-Feb-2024 11:36	05-Feb-2024 12:45	05-Feb-2024 13:25	05-Feb-2024 10:20
						WP2402956-001	WP2402956-002	WP2402956-003	WP2402956-004	WP2402956-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.83	4.82	6.16	7.00	6.83
Temperature, field	----	EF001/WP	0.10	°C		1.70	0.10	1.60	1.70	1.70
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		7.7	55.5	10.0	4.1	6.5
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		70.1	Not Detected	17.9	54.5	71.3
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		70.1	Not Detected	17.9	54.5	71.3
Conductivity	----	E100/WP	1.0	µS/cm		150	63.4	57.1	119	152
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		71.0	31.6	31.4	56.3	72.6
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		80.1	33.7	33.0	61.4	80.9
pH	----	E108/WP	0.10	pH units		7.17	4.76	6.46	7.30	7.23
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		95.7	216	89.2	75.0	99.3
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		4.8	3.1	5.7	11.4	4.6
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0407	0.0886	0.0216	0.477	0.0643
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		----	----	----	0.89	0.89
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.79	0.53	0.41	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		----	----	----	0.0722	0.0723
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0739	0.0137	0.0538	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0750	0.0137	0.0538	0.0732	0.0723
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		----	----	----	0.0010	<0.0010
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0011	Not Detected	Not Detected	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0204	0.0530	0.0373	0.0263	0.0213

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	SW-TR	SW-01	SW-04	DUP-01
					Client sampling date / time	05-Feb-2024 10:16	05-Feb-2024 11:36	05-Feb-2024 12:45	05-Feb-2024 13:25	05-Feb-2024 10:20
						WP2402956-001	WP2402956-002	WP2402956-003	WP2402956-004	WP2402956-005
						Result	Result	Result	Result	Result
Anions and Nutrients										
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.30	<0.30	0.58	0.90	1.64
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010 CNP
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0163	0.0057	<0.0010	0.0053 CNP
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0012	0.0010	<0.0010	<0.0010 CNP
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		17.9	114	44.9	18.2	18.4
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.240	1.58	0.400	0.457	0.240
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000077	0.00040	0.00039	0.000085	0.00017
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00175	0.0177	0.00588	0.00181	0.00173
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0163	0.0139	0.00973	0.0163	0.0163
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000016	0.000062	0.000021	0.000021	0.000012
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000027	0.000020	0.0000065	0.0000046	0.0000036
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.010	0.010	0.0071	0.0072	0.0079
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000045	0.0000474	0.0000135	0.0000086	0.0000054
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		21.6	8.97	8.86	16.5	22.2
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000024	0.000032	0.000012	0.000055	0.000021
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00054	0.00221	0.00101	0.00088	0.00052
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00054	0.00221	0.00101	0.00088	0.00052
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00021	0.00123	0.00069	0.00031	0.00021
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00093	0.00192	0.00106	0.00129	0.00117
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.587	3.82	1.18	0.758	0.571
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000132	0.00103	0.000212	0.000251	0.000137
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0042	0.0041	0.0019	0.0032	0.0042
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		6.36	2.74	2.64	4.90	6.19
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0518	0.0479	0.116	0.0448	0.0505
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000066	<0.0000050	<0.0000050 RRV	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000456	0.000150	0.000096	0.000272	0.000453
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00087	0.00248	0.00105	0.00100	0.00097

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	SW-TR	SW-01	SW-04	DUP-01
					Client sampling date / time	05-Feb-2024 10:16	05-Feb-2024 11:36	05-Feb-2024 12:45	05-Feb-2024 13:25	05-Feb-2024 10:20
						WP2402956-001	WP2402956-002	WP2402956-003	WP2402956-004	WP2402956-005
						Result	Result	Result	Result	Result
Total Metals										
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.030	0.062	0.043	0.036	0.033
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.030	0.062	0.043	0.036	0.033
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.76	0.188	0.782	1.46	1.75
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00222	0.00054	0.00196	0.00312	0.00235
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000108	0.000377	0.000247	0.000109	0.000122
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		4.57	5.60	3.30	4.32	4.64
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000074	0.0000083	0.0000066	0.0000057	0.0000087
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.31	2.92	1.88	2.47	2.80
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0466	0.0389	0.0264	0.0387	0.0443
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.02	1.47	0.89	0.78	0.86
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		0.000029	0.000021	0.000024	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000042	0.000013	0.0000066	0.0000075	0.0000040
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000045	0.00031	0.00011	0.00010	0.000048
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	0.000062	0.00013	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00983	0.0236	0.00525	0.0215	0.00907
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000027	0.000011	Not Detected	0.000036	0.000028
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000279	0.000168	0.000073	0.000199	0.000286
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00098	0.00177	0.00083	0.00148	0.00094
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0028	0.0200	0.0141	0.0026	0.0021
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00027	0.00073	0.00043	0.00034	0.00025
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0365	1.48	0.343	0.0317	0.0347
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000095	0.00034	0.00016	0.000065	0.000056
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00140	0.0164	0.00531	0.00145	0.00147
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0136	0.0125	0.00834	0.0117	0.0135
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000014	0.000054	0.000016	0.0000096	0.0000079
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		0.0000088	0.000017	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0066	0.0086	0.0054	0.0070	0.0068
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000040	0.0000337	0.0000074	0.0000022	0.0000034
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		18.4	8.28	8.30	15.0	19.0

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-15	SW-TR	SW-01	SW-04	DUP-01
					Client sampling date / time	05-Feb-2024 10:16	05-Feb-2024 11:36	05-Feb-2024 12:45	05-Feb-2024 13:25	05-Feb-2024 10:20
						WP2402956-001	WP2402956-002	WP2402956-003	WP2402956-004	WP2402956-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000027	0.000024	0.0000071	0.0000020	0.0000022
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00031	0.00202	0.00072	0.00022	0.00023
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00031	0.00202	0.00072	0.00022	0.00023
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00014	0.00122	0.00065	0.00012	0.00013
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00078	0.00102	0.00062	0.00070	0.00074
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.296	3.70	0.998	0.240	0.279
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000059	0.000900	0.000120	0.000060	0.000056
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0025	0.0030	0.0015	0.0018	0.0028
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		6.09	2.66	2.60	4.58	6.11
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0444	0.0451	0.111	0.0342	0.0441
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000115 RRV	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000441	0.000118	0.000089	0.000237	0.000419
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00067	0.00249	0.00090	0.00053	0.00056
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.040	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.012	0.040	0.016	0.014	0.018
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.54	0.195	0.568	1.24	1.55
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00185	0.00043	0.00188	0.00203	0.00183
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000122	0.000383	0.000144	0.000072	0.000115
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.90	5.19	3.09	3.27	3.81
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000020	0.0000029	Not Detected	0.0000012	0.0000017
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.64	2.58	1.71	2.27	2.66
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0398	0.0346	0.0229	0.0331	0.0404
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.53	0.78	0.34	0.28	0.40
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		0.00027	0.000059	0.000040	0.000024	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000021	0.000012	0.0000065	0.0000017	0.0000021
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000041	0.00035	0.00013	0.000035	0.000035
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000067	0.000038	Not Detected	Not Detected	0.000017
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00121	0.0214	0.00386	0.00114	0.00116
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000036	0.000010	Not Detected	0.000018	0.000018
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000270	0.000162	0.000076	0.000180	0.000271

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-15	SW-TR	SW-01	SW-04	DUP-01
					Client sampling date / time	05-Feb-2024 10:16	05-Feb-2024 11:36	05-Feb-2024 12:45	05-Feb-2024 13:25	05-Feb-2024 10:20
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2402956-001	WP2402956-002	WP2402956-003	WP2402956-004	WP2402956-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00041	0.00152	0.00053	0.00046	0.00040
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0014	0.0168	0.0033	0.00076	0.0015
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00020	0.00084	0.00044	0.00020	0.00020
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FIELD BLANK -01	TRAVEL BLANK	----	----	----
					Client sampling date / time	05-Feb-2024 10:30	05-Feb-2024 00:00	----	----	----
						WP2402956-006	WP2402956-007	--------	--------	--------
						Result	Result	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		Not Detected	Not Detected	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		Not Detected	Not Detected	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		<0.50	<0.50	----	----	----
pH	----	E108/WP	0.10	pH units		5.41	5.27	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		<3.0	<3.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	0.0150	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		Not Detected	Not Detected	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		<0.0020	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	<0.30	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		0.56	0.77	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0018	0.0013	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FIELD BLANK -01	TRAVEL BLANK	----	----	----
					Client sampling date / time	05-Feb-2024 10:30	05-Feb-2024 00:00	----	----	----
						WP2402956-006	WP2402956-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000037	0.000011	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.000012	0.000018	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.000042	Not Detected	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.00000086	0.00000088	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		Not Detected	Not Detected	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000011	Not Detected	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		0.014	0.0065	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00018	Not Detected	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.0024	Not Detected	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000024	Not Detected	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.00055	0.00047	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		0.0025	0.0014	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.000046	0.000010	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000020	Not Detected	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.013	0.017	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.0054	0.0075	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.0000069	Not Detected	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.028	0.034	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000014	Not Detected	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		0.015	0.012	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.000020	Not Detected	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)									
				Client sample ID	FIELD BLANK -01	TRAVEL BLANK	----	----	----
				Client sampling date / time	05-Feb-2024 10:30	05-Feb-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2402956-006	WP2402956-007	--------	--------	--------
					Result	Result	----	----	----
Total Metals									
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L	0.22	0.16	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L	Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L	Not Detected	Not Detected	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L	Not Detected	Not Detected	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L	0.00037	Not Detected	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L	Not Detected	Not Detected	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L	Not Detected	Not Detected	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L	Not Detected	Not Detected	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L	0.00010	0.00010	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L	0.00075	Not Detected	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L	Not Detected	Not Detected	----	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L	0.00043	0.00020	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L	Not Detected	Not Detected	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L	Not Detected	Not Detected	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L	0.000052	Not Detected	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L	Not Detected	Not Detected	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L	Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L	Not Detected	Not Detected	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L	0.0000011	Not Detected	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L	0.019	Not Detected	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L	Not Detected	Not Detected	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L	<0.00010	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L	Not Detected	Not Detected	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L	0.0000012	Not Detected	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L	0.000031	Not Detected	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L	Not Detected	Not Detected	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L	Not Detected	Not Detected	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L	0.00020	0.00015	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L	Not Detected	Not Detected	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FIELD BLANK -01	TRAVEL BLANK	----	----	----
					Client sampling date / time	05-Feb-2024 10:30	05-Feb-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2402956-006	WP2402956-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	Not Detected	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.0069	Not Detected	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		Not Detected	Not Detected	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000014	Not Detected	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		Not Detected	Not Detected	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		Not Detected	Not Detected	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		Not Detected	Not Detected	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0012	0.00032	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		Not Detected	Not Detected	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2402956**	Page	: 1 of 29
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Feb-2024 08:50
PO	: PPR-022-3	Issue Date	: 15-Feb-2024 09:11
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-01	E298	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) FIELD BLANK -01	E298	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-15	E298	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) TRAVEL BLANK	E298	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DUP-01	E235.Cl-L	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE FIELD BLANK -01	E235.Cl-L	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-01	E235.Cl-L	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-04	E235.Cl-L	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-15	E235.Cl-L	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-TR	E235.Cl-L	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE TRAVEL BLANK	E235.Cl-L	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DUP-01	E235.NO3-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE FIELD BLANK -01	E235.NO3-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-01	E235.NO3-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-04	E235.NO3-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-15	E235.NO3-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-TR	E235.NO3-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE TRAVEL BLANK	E235.NO3-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DUP-01	E235.NO2-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE FIELD BLANK -01	E235.NO2-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-01	E235.NO2-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-04	E235.NO2-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-15	E235.NO2-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO2-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
TRAVEL BLANK	E235.NO2-L	05-Feb-2024	07-Feb-2024	3 days	2 days	✓	07-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
DUP-01	E235.SO4	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
FIELD BLANK -01	E235.SO4	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-01	E235.SO4	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-04	E235.SO4	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-15	E235.SO4	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-TR	E235.SO4	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
TRAVEL BLANK	E235.SO4	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-01	E372-U	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
FIELD BLANK -01	E372-U	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-01	E372-U	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-04	E372-U	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-15	E372-U	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TR	E372-U	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
TRAVEL BLANK	E372-U	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E339-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD BLANK -01	E339-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E339-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E339-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD BLANK -01	E333-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E333-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-15	E333-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TR	E333-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) TRAVEL BLANK	E333-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-01	E336-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) FIELD BLANK -01	E336-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E336-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E336-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-15	E336-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E336-L	05-Feb-2024	13-Feb-2024	14 days	8 days	✓	13-Feb-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.Cr-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
FIELD BLANK -01	E421.Cr-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-15	E421.Cr-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.Cr-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-01	E509	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) FIELD BLANK -01	E509	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-15	E509	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) TRAVEL BLANK	E509	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-01	E421	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) FIELD BLANK -01	E421	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-01	E421	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-04	E421	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-15	E421	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TR	E421	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.P-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
FIELD BLANK -01	E421.P-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-01	E421.P-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-15	E421.P-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.P-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.P-L	05-Feb-2024	12-Feb-2024	180 days	7 days	✓	12-Feb-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-01	EF001	05-Feb-2024	----	----	----		07-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
FIELD BLANK -01	EF001	05-Feb-2024	----	----	----		07-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	05-Feb-2024	----	----	----		07-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	05-Feb-2024	----	----	----		07-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-15	EF001	05-Feb-2024	----	----	----		07-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	05-Feb-2024	----	----	----		07-Feb-2024	----	2 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
TRAVEL BLANK	EF001	05-Feb-2024	----	----	----		07-Feb-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-01	E358-L	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
FIELD BLANK -01	E358-L	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-15	E358-L	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
TRAVEL BLANK	E358-L	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-01	E283	05-Feb-2024	12-Feb-2024	14 days	7 days	✓	13-Feb-2024	14 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE FIELD BLANK -01	E283	05-Feb-2024	12-Feb-2024	14 days	7 days	✓	13-Feb-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	05-Feb-2024	12-Feb-2024	14 days	7 days	✓	13-Feb-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-04	E283	05-Feb-2024	12-Feb-2024	14 days	7 days	✓	13-Feb-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-15	E283	05-Feb-2024	12-Feb-2024	14 days	7 days	✓	13-Feb-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	05-Feb-2024	12-Feb-2024	14 days	7 days	✓	13-Feb-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE TRAVEL BLANK	E283	05-Feb-2024	12-Feb-2024	14 days	7 days	✓	13-Feb-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE FIELD BLANK -01	E290	05-Feb-2024	07-Feb-2024	14 days	2 days	✓	07-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TR	E290	05-Feb-2024	07-Feb-2024	14 days	2 days	✓	07-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DUP-01	E290	05-Feb-2024	08-Feb-2024	14 days	3 days	✓	08-Feb-2024	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-01	E290	05-Feb-2024	08-Feb-2024	14 days	3 days	✓	08-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-04	E290	05-Feb-2024	08-Feb-2024	14 days	3 days	✓	08-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-15	E290	05-Feb-2024	08-Feb-2024	14 days	3 days	✓	08-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE TRAVEL BLANK	E290	05-Feb-2024	08-Feb-2024	14 days	3 days	✓	08-Feb-2024	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE FIELD BLANK -01	E100	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-TR	E100	05-Feb-2024	07-Feb-2024	28 days	2 days	✓	07-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE DUP-01	E100	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-01	E100	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-04	E100	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE SW-15	E100	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE TRAVEL BLANK	E100	05-Feb-2024	08-Feb-2024	28 days	3 days	✓	08-Feb-2024	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE SW-TR	E108	05-Feb-2024	07-Feb-2024	0.25 hrs	45 hrs	× EHTR-FM	07-Feb-2024	0.25 hrs	45 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE FIELD BLANK -01	E108	05-Feb-2024	07-Feb-2024	0.25 hrs	46 hrs	× EHTR-FM	07-Feb-2024	0.25 hrs	46 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE TRAVEL BLANK	E108	05-Feb-2024	08-Feb-2024	0.25 hrs	66 hrs	× EHTR-FM	08-Feb-2024	0.25 hrs	66 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-04	E108	05-Feb-2024	08-Feb-2024	0.25 hrs	67 hrs	× EHTR-FM	08-Feb-2024	0.25 hrs	67 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-01	E108	05-Feb-2024	08-Feb-2024	0.25 hrs	68 hrs	× EHTR-FM	08-Feb-2024	0.25 hrs	68 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DUP-01	E108	05-Feb-2024	08-Feb-2024	0.25 hrs	70 hrs	× EHTR-FM	08-Feb-2024	0.25 hrs	70 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-15	E108	05-Feb-2024	08-Feb-2024	0.25 hrs	70 hrs	× EHTR-FM	08-Feb-2024	0.25 hrs	70 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DUP-01	E162-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE FIELD BLANK -01	E162-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-01	E162-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-04	E162-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-15	E162-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TR	E162-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE TRAVEL BLANK	E162-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-01	E160-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] FIELD BLANK -01	E160-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-15	E160-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] TRAVEL BLANK	E160-L	05-Feb-2024	----	----	----		08-Feb-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) FIELD BLANK -01	E420.Cr-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-15	E420.Cr-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.Cr-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) FIELD BLANK -01	E508	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-15	E508	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
TRAVEL BLANK	E508	05-Feb-2024	14-Feb-2024	28 days	9 days	✓	14-Feb-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
DUP-01	E420	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
FIELD BLANK -01	E420	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-01	E420	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-04	E420	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-15	E420	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-TR	E420	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
TRAVEL BLANK	E420	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
DUP-01	E420.P-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
FIELD BLANK -01	E420.P-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-01	E420.P-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-04	E420.P-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-15	E420.P-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TR	E420.P-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
TRAVEL BLANK	E420.P-L	05-Feb-2024	09-Feb-2024	180 days	4 days	✓	09-Feb-2024	180 days	4 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1330335	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1326268	2	21	9.5	5.0	✓
Ammonia by Fluorescence	E298	1326817	2	25	8.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1326306	2	11	18.1	5.0	✓
Conductivity in Water	E100	1326267	2	21	9.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1329925	0	12	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1332444	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1329924	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1326456	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1329926	0	19	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1331052	1	14	7.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1326303	2	12	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1326304	2	12	16.6	5.0	✓
pH by Meter	E108	1326266	2	36	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1326307	2	11	18.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1326200	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1327678	0	9	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1331053	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1332438	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1327674	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1327106	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1327676	0	12	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1326198	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	1331051	1	19	5.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1330335	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1326268	2	21	9.5	5.0	✓
Ammonia by Fluorescence	E298	1326817	2	25	8.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1326306	2	11	18.1	5.0	✓
Conductivity in Water	E100	1326267	2	21	9.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1329925	1	12	8.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1329924	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1326456	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1329926	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1331052	1	14	7.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1326303	2	12	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1326304	2	12	16.6	5.0	✓
pH by Meter	E108	1326266	2	36	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1326307	2	11	18.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1326200	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1327678	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1331053	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1332438	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1327674	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1327106	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1327676	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1326198	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	1331051	1	19	5.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1330335	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1326268	2	21	9.5	5.0	✓
Ammonia by Fluorescence	E298	1326817	2	25	8.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1326306	2	11	18.1	5.0	✓
Conductivity in Water	E100	1326267	2	21	9.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1329925	1	12	8.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1329924	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1326456	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1329926	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1331052	1	14	7.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1326303	2	12	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1326304	2	12	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1326307	2	11	18.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1326200	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1327678	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1331053	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1332438	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1327674	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1327106	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1327676	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1326198	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	1331051	1	19	5.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1326817	2	25	8.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1326306	2	11	18.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1329925	0	12	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1332444	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1329924	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1326456	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1329926	0	19	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1331052	1	14	7.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1326303	2	12	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1326304	2	12	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1326307	2	11	18.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1327678	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1331053	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1332438	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1327674	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1327106	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1327676	0	12	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1331051	1	19	5.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2402956**	Page	: 1 of 20
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Feb-2024 08:50
PO	: PPR-022-3	Date Analysis Commenced	: 07-Feb-2024
C-O-C number	: ----	Issue Date	: 15-Feb-2024 09:11
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1326198)											
WP2402917-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.2	1.3	0.1	Diff <2x LOR	----
Physical Tests (QC Lot: 1326200)											
WP2402774-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	1520	1540	1.40%	20%	----
Physical Tests (QC Lot: 1326266)											
WP2402918-002	Anonymous	pH	----	E108	0.10	pH units	7.66	7.70	0.521%	4%	----
Physical Tests (QC Lot: 1326267)											
WP2402918-002	Anonymous	Conductivity	----	E100	2.0	µS/cm	419	420	0.238%	10%	----
Physical Tests (QC Lot: 1326268)											
WP2402918-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	184	182	1.09%	20%	----
Physical Tests (QC Lot: 1326328)											
WP2402956-001	SW-15	pH	----	E108	0.10	pH units	7.17	7.19	0.278%	4%	----
Physical Tests (QC Lot: 1326329)											
WP2402956-001	SW-15	Conductivity	----	E100	1.0	µS/cm	150	152	1.72%	10%	----
Physical Tests (QC Lot: 1326330)											
WP2402956-001	SW-15	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	70.1	71.2	1.56%	20%	----
Physical Tests (QC Lot: 1330335)											
WP2402956-001	SW-15	Acidity (as CaCO3)	----	E283	2.0	mg/L	7.7	7.2	0.5	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1326303)											
WP2402918-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0954	0.0944	0.988%	20%	----
Anions and Nutrients (QC Lot: 1326304)											
WP2402918-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0074	0.0076	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1326306)											
WP2402918-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	23.1	23.1	0.221%	20%	----
Anions and Nutrients (QC Lot: 1326307)											
WP2402918-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	161	162	0.438%	20%	----
Anions and Nutrients (QC Lot: 1326331)											
WP2402956-004	SW-04	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.90	0.89	0.006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1326332)											
WP2402956-004	SW-04	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0722	0.0717	0.753%	20%	----
Anions and Nutrients (QC Lot: 1326333)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1326333) - continued											
WP2402956-004	SW-04	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0010	<0.0010	0.00004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1326334)											
WP2402956-004	SW-04	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.89	0.89	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1326817)											
WP2402956-006	FIELD BLANK -01	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1327106)											
WP2402905-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0800	mg/L	22.5	21.6	3.91%	20%	----
Anions and Nutrients (QC Lot: 1331065)											
WP2403307-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0109	0.0080	0.0029	Diff <2x LOR	----
Cyanides (QC Lot: 1331051)											
WP2402956-001	SW-15	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1331052)											
WP2402956-001	SW-15	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1331053)											
WP2402956-001	SW-15	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1326456)											
WP2402918-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	15.6	15.7	0.684%	20%	----
Total Metals (QC Lot: 1327674)											
WP2402835-005	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0298	0.0300	0.0002	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00031	0.00030	0.000008	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00156	0.00158	1.10%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0929	0.0936	0.695%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	0.000271	0.000232	0.000039	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.180	0.184	1.86%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000298	0.0000295	0.0000004	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	65.6	66.5	1.32%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000098	0.000096	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00115	0.00120	0.00005	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00131	0.00132	0.431%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0102	0.0102	0.538%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.091	0.092	0.0007	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000156	0.000151	0.000005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1327674) - continued											
WP2402835-005	Anonymous	Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0676	0.0691	2.27%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	35.0	35.9	2.51%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.169	0.170	0.590%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00390	0.00384	1.35%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00468	0.00469	0.00001	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	18.0	18.5	2.95%	20%	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	172	181	4.87%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0667	0.0668	0.112%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.45	5.52	1.19%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	222	232	4.57%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.346	0.336	2.90%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	87.0	87.4	0.434%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00012	0.00011	0.000003	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00085	0.00082	0.00003	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000713	0.000703	1.40%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00106	0.00108	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0236	0.0245	0.0009	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1332438)											
WP2402063-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1329924)											
WP2402539-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	18.9 µg/L	0.0179	5.24%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00092	0.00094	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00788	0.00787	0.100%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1329924) - continued											
WP2402539-001	Anonymous	Calcium, dissolved	7440-70-2	E421	0.050	mg/L	12.6	13.0	2.99%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000075	0.000073	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00090	0.00093	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.014	0.014	0.0001	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0014	0.0015	0.00003	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.10	4.05	1.33%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00019	0.00018	0.00001	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000169	0.000157	0.000012	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00053	0.00054	0.00001	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.835	0.882	5.41%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00140	0.00136	0.00003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000083	0.000112	0.000029	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.94	1.90	1.69%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.68	2.70	0.538%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0246	0.0256	4.14%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.06	1.06	0.002	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00036	0.00041	0.00005	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000074	0.000081	0.000007	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1332444)											
WP2402956-001	SW-15	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1326198)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1326200)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1326267)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1326268)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1326329)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1326330)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1330335)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1326303)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1326304)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1326306)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1326307)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1326331)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1326332)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1326333)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1326334)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1326817)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1327106)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1331065)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1331051)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1331052)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1331053)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1326456)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1327674)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1327674) - continued						
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1327676)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1327678)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1332438)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1329924)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1329924) - continued						
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1329925)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1329926)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1332444)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1326198)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	97.2	85.0	115	----
Physical Tests (QCLot: 1326200)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.4	85.0	115	----
Physical Tests (QCLot: 1326266)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1326267)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1326268)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1326328)									
pH	----	E108	----	pH units	7 pH units	99.4	98.0	102	----
Physical Tests (QCLot: 1326329)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	99.9	90.0	110	----
Physical Tests (QCLot: 1326330)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1330335)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	112	85.0	115	----
Anions and Nutrients (QCLot: 1326303)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1326304)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1326306)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1326307)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1326331)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.5	90.0	110	----
Anions and Nutrients (QCLot: 1326332)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1326333)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.4	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1326334)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1326817)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1327106)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	90.2	80.0	120	----
Anions and Nutrients (QCLot: 1331065)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.4	85.0	115	----
Cyanides (QCLot: 1331051)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	98.0	80.0	120	----
Cyanides (QCLot: 1331052)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	100	80.0	120	----
Cyanides (QCLot: 1331053)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	94.7	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1326456)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.2	80.0	120	----
Total Metals (QCLot: 1327674)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	105	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	105	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	102	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	112	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	111	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1327674) - continued									
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	112	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	98.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	109	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	98.7	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.9	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.0	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.3	80.0	120	----
Total Metals (QCLot: 1327676)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	112	80.0	120	----
Total Metals (QCLot: 1327678)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Total Metals (QCLot: 1332438)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	98.2	80.0	120	----
Dissolved Metals (QCLot: 1329924)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.9	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.4	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1329924) - continued									
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.7	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	111	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	96.7	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	88.1	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	93.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.1	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.9	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	100	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.8	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	90.7	80.0	120	----
Dissolved Metals (QCLot: 1329925)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1332444) - continued									
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.1	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1326303)										
WP2402918-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.42 mg/L	2.5 mg/L	97.0	75.0	125	----
Anions and Nutrients (QCLot: 1326304)										
WP2402918-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.495 mg/L	0.5 mg/L	98.9	75.0	125	----
Anions and Nutrients (QCLot: 1326306)										
WP2402918-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1326307)										
WP2402918-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	100 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 1326331)										
WP2402956-004	SW-04	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1326332)										
WP2402956-004	SW-04	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1326333)										
WP2402956-004	SW-04	Nitrite (as N)	14797-65-0	E235.NO2-L	0.507 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1326334)										
WP2402956-004	SW-04	Chloride	16887-00-6	E235.Cl-L	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1326817)										
WP2402956-006	FIELD BLANK -01	Ammonia, total (as N)	7664-41-7	E298	0.0997 mg/L	0.1 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1327106)										
WP2402905-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.246 mg/L	0.25 mg/L	98.5	70.0	130	----
Anions and Nutrients (QCLot: 1331065)										
WP2403307-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0953 mg/L	0.1 mg/L	95.3	75.0	125	----
Cyanides (QCLot: 1331051)										
WP2402956-001	SW-15	Cyanide, weak acid dissociable	----	E336-L	0.119 mg/L	0.125 mg/L	95.3	75.0	125	----
Cyanides (QCLot: 1331052)										
WP2402956-001	SW-15	Cyanide, free	----	E339-L	0.121 mg/L	0.125 mg/L	96.8	75.0	125	----
Cyanides (QCLot: 1331053)										
WP2402956-001	SW-15	Cyanide, strong acid dissociable (Total)	----	E333-L	0.222 mg/L	0.25 mg/L	88.7	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1326456)										
WP2402918-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.93 mg/L	5 mg/L	98.5	70.0	130	----
Total Metals (QCLot: 1327674)										
WP2402835-005	Anonymous	Aluminum, total	7429-90-5	E420	0.234 mg/L	0.2 mg/L	117	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0223 mg/L	0.02 mg/L	111	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0237 mg/L	0.02 mg/L	119	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00442 mg/L	0.004 mg/L	111	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0116 mg/L	0.01 mg/L	116	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Copper, total	7440-50-8	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, total	7439-89-6	E420	2.12 mg/L	2 mg/L	106	70.0	130	----
		Lead, total	7439-92-1	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Lithium, total	7439-93-2	E420	0.130 mg/L	0.1 mg/L	130	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0223 mg/L	0.02 mg/L	112	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, total	7723-14-0	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Silicon, total	7440-21-3	E420	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, total	7440-22-4	E420	0.00435 mg/L	0.004 mg/L	109	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, total	7440-31-5	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0442 mg/L	0.04 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1327674) - continued										
WP2402835-005	Anonymous	Tungsten, total	7440-33-7	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.116 mg/L	0.1 mg/L	116	70.0	130	----
		Zinc, total	7440-66-6	E420	0.429 mg/L	0.4 mg/L	107	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
Total Metals (QCLot: 1332438)										
WP2402064-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000971 mg/L	0.0001 mg/L	97.1	70.0	130	----
Dissolved Metals (QCLot: 1329924)										
WP2402539-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.224 mg/L	0.2 mg/L	112	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0229 mg/L	0.02 mg/L	114	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0231 mg/L	0.02 mg/L	116	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0450 mg/L	0.04 mg/L	112	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00469 mg/L	0.004 mg/L	117	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0455 mg/L	0.04 mg/L	114	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0225 mg/L	0.02 mg/L	113	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.16 mg/L	2 mg/L	108	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0229 mg/L	0.02 mg/L	115	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0453 mg/L	0.04 mg/L	113	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.8 mg/L	10 mg/L	118	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.65 mg/L	4 mg/L	116	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0231 mg/L	0.02 mg/L	115	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0472 mg/L	0.04 mg/L	118	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.54 mg/L	10 mg/L	95.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00388 mg/L	0.004 mg/L	97.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1329924) - continued										
WP2402539-001	Anonymous	Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	23.0 mg/L	20 mg/L	115	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00429 mg/L	0.004 mg/L	107	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0223 mg/L	0.02 mg/L	111	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00437 mg/L	0.004 mg/L	109	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.473 mg/L	0.4 mg/L	118	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1332444)										
WP2402956-002	SW-TR	Mercury, dissolved	7439-97-6	E509	0.0000957 mg/L	0.0001 mg/L	95.7	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** CB/AP	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-15	5-Feb-24	10:16	water	9		x		6.83	1.7	86.6
	SW-TR	5-Feb-24	11:36	water	9	x			4.82	0.1	36.6
	SW-01	5-Feb-24	12:45	water	9	x			6.16	1.6	34.5
	SW-04	5-Feb-24	13:25	water	9	x			7	1.7	67.2
	Dup-01	5-Feb-24	10:20	water	9	x			6.83	1.7	86.6
	Field Blank-01	5-Feb-24	10:30	water	9	x			/	/	/
	TRAVEL BLANK	5-Feb-24	/	water	9	x			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	2/6/2024	Time:	Received by:	Date: FEB 07 2024	Time: 8:50	Received by:	Time:

10:00

Environmental Division
Winnipeg
Work Order Reference
WP2402956

Telephone : +1 204 255 9720

Sample Intake						
Client:						
Cheque Enclosed with CoC		Yes		No		
Priority/Emergency Required (circle one)		Yes		No		
Time Sensitive Hold Time (circle one)		Yes		No		
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White		Yellow/Black				
Purple/White		Light blue/White				
Warm red/White		Orange/Black				
Dark Green/White		Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/Time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered		✓
Sub-contracting Forms Printed		✓
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2403186**	Page	: 1 of 13
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Feb-2024 09:45
PO	: PPR-022-3	Date Analysis Commenced	: 08-Feb-2024
C-O-C number	: ----	Issue Date	: 16-Feb-2024 11:28
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	Position	Laboratory Department
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
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Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
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Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-GL02	SW-14	SW-14-B
					Client sampling date / time	06-Feb-2024 12:00	06-Feb-2024 12:48	06-Feb-2024 15:02	07-Feb-2024 13:34	07-Feb-2024 13:45
						WP2403186-001	WP2403186-002	WP2403186-003	WP2403186-004	WP2403186-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.51	7.14	6.98	7.15	6.93
Temperature, field	----	EF001/WP	0.10	°C		1.90	4.10	0.50	1.20	4.10
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.4	7.4	15.8	7.5	7.2
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		35.8	38.7	49.3	54.6	57.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		35.8	38.7	49.3	54.6	57.0
Conductivity	----	E100/WP	1.0	µS/cm		76.4	81.1	308	130	136
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		36.6	38.4	60.7	41.9	61.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		36.5	38.2	60.7	58.8	63.5
pH	----	E108/WP	0.10	pH units		7.53	6.91	6.77	7.05	7.15
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		62.5	66.2	196	112	114
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	<1.0	12.7	2.3	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0054	0.207	0.0961	0.193	0.0575
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.21	0.21	65.0	5.22	5.43
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0129	0.221	0.164	0.0663	0.0215
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0129	0.223	0.164	0.0663	0.0215
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0023	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0148	0.0360	0.0286	0.0178	0.0082
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.64	0.52	2.95	0.46	0.47
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-GL02	SW-14	SW-14-B
					Client sampling date / time	06-Feb-2024 12:00	06-Feb-2024 12:48	06-Feb-2024 15:02	07-Feb-2024 13:34	07-Feb-2024 13:45
						WP2403186-001	WP2403186-002	WP2403186-003	WP2403186-004	WP2403186-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		10.5	10.2	6.53	9.39	23.8
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0047	0.0088	0.0135 RRV	0.0445	0.0273
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000044	0.000030	0.000071	0.000061	0.000061
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00184	0.00491	0.00073 RRV	0.00184	0.00197
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00727	0.0119	0.0131	0.0142	0.0142
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.00000054	0.0000013	0.0000017	0.0000059	0.0000077
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		Not Detected	Not Detected	0.000018	0.0000029	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0076	0.0068	0.0067	0.0098	0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000012	0.00000062	0.0000021	0.0000054	0.0000017
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.3	10.9	17.6	15.7	17.1
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.0000031	0.0000046	0.000050	0.0000066	0.0000014
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00013	0.00016	0.00011	0.00024	0.00023
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00013	0.00016	0.00011	0.00024	0.00023
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000018	0.000075	0.00029	0.000065	0.000045
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00023	0.00020	0.00033 RRV	0.00055	0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.107	1.16	1.29 RRV	0.123	0.077
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000017	0.000036	0.000014	0.000065	0.000025
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0016	0.0016	0.0029	0.0024	0.0027
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.62	2.68	4.08	4.77	5.06
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00971	0.337	0.0922 RRV	0.0752	0.0400
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000108	0.000106	0.000442	0.000177	0.000179
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00017	0.00020	0.00024	0.00054	0.00053
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.035	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.011	0.035	0.012	0.024	0.014
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.771	0.746	1.21	1.46	1.57
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00191	0.00205	0.00200	0.00164	0.00175

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-GL02	SW-14	SW-14-B
					Client sampling date / time	06-Feb-2024 12:00	06-Feb-2024 12:48	06-Feb-2024 15:02	07-Feb-2024 13:34	07-Feb-2024 13:45
						WP2403186-001	WP2403186-002	WP2403186-003	WP2403186-004	WP2403186-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000082	0.000059	0.000054	0.000115	0.000096
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.68	1.93	7.62	0.72	0.66
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.44	1.30	33.6	5.67	4.84
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0230	0.0240	0.0518	0.0371	0.0401
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.61	0.56	1.14	0.49	0.63
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	0.000031	0.000038	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	Not Detected	0.000012	0.000014	0.000011
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000026	Not Detected	0.000013	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00016	0.00023	0.00021 RRV	0.00168	0.00038
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	0.000013	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000036	0.000046	0.000144 RRV	0.000045	0.000050
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00021	0.00033	0.00025	0.00032	0.00030
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0047	0.00047	0.0058	0.0026 RRV	0.0011
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		Not Detected	0.000022	0.000038	0.00011	0.00012
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0012	0.0041	0.0705 RRV	0.0165	0.0215
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000061	0.000049	0.000040	0.000073	0.000090
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00182	0.00414	0.00141 RRV	0.00136	0.00186
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00722	0.0112	0.0162	0.00973	0.0135
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	Not Detected	0.0000037	0.0000032	0.0000075
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0064	0.0068	0.0073	0.0066	0.012
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000016	0.00000061	0.0000049	0.0000089	0.0000038
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.3	10.9	17.3	11.2	16.3
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000038	0.0000056	0.000054	0.0000018	0.0000028
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00019	0.00013	0.00019
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.000055	0.000090	0.00019	0.00013	0.00019
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000017	0.000067	0.00045	0.000030	0.000041

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-GL02	SW-14	SW-14-B
					Client sampling date / time	06-Feb-2024 12:00	06-Feb-2024 12:48	06-Feb-2024 15:02	07-Feb-2024 13:34	07-Feb-2024 13:45
						WP2403186-001	WP2403186-002	WP2403186-003	WP2403186-004	WP2403186-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00019	0.00016	0.00088 RRV	0.00034	0.00049
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.078	0.851	2.69 RRV	0.046	0.056
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000015	0.000026	0.000092	0.000062	0.000017
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0011	0.0011	0.0023	0.0013	0.0024
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.64	2.71	4.26	3.38	5.13
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00865	0.328	0.130 RRV	0.0416	0.0379
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000126	0.000118	0.000392	0.000138	0.000195
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00010	0.00017	0.00039	0.00038	0.00049
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.0061	0.022	0.017	0.0060	0.010
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.750	0.736	1.24	1.02	1.52
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00186	0.00208	0.00202	0.00119	0.00163
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000054	0.000076	0.000044	0.000104	0.000146
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.561	1.80	7.67	0.402	0.572
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000016	Not Detected	Not Detected	Not Detected	0.0000033
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.48	1.31	35.6	3.50	4.86
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0226	0.0246	0.0559	0.0259	0.0388
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.51	0.41	0.92	0.28	0.38
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	0.000037
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	Not Detected	0.0000029	0.0000022	0.0000024
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	0.000027	0.000013	0.000017
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.000054	0.00015	0.00347 RRV	0.00024	0.00031
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	0.000063	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000032	0.000040	0.000214 RRV	0.000031	0.000045
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		Not Detected	0.00012	0.00045	0.000091	0.00013
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0015	0.00028	0.0070	0.0048 RRV	0.0033
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		Not Detected	0.000025	0.000062	0.000088	0.00014
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	SW-GL02	SW-14	SW-14-B
					Client sampling date / time	06-Feb-2024 12:00	06-Feb-2024 12:48	06-Feb-2024 15:02	07-Feb-2024 13:34	07-Feb-2024 13:45
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403186-001	WP2403186-002	WP2403186-003	WP2403186-004	WP2403186-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-12-B	----	----	----	----
				Client sampling date / time	07-Feb-2024 14:56	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2403186-006	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.36	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	<0.10	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	45.1	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	65.1	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	65.1	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	155	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	56.3	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	65.6	----	----	----	----
pH	----	E108/WP	0.10	pH units	6.37	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	157	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	48.5	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	1.85	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	3.39	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0088	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0184	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0096	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.542	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.85	----	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0017	----	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	0.0015	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-12-B	----	----	----	----
					Client sampling date / time	07-Feb-2024 14:56	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403186-006	--------	--------	--------	--------
						Result	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		48.8	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.317	----	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00012	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00414	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0180	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000015	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000048	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0079	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000232	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		17.4	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000025	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00118	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00118	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00083	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00248	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		1.52	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000306	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0022	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		5.38	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.165	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000108	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000211	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00174	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.533	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.533	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		3.17	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00289	----	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000131	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		6.02	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-12-B	----	----	----	----
					Client sampling date / time	07-Feb-2024 14:56	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403186-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000037	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		6.52	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0456	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.16	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000070	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000072	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000016	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0106	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000122	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00123	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0074	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00027	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0585	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000093	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00396	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0140	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000015	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0035	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000126	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		15.0	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000046	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00051	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00051	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00068	----	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00123	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.998	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-12-B	----	----	----	----
					Client sampling date / time	07-Feb-2024 14:56	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403186-006	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000086	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0012	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.57	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.150	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000055	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000185	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00135	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		0.444	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.444	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		3.23	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00266	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000120	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.77	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		4.81	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0408	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.17	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000079	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000084	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00178	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000065	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00083	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0042	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00031	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2403186**	Page	: 1 of 27
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Feb-2024 09:45
PO	: PPR-022-3	Issue Date	: 16-Feb-2024 11:28
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG3-1330859 001	----	Selenium, total	7782-49-2	E420	0.000200 B mg/L	0.00005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-12-B	E298	07-Feb-2024	12-Feb-2024	28 days	5 days	✓	12-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14	E298	07-Feb-2024	12-Feb-2024	28 days	5 days	✓	12-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14-B	E298	07-Feb-2024	12-Feb-2024	28 days	5 days	✓	12-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	06-Feb-2024	12-Feb-2024	28 days	6 days	✓	12-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL02	E298	06-Feb-2024	12-Feb-2024	28 days	6 days	✓	12-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	06-Feb-2024	12-Feb-2024	28 days	6 days	✓	12-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-12-B	E235.Cl-L	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-14	E235.Cl-L	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-14-B	E235.Cl-L	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL	E235.Cl-L	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL02	E235.Cl-L	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL-B	E235.Cl-L	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-12-B	E235.NO3-L	07-Feb-2024	09-Feb-2024	3 days	2 days	✓	09-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-14	E235.NO3-L	07-Feb-2024	09-Feb-2024	3 days	2 days	✓	09-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-14-B	E235.NO3-L	07-Feb-2024	09-Feb-2024	3 days	2 days	✓	09-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL	E235.NO3-L	06-Feb-2024	09-Feb-2024	3 days	3 days	✓	09-Feb-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL02	E235.NO3-L	06-Feb-2024	09-Feb-2024	3 days	3 days	✓	09-Feb-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL-B	E235.NO3-L	06-Feb-2024	09-Feb-2024	3 days	3 days	✓	09-Feb-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-12-B	E235.NO2-L	07-Feb-2024	09-Feb-2024	3 days	2 days	✓	09-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-14	E235.NO2-L	07-Feb-2024	09-Feb-2024	3 days	2 days	✓	09-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-14-B	E235.NO2-L	07-Feb-2024	09-Feb-2024	3 days	2 days	✓	09-Feb-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL	E235.NO2-L	06-Feb-2024	09-Feb-2024	3 days	3 days	✓	09-Feb-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL02	E235.NO2-L	06-Feb-2024	09-Feb-2024	3 days	3 days	✓	09-Feb-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL-B	E235.NO2-L	06-Feb-2024	09-Feb-2024	3 days	3 days	✓	09-Feb-2024	3 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-12-B	E235.SO4	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-14	E235.SO4	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-14-B	E235.SO4	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL	E235.SO4	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL02	E235.SO4	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL-B	E235.SO4	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-12-B	E372-U	07-Feb-2024	12-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-14	E372-U	07-Feb-2024	12-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-14-B	E372-U	07-Feb-2024	12-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	06-Feb-2024	12-Feb-2024	28 days	6 days	✓	13-Feb-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL02	E372-U	06-Feb-2024	12-Feb-2024	28 days	6 days	✓	13-Feb-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL-B	E372-U	06-Feb-2024	12-Feb-2024	28 days	6 days	✓	13-Feb-2024	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12-B	E339-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E339-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E339-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12-B	E333-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E333-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E333-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12-B	E336-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E336-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E336-L	07-Feb-2024	15-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL02	E336-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E336-L	06-Feb-2024	15-Feb-2024	14 days	9 days	✓	15-Feb-2024	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-14	E421.Cr-L	07-Feb-2024	12-Feb-2024	180 days	5 days	✓	12-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-14-B	E421.Cr-L	07-Feb-2024	12-Feb-2024	180 days	5 days	✓	12-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL02	E421.Cr-L	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.Cr-L	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-12-B	E421.Cr-L	07-Feb-2024	15-Feb-2024	180 days	8 days	✓	15-Feb-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-12-B	E509	07-Feb-2024	14-Feb-2024	28 days	7 days	✓	14-Feb-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-14	E509	07-Feb-2024	14-Feb-2024	28 days	7 days	✓	14-Feb-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-14-B	E509	07-Feb-2024	14-Feb-2024	28 days	7 days	✓	14-Feb-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	06-Feb-2024	14-Feb-2024	28 days	8 days	✓	14-Feb-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL02	E509	06-Feb-2024	14-Feb-2024	28 days	8 days	✓	14-Feb-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL-B	E509	06-Feb-2024	14-Feb-2024	28 days	8 days	✓	14-Feb-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-14	E421	07-Feb-2024	12-Feb-2024	180 days	5 days	✓	12-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-14-B	E421	07-Feb-2024	12-Feb-2024	180 days	5 days	✓	12-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL	E421	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL02	E421	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-12-B	E421	07-Feb-2024	15-Feb-2024	180 days	8 days	✓	15-Feb-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-14	E421.P-L	07-Feb-2024	12-Feb-2024	180 days	5 days	✓	12-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-14-B	E421.P-L	07-Feb-2024	12-Feb-2024	180 days	5 days	✓	12-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL02	E421.P-L	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	06-Feb-2024	12-Feb-2024	180 days	6 days	✓	12-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-12-B	E421.P-L	07-Feb-2024	15-Feb-2024	180 days	8 days	✓	15-Feb-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-12-B	EF001	07-Feb-2024	----	----	----		09-Feb-2024	----	2 days	

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-14	EF001	07-Feb-2024	----	----	----		09-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-14-B	EF001	07-Feb-2024	----	----	----		09-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	06-Feb-2024	----	----	----		09-Feb-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL02	EF001	06-Feb-2024	----	----	----		09-Feb-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL-B	EF001	06-Feb-2024	----	----	----		09-Feb-2024	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-12-B	E358-L	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-14	E358-L	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-14-B	E358-L	07-Feb-2024	09-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL02	E358-L	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL-B	E358-L	06-Feb-2024	09-Feb-2024	28 days	3 days	✓	09-Feb-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-12-B	E283	07-Feb-2024	14-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-14	E283	07-Feb-2024	14-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-14-B	E283	07-Feb-2024	14-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	06-Feb-2024	14-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL02	E283	06-Feb-2024	14-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	06-Feb-2024	14-Feb-2024	14 days	8 days	✓	15-Feb-2024	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-12-B	E290	07-Feb-2024	08-Feb-2024	14 days	1 days	✓	09-Feb-2024	14 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-14	E290	07-Feb-2024	08-Feb-2024	14 days	1 days	✓	09-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-14-B	E290	07-Feb-2024	08-Feb-2024	14 days	1 days	✓	09-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL	E290	06-Feb-2024	08-Feb-2024	14 days	2 days	✓	09-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL02	E290	06-Feb-2024	08-Feb-2024	14 days	2 days	✓	09-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL-B	E290	06-Feb-2024	08-Feb-2024	14 days	2 days	✓	09-Feb-2024	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-12-B	E100	07-Feb-2024	08-Feb-2024	28 days	1 days	✓	09-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-14	E100	07-Feb-2024	08-Feb-2024	28 days	1 days	✓	09-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-14-B	E100	07-Feb-2024	08-Feb-2024	28 days	1 days	✓	09-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL	E100	06-Feb-2024	08-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-GL02	E100	06-Feb-2024	08-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL-B	E100	06-Feb-2024	08-Feb-2024	28 days	2 days	✓	09-Feb-2024	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE SW-12-B	E108	07-Feb-2024	08-Feb-2024	0.25 hrs	18 hrs	× EHTR-FM	09-Feb-2024	0.25 hrs	42 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-14	E108	07-Feb-2024	08-Feb-2024	0.25 hrs	19 hrs	× EHTR-FM	09-Feb-2024	0.25 hrs	43 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-14-B	E108	07-Feb-2024	08-Feb-2024	0.25 hrs	19 hrs	× EHTR-FM	09-Feb-2024	0.25 hrs	43 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL02	E108	06-Feb-2024	08-Feb-2024	0.25 hrs	42 hrs	× EHTR-FM	09-Feb-2024	0.25 hrs	66 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL-B	E108	06-Feb-2024	08-Feb-2024	0.25 hrs	44 hrs	× EHTR-FM	09-Feb-2024	0.25 hrs	68 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL	E108	06-Feb-2024	08-Feb-2024	0.25 hrs	45 hrs	× EHTR-FM	09-Feb-2024	0.25 hrs	69 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-12-B	E162-L	07-Feb-2024	----	----	----		12-Feb-2024	7 days	5 days	✓

Matrix: **Water**

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-14	E162-L	07-Feb-2024	----	----	----		12-Feb-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-14-B	E162-L	07-Feb-2024	----	----	----		12-Feb-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL	E162-L	06-Feb-2024	----	----	----		12-Feb-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL02	E162-L	06-Feb-2024	----	----	----		12-Feb-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL-B	E162-L	06-Feb-2024	----	----	----		12-Feb-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-12-B	E160-L	07-Feb-2024	----	----	----		09-Feb-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14	E160-L	07-Feb-2024	----	----	----		09-Feb-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14-B	E160-L	07-Feb-2024	----	----	----		09-Feb-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	06-Feb-2024	----	----	----		09-Feb-2024	7 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL02	E160-L	06-Feb-2024	----	----	----		09-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	06-Feb-2024	----	----	----		09-Feb-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-12-B	E420.Cr-L	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14	E420.Cr-L	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14-B	E420.Cr-L	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-12-B	E508	07-Feb-2024	14-Feb-2024	28 days	7 days	✓	14-Feb-2024	28 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14	E508	07-Feb-2024	14-Feb-2024	28 days	7 days	✓	14-Feb-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14-B	E508	07-Feb-2024	14-Feb-2024	28 days	7 days	✓	14-Feb-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	06-Feb-2024	14-Feb-2024	28 days	8 days	✓	14-Feb-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL02	E508	06-Feb-2024	14-Feb-2024	28 days	8 days	✓	14-Feb-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	06-Feb-2024	14-Feb-2024	28 days	8 days	✓	14-Feb-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-12-B	E420	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14	E420	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14-B	E420	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-12-B	E420.P-L	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14	E420.P-L	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14-B	E420.P-L	07-Feb-2024	13-Feb-2024	180 days	6 days	✓	13-Feb-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL02	E420.P-L	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	06-Feb-2024	13-Feb-2024	180 days	7 days	✓	13-Feb-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1332836	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1329900	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1330178	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1328389	0	6	0.0	5.0	×
Conductivity in Water	E100	1329901	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1329925	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1329924	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1327953	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1329926	1	35	2.8	5.0	×
Free Cyanide (Low Level)	E339-L	1333784	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1328387	0	6	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	1328388	0	6	0.0	5.0	×
pH by Meter	E108	1329899	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1328385	0	17	0.0	5.0	×
TDS by Gravimetry (Low Level)	E162-L	1329749	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1330860	0	6	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1333782	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1332438	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1330859	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1330413	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1330861	0	6	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1328294	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1333783	1	11	9.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1332836	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1329900	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1330178	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1328389	1	6	16.6	5.0	✓
Conductivity in Water	E100	1329901	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1329925	2	17	11.7	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1329924	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1327953	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1329926	2	35	5.7	5.0	✓
Free Cyanide (Low Level)	E339-L	1333784	1	11	9.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1328387	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1328388	1	6	16.6	5.0	✓
pH by Meter	E108	1329899	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1328385	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1329749	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1330860	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1333782	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1332438	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1330859	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1330413	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1330861	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1328294	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1333783	1	11	9.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1332836	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1329900	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1330178	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1328389	1	6	16.6	5.0	✓
Conductivity in Water	E100	1329901	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1329925	2	17	11.7	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1329924	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1327953	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1329926	2	35	5.7	5.0	✓
Free Cyanide (Low Level)	E339-L	1333784	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1328387	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1328388	1	6	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1328385	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1329749	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1330860	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1333782	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1332438	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1330859	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1330413	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1330861	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1328294	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1333783	1	11	9.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1330178	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1328389	0	6	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1329925	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1329924	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1327953	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1329926	1	35	2.8	5.0	✗
Free Cyanide (Low Level)	E339-L	1333784	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1328387	0	6	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1328388	0	6	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1328385	0	17	0.0	5.0	✗
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1330860	0	6	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1333782	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1332438	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1330859	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1330413	0	20	0.0	5.0	✗
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1330861	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1333783	1	11	9.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2403186**	Page	: 1 of 22
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Feb-2024 09:45
PO	: PPR-022-3	Date Analysis Commenced	: 08-Feb-2024
C-O-C number	: ----	Issue Date	: 16-Feb-2024 11:28
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Kelly Fischer	Technical Specialist	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1328294)											
WP2403162-002	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.9	mg/L	37.0	37.0	0.00%	20%	----
Physical Tests (QC Lot: 1329749)											
WP2403181-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	88.2	80.8	7.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1329899)											
WP2403156-001	Anonymous	pH	----	E108	0.10	pH units	7.60	7.52	1.06%	4%	----
Physical Tests (QC Lot: 1329900)											
WP2403156-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	418	420	0.286%	20%	----
Physical Tests (QC Lot: 1329901)											
WP2403156-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	2640	2670	1.13%	10%	----
Physical Tests (QC Lot: 1332836)											
WP2403186-001	SW-GL	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.4	<2.0	0.4	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1330178)											
WP2403110-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0359	0.0360	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1330413)											
WP2403162-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.30	1.30	0.428%	20%	----
Cyanides (QC Lot: 1333782)											
WP2403181-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1333783)											
WP2403186-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1333784)											
WP2403186-001	SW-GL	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1327953)											
WP2403186-001	SW-GL	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.5	9.88	5.72%	20%	----
Total Metals (QC Lot: 1330859)											
WP2403180-004	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00114	0.00112	1.70%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0359	0.0356	0.876%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1330859) - continued											
WP2403180-004	Anonymous	Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.136	0.146	6.91%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	65.8	66.2	0.718%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00026	0.00025	0.000001	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00204	0.00201	0.00003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.844	0.829	1.72%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0230	0.0233	1.14%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	58.4	58.4	0.0884%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0161	0.0161	0.372%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000507	0.000520	2.44%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00068	0.00070	0.00002	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	5.02	5.06	0.670%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00331	0.00320	3.36%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000175	0.000176	0.0000009	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	6.08	6.09	0.148%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	11.9	12.0	1.11%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.211	0.209	0.869%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	20.1	20.6	2.13%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000115	0.000116	1.07%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0074	0.0071	0.0002	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1332438)											
WP2402063-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1329924)											
WP2402539-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	18.9 µg/L	0.0179	5.24%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00092	0.00094	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00788	0.00787	0.100%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	12.6	13.0	2.99%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000075	0.000073	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00090	0.00093	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.014	0.014	0.0001	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0014	0.0015	0.00003	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.10	4.05	1.33%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00019	0.00018	0.00001	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000169	0.000157	0.000012	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00053	0.00054	0.00001	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.835	0.882	5.41%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00140	0.00136	0.00003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000083	0.000112	0.000029	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.94	1.90	1.69%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.68	2.70	0.538%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0246	0.0256	4.14%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.06	1.06	0.002	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1329924) - continued											
WP2402539-001	Anonymous	Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00036	0.00041	0.00005	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000074	0.000081	0.000007	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1332444)											
WP2402956-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1333908)											
WP2403186-006	SW-12-B	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00051	0.00050	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1333909)											
WP2403186-006	SW-12-B	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	0.444	0.445	0.204%	20%	----
Dissolved Metals (QC Lot: 1333910)											
WP2403186-006	SW-12-B	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0585	0.0576	1.69%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00396	0.00393	0.765%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0140	0.0140	0.0155%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000126	0.0000092	0.0000034	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	15.0	15.0	0.401%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00051	0.00050	0.00001	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00068	0.00068	0.000002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00123	0.00118	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.998	1.01	1.47%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000086	0.000088	0.000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0012	0.0011	0.00006	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.57	4.59	0.428%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.150	0.150	0.252%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000185	0.000193	0.000009	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00135	0.00131	0.00004	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1333910) - continued											
WP2403186-006	SW-12-B	Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.444	0.445	0.0009	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	3.23	3.24	0.271%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00266	0.00270	1.22%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000120	0.000196	0.000076	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.77	3.72	1.28%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.81	4.74	1.38%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0408	0.0390	4.38%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.17	1.21	0.04	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00178	0.00189	0.00010	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000065	0.000064	0.000001	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00083	0.00080	0.00003	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0042	0.0043	0.0001	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00031	0.00030	0.000008	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1328294)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1329749)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1329900)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1329901)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1332836)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1328385)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1328387)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1328388)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1328389)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1330178)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1330413)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1333782)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1333783)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1333784)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1327953)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1330859)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1330859) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	# 0.000200	B
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1330859) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1330860)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1330861)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1332438)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1329924)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1329924) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1329925)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1329926)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1332444)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1333908)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1333909)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1333910)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1333910) - continued						
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1328294)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	96.0	85.0	115	----
Physical Tests (QCLot: 1329749)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.0	85.0	115	----
Physical Tests (QCLot: 1329899)									
pH	----	E108	----	pH units	7 pH units	99.1	98.0	102	----
Physical Tests (QCLot: 1329900)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1329901)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1332836)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	115	85.0	115	----
Anions and Nutrients (QCLot: 1328385)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1328387)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1328388)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1328389)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1330178)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.2	85.0	115	----
Anions and Nutrients (QCLot: 1330413)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.2	80.0	120	----
Cyanides (QCLot: 1333782)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	86.6	80.0	120	----
Cyanides (QCLot: 1333783)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	96.5	80.0	120	----
Cyanides (QCLot: 1333784)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1327953)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.8	80.0	120	----
Total Metals (QCLot: 1330859)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.9	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.7	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	96.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.3	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.6	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.3	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.9	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	103	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	96.9	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.1	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.0	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	91.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.2	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	111	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	95.4	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.6	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1330859) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.3	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.2	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.9	80.0	120	----
Total Metals (QCLot: 1330860)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	100.0	80.0	120	----
Total Metals (QCLot: 1330861)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Total Metals (QCLot: 1332438)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	98.2	80.0	120	----
Dissolved Metals (QCLot: 1329924)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.9	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.7	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	111	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	96.7	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.9	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1329924) - continued									
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	88.1	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	93.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.1	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.9	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	100	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.8	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	90.7	80.0	120	----
Dissolved Metals (QCLot: 1329925)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.1	80.0	120	----
Dissolved Metals (QCLot: 1333908)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1333910)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.4	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.3	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1333910) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	98.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.4	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	91.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	97.5	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.1	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	96.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.0	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.3	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.2	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.1	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.3	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1330178)										
WP2403110-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.101 mg/L	0.1 mg/L	101	75.0	125	----
Cyanides (QCLot: 1333782)										
WP2403181-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.218 mg/L	0.25 mg/L	87.3	75.0	125	----
Cyanides (QCLot: 1333783)										
WP2403186-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.122 mg/L	0.125 mg/L	97.4	75.0	125	----
Cyanides (QCLot: 1333784)										
WP2403186-001	SW-GL	Cyanide, free	----	E339-L	0.121 mg/L	0.125 mg/L	97.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1327953)										
WP2403186-002	SW-GL-B	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1330859)										
WP2403180-004	Anonymous	Aluminum, total	7429-90-5	E420	0.225 mg/L	0.2 mg/L	112	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0473 mg/L	0.04 mg/L	118	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00440 mg/L	0.004 mg/L	110	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0444 mg/L	0.04 mg/L	111	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Copper, total	7440-50-8	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Iron, total	7439-89-6	E420	2.14 mg/L	2 mg/L	107	70.0	130	----
		Lead, total	7439-92-1	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Lithium, total	7439-93-2	E420	0.118 mg/L	0.1 mg/L	118	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0427 mg/L	0.04 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1330859) - continued										
WP2403180-004	Anonymous	Phosphorus, total	7723-14-0	E420	11.6 mg/L	10 mg/L	116	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0457 mg/L	0.04 mg/L	114	70.0	130	----
		Silicon, total	7440-21-3	E420	9.28 mg/L	10 mg/L	92.8	70.0	130	----
		Silver, total	7440-22-4	E420	0.00399 mg/L	0.004 mg/L	99.9	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0382 mg/L	0.04 mg/L	95.4	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00413 mg/L	0.004 mg/L	103	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0223 mg/L	0.02 mg/L	111	70.0	130	----
		Tin, total	7440-31-5	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00431 mg/L	0.004 mg/L	108	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Zinc, total	7440-66-6	E420	0.412 mg/L	0.4 mg/L	103	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
Total Metals (QCLot: 1332438)										
WP2402064-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000971 mg/L	0.0001 mg/L	97.1	70.0	130	----
Dissolved Metals (QCLot: 1329924)										
WP2402539-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.224 mg/L	0.2 mg/L	112	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0229 mg/L	0.02 mg/L	114	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0231 mg/L	0.02 mg/L	116	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0450 mg/L	0.04 mg/L	112	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00469 mg/L	0.004 mg/L	117	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0455 mg/L	0.04 mg/L	114	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0225 mg/L	0.02 mg/L	113	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1329924) - continued										
WP2402539-001	Anonymous	Iron, dissolved	7439-89-6	E421	2.16 mg/L	2 mg/L	108	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0229 mg/L	0.02 mg/L	115	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0453 mg/L	0.04 mg/L	113	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.8 mg/L	10 mg/L	118	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.65 mg/L	4 mg/L	116	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0231 mg/L	0.02 mg/L	115	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0472 mg/L	0.04 mg/L	118	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.54 mg/L	10 mg/L	95.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00388 mg/L	0.004 mg/L	97.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	23.0 mg/L	20 mg/L	115	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00429 mg/L	0.004 mg/L	107	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0223 mg/L	0.02 mg/L	111	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00437 mg/L	0.004 mg/L	109	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.473 mg/L	0.4 mg/L	118	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1332444)										
WP2402956-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000957 mg/L	0.0001 mg/L	95.7	70.0	130	----
Dissolved Metals (QCLot: 1333908)										
WP2403186-006	SW-12-B	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 1333909)										
WP2403186-006	SW-12-B	Phosphorus, dissolved	7723-14-0	E421.P-L	10.6 mg/L	10 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1333910)										
WP2403186-006	SW-12-B	Aluminum, dissolved	7429-90-5	E421	0.199 mg/L	0.2 mg/L	99.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1333910) - continued										
WP2403186-006	SW-12-B	Antimony, dissolved	7440-36-0	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00928 mg/L	0.01 mg/L	92.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.086 mg/L	0.1 mg/L	85.9	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.98 mg/L	2 mg/L	99.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0929 mg/L	0.1 mg/L	92.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0181 mg/L	0.02 mg/L	90.7	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.49 mg/L	4 mg/L	112	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0439 mg/L	0.04 mg/L	110	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.73 mg/L	10 mg/L	87.3	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00332 mg/L	0.004 mg/L	83.0	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.4 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0398 mg/L	0.04 mg/L	99.6	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00393 mg/L	0.004 mg/L	98.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0180 mg/L	0.02 mg/L	89.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0357 mg/L	0.04 mg/L	89.3	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0173 mg/L	0.02 mg/L	86.3	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00381 mg/L	0.004 mg/L	95.2	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1333910) - continued										
WP2403186-006	SW-12-B	Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.412 mg/L	0.4 mg/L	103	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0360 mg/L	0.04 mg/L	90.0	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] If received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] If received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] If received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] If received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] If received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] If received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	Temp - 8.0°C
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** CB/AP	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (ms/cm)
	SW-GL	6-Feb-24	12:00	Water		x			7.51	1.9	46
	SW-GL-B	6-Feb-24	12:48	Water		x			7.14	4.1	51.3
	SW-GL02	6-Feb-24	15:02	Water			x		6.98	0.5	178.7
	SW-14	7-Feb-24	13:34	Water			x		7.15	1.2	77.5
	SW-14-B	7-Feb-24	13:45	Water			x		6.93	4.1	96.9
	SW-12b	7-Feb-24	14:56	Water			x		6.36	0	105.6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	EM	Time: Feb 8	Received by: MPM	Date: 09Feb24	Time: 09:45	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2403186

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2403349**	Page	: 1 of 14
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Feb-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 13-Feb-2024
C-O-C number	: ----	Issue Date	: 21-Feb-2024 11:44
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	Position	Laboratory Department
Julie Young	Login	Administration, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
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Lee McTavish		Inorganics, Winnipeg, Manitoba
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Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
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Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.
Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Sample(s) Hg-T -008: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08	DC-US	DL-REF	SW-DUP02
					Client sampling date / time	08-Feb-2024 12:50	08-Feb-2024 14:00	09-Feb-2024 12:00	10-Feb-2024 10:00	10-Feb-2024 10:00
						WP2403349-001	WP2403349-002	WP2403349-003	WP2403349-004	WP2403349-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.91	7.31	7.51	7.66	7.66
Temperature, field	----	EF001/WP	0.10	°C		0.60	0.10	0.40	0.50	0.50
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		3.6	5.8	6.1	10.9	13.1
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		124	50.7	54.0	48.5	48.1
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		124	50.7	54.0	48.5	48.1
Conductivity	----	E100/WP	1.0	µS/cm		235	116	114	106	106
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		119	56.6	56.4	54.0	53.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		114	57.7	55.7	50.7	52.1
pH	----	E108/WP	0.10	pH units		7.71	7.38	7.17	6.78	6.77
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		140	86.3	89.3	95.7	96.3
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		20.8	6.0	3.6	4.1	3.7
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0755	0.0528	0.0500	0.0574	0.0576
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.00	3.27	0.52	0.51	0.47
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.235	0.125	0.0870	0.0998	0.0952
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.238	0.126	0.0870	0.0998	0.0952
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0027	0.0012	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0408	0.0258	0.0243	0.0304	0.0306
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		3.51	1.09	0.84	1.08	1.15
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08	DC-US	DL-REF	SW-DUP02
					Client sampling date / time	08-Feb-2024 12:50	08-Feb-2024 14:00	09-Feb-2024 12:00	10-Feb-2024 10:00	10-Feb-2024 10:00
						WP2403349-001	WP2403349-002	WP2403349-003	WP2403349-004	WP2403349-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		4.60	19.7	18.4	23.6	25.1
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.548	0.209	0.0983	0.282	0.279
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000048	0.000074	0.000068	0.000066	0.000066
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00099	0.00152	0.00156	0.00179	0.00183
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0220	0.0138	0.0114	0.0128	0.0129
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000018	0.000015	0.000013	0.000021	0.000016
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000041	0.0000063	0.00000088	0.0000036	0.0000032
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0061	0.0058	0.0058	0.0054	0.0058
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000054	0.0000060	0.0000041	0.0000047	0.0000052
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		33.4	16.2	15.2	13.3	13.5
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000063	0.000017	0.0000070	0.000022	0.000024
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00110	0.00064	0.00034	0.00067	0.00068
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00110	0.00064	0.00034	0.00067	0.00068
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00036	0.00019	0.00016	0.00057	0.00055
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00091	0.00114	0.00076	0.00090	0.00090
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.695	0.524	0.386	1.09	1.09
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000232	0.000156	0.000087	0.000194	0.000195
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0062	0.0021	0.0020	0.0022	0.0023
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		7.56	4.20	4.32	4.25	4.46
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0923	0.0321	0.0476	0.156	0.157
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000744	0.000244	0.000232	0.000210	0.000217
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00092	0.00074	0.00064	0.00079	0.00083
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.049	<0.030	<0.030	<0.030	0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.049	0.028	0.025	0.029	0.030
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		2.08	1.23	1.45	1.08	1.08
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00189	0.00234	0.00228	0.00213	0.00235

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08	DC-US	DL-REF	SW-DUP02
					Client sampling date / time	08-Feb-2024 12:50	08-Feb-2024 14:00	09-Feb-2024 12:00	10-Feb-2024 10:00	10-Feb-2024 10:00
						WP2403349-001	WP2403349-002	WP2403349-003	WP2403349-004	WP2403349-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000151	0.000115	0.000091	0.000142	0.000144
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		6.72	3.40	3.26	3.58	3.47
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000017	0.000022	Not Detected	Not Detected	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.65	4.27	2.80	2.01	2.01
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0477	0.0332	0.0319	0.0336	0.0341
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.31	0.62	0.45	0.66	0.49
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000091	0.0000043	0.0000026	0.0000062	0.0000063
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00012	0.000050	0.000035	0.000065	0.000075
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000021	0.00013	Not Detected	Not Detected	0.000013
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0301	0.00864	0.00366	0.0109	0.0108
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000022	0.000084	Not Detected	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.00187	0.000218	0.000174	0.000306	0.000330
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00205	0.00089	0.00060	0.00114	0.00116
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0016	0.0078	0.0010	0.0047	0.0029
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00032	0.00022	0.00018	0.00029	0.00027
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0065	0.0401	0.0388	0.102	0.103
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000044	0.000082	0.000064	0.000065	0.000070
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00082	0.00139	0.00156	0.00182	0.00173
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0186	0.0123	0.0116	0.0120	0.0116
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	0.0000070	0.000012	0.000012	0.000013
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0066	0.0059	0.0055	0.0052	0.0067
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000034	0.0000041	0.0000043	0.0000047	0.0000027
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		34.4	15.5	15.3	13.8	13.7
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	0.0000019	0.0000023	0.0000027	0.0000040
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00022	0.00022	0.00037	0.00037
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.000088	0.00022	0.00022	0.00037	0.00037
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000075	0.00011	0.00013	0.00050	0.00049

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08	DC-US	DL-REF	SW-DUP02
					Client sampling date / time	08-Feb-2024 12:50	08-Feb-2024 14:00	09-Feb-2024 12:00	10-Feb-2024 10:00	10-Feb-2024 10:00
						WP2403349-001	WP2403349-002	WP2403349-003	WP2403349-004	WP2403349-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00042	0.00078	0.00069	0.00090	0.00078
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.045	0.254	0.275	0.836	0.815
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000014	0.000074	0.000056	0.000141	0.000118
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0053	0.0018	0.0018	0.0018	0.0025
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		8.15	4.36	4.43	4.75	4.76
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0629	0.0286	0.0429	0.155	0.160
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000869	0.000271	0.000241	0.000215	0.000200
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00024	0.00054	0.00057	0.00063	0.00062
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.013	0.015	0.015	0.019	0.012
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		2.18	1.31	1.41	1.17	1.14
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00069	0.00195	0.00220	0.00203	0.00198
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000187	0.000121	0.000113	0.000113	0.000118
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.06	3.04	3.36	3.36	3.30
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000013	0.0000043	0.0000010	0.0000012	0.0000023
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.66	2.16	1.98	2.12	2.03
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0491	0.0338	0.0333	0.0364	0.0345
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.55	0.83	0.71	0.69	0.73
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000011	0.0000021	0.0000020	0.0000040	0.0000037
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	0.000036	0.000030	0.000066	0.000060
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000013	0.000080	Not Detected	Not Detected	0.000019
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00038	0.00145	0.00113	0.00277	0.00266
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000018	0.000058	Not Detected	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.00176	0.000201	0.000149	0.000275	0.000260
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00078	0.00044	0.00041	0.00070	0.00072
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00094	0.0036	0.0010	0.0026	0.0034
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.000074	0.00020	0.00022	0.00034	0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	SW-08	DC-US	DL-REF	SW-DUP02
					Client sampling date / time	08-Feb-2024 12:50	08-Feb-2024 14:00	09-Feb-2024 12:00	10-Feb-2024 10:00	10-Feb-2024 10:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403349-001	WP2403349-002	WP2403349-003	WP2403349-004	WP2403349-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-FIELD02	CR-FDP	CR-REF	SW-17	----
					Client sampling date / time	10-Feb-2024 10:10	10-Feb-2024 12:00	10-Feb-2024 13:30	11-Feb-2024 11:45	----
						WP2403349-006	WP2403349-007	WP2403349-008	WP2403349-009	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		----	8.18	8.21	7.59	----
Temperature, field	----	EF001/WP	0.10	°C		----	<0.10	0.30	0.60	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	2.6	2.4	6.6	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	31.8	27.1	2.5	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	31.8	27.1	2.5	----
Conductivity	----	E100/WP	1.0	µS/cm		1.4	93.6	82.8	4190	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		<0.50	40.1	36.4	136	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		<0.50	44.7	34.7	143	----
pH	----	E108/WP	0.10	pH units		5.50	7.27	7.26	5.60	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		<3.0	85.3	59.7	2290	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	129	1.2	13.0	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	0.0419	0.294	0.567	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		----	<0.0010	0.0040	0.0019	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		Not Detected	3.42	3.28	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		----	----	----	1420	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.183	0.327	0.322	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.185	0.330	0.322	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0021	0.0029	<0.0200 DLM	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		<0.0020	0.101	0.0175	0.102	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	5.91	5.64	22.2	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0070	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-FIELD02	CR-FDP	CR-REF	SW-17	----
					Client sampling date / time	10-Feb-2024 10:10	10-Feb-2024 12:00	10-Feb-2024 13:30	11-Feb-2024 11:45	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403349-006	WP2403349-007	WP2403349-008	WP2403349-009	--------
						Result	Result	Result	Result	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0012	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		1.27	12.6	12.2	13.6	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0013	1.08	0.0431	0.294	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000017	0.00061	0.00036	0.00017	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.000011	0.0105	0.00768	0.00092	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.000021	0.0236	0.00785	0.249	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000013	0.000031	0.0000019	0.000012	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.00000066	0.000017	0.0000035	0.0000098	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		Not Detected	0.0061	0.0048	0.0021	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000016	0.0000156	0.0000118	0.000248	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		0.0073	12.0	9.58	41.9	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		Not Detected	0.000129	0.0000042	0.000257	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	0.00299	0.00026	0.00064	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		Not Detected	0.00299	0.00026	0.00064	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		Not Detected	0.00069	0.000075	0.00306	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		Not Detected	0.00445	0.00162	0.00206	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		Not Detected	1.45	0.067	0.341	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		Not Detected	0.000632	0.000118	0.000193	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		Not Detected	0.0016	0.00034	0.00072	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		0.0010	3.59	2.62	9.41	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.000033	0.0335	0.00491	0.513	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000052	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.0000076	0.000226	0.000190	0.000142	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		Not Detected	0.00361	0.00132	0.00250	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.092	<0.030	0.148	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.019	0.092	0.016	0.148	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		Not Detected	1.46	0.948	28.9	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		Not Detected	0.00383	0.00143	0.0557	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-FIELD02	CR-FDP	CR-REF	SW-17	----
					Client sampling date / time	10-Feb-2024 10:10	10-Feb-2024 12:00	10-Feb-2024 13:30	11-Feb-2024 11:45	----
						WP2403349-006	WP2403349-007	WP2403349-008	WP2403349-009	--------
						Result	Result	Result	Result	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000012	0.000188	0.000222	0.000104	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.029	4.10	1.51	2.42	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	0.000012	0.0000018	0.000026	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		Not Detected	4.62	2.63	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		----	----	----	844	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		Not Detected	0.0358	0.0265	0.376	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.19	2.99	2.37	14.5	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	0.000027	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	0.000016	0.0000026	0.000058	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	0.00020	0.000017	0.000058	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000049	0.00013	0.000047	0.000086	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		Not Detected	0.0659	0.00171	0.0132	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	0.000056	0.000025	0.00022	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		Not Detected	0.000197	0.000087	0.000044	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		Not Detected	0.00285	0.00035	0.00064	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.00037	0.0145	0.0047	0.0589	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		Not Detected	0.00057	0.00010	0.00013	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.00025	0.0129	0.0065	0.111	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		Not Detected	0.00042	0.00033	0.00014	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		Not Detected	0.00800	0.00762	0.00064	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.000013	0.00860	0.00666	0.206	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	0.0000070	0.0000054	0.0000096	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		Not Detected	0.0068	0.0063	0.0027	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000067	0.0000019	0.0000055	0.000220	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		0.0075	11.2	10.4	40.2	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	0.0000018	0.0000014	0.000226	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00016	0.00013	0.00023	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		Not Detected	0.00016	0.00013	0.00023	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-FIELD02	CR-FDP	CR-REF	SW-17	----
					Client sampling date / time	10-Feb-2024 10:10	10-Feb-2024 12:00	10-Feb-2024 13:30	11-Feb-2024 11:45	----
						WP2403349-006	WP2403349-007	WP2403349-008	WP2403349-009	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		Not Detected	0.000072	0.000055	0.00277	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.000036	0.00162	0.00134	0.00146	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		Not Detected	0.044	0.023	0.110	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		Not Detected	0.000025	0.000044	0.000048	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.00021	0.0020	0.0018	0.0018	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		Not Detected	2.94	2.53	8.64	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.000019	0.00661	0.00306	0.478	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		Not Detected	0.000235	0.000176	0.000101	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		Not Detected	0.00127	0.00114	0.00207	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	0.050	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	0.026	0.016	0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		Not Detected	1.17	0.987	26.6	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		Not Detected	0.00162	0.00142	0.0539	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	0.000108	0.000139	0.000077	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		Not Detected	1.64	1.38	1.71	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	0.0000011	0.0000013	0.0000066	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		0.018	4.69	2.56	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		----	----	----	849	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		Not Detected	0.0312	0.0261	0.359	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		Not Detected	2.56	2.09	11.5	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	0.000028	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	0.0000014	0.0000016	0.000051	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	0.000016	Not Detected	0.000019	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	0.000033	0.000020	0.000029	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		Not Detected	0.00040	0.00018	0.00072	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	0.000026	0.000020	0.000073	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		Not Detected	0.000097	0.000078	0.000027	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		Not Detected	0.00032	0.00024	0.00015	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00066	0.0045	0.0052	0.0539	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-FIELD02	CR-FDP	CR-REF	SW-17	----
					Client sampling date / time	10-Feb-2024 10:10	10-Feb-2024 12:00	10-Feb-2024 13:30	11-Feb-2024 11:45	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403349-006	WP2403349-007	WP2403349-008	WP2403349-009	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		Not Detected	0.00010	0.000094	0.000053	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2403349**	Page	: 1 of 35
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Feb-2024 09:00
PO	: PPR-022-3	Issue Date	: 21-Feb-2024 11:44
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-17	E298	11-Feb-2024	14-Feb-2024	28 days	3 days	✓	14-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DL-REF	E298	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP02	E298	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELD02	E298	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DC-US	E298	09-Feb-2024	14-Feb-2024	28 days	5 days	✓	14-Feb-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	08-Feb-2024	14-Feb-2024	28 days	6 days	✓	14-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	08-Feb-2024	14-Feb-2024	28 days	6 days	✓	14-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-17	E235.Cl-L	11-Feb-2024	13-Feb-2024	28 days	2 days	✓	13-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.Cl-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.Cl-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD02	E235.Cl-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.Cl-L	09-Feb-2024	13-Feb-2024	28 days	4 days	✓	13-Feb-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.Cl-L	08-Feb-2024	13-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	08-Feb-2024	13-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-17	E235.NO3-L	11-Feb-2024	13-Feb-2024	7 days	2 days	✓	13-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.NO3-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.NO3-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD02	E235.NO3-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.NO3-L	09-Feb-2024	13-Feb-2024	7 days	4 days	✓	13-Feb-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO3-L	08-Feb-2024	13-Feb-2024	7 days	5 days	✓	13-Feb-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	08-Feb-2024	13-Feb-2024	7 days	5 days	✓	13-Feb-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-17	E235.NO2-L	11-Feb-2024	13-Feb-2024	7 days	2 days	✓	13-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.NO2-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.NO2-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD02	E235.NO2-L	10-Feb-2024	13-Feb-2024	7 days	3 days	✓	13-Feb-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.NO2-L	09-Feb-2024	13-Feb-2024	7 days	4 days	✓	13-Feb-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-03	E235.NO2-L	08-Feb-2024	13-Feb-2024	7 days	5 days	✓	13-Feb-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO2-L	08-Feb-2024	13-Feb-2024	7 days	5 days	✓	13-Feb-2024	7 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-17	E235.SO4	11-Feb-2024	13-Feb-2024	28 days	2 days	✓	13-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
CR-FDP	E235.SO4	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
CR-REF	E235.SO4	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DL-REF	E235.SO4	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-DUP02	E235.SO4	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-FIELD02	E235.SO4	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DC-US	E235.SO4	09-Feb-2024	13-Feb-2024	28 days	4 days	✓	13-Feb-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-03	E235.SO4	08-Feb-2024	13-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08	E235.SO4	08-Feb-2024	13-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-17	E372-U	11-Feb-2024	14-Feb-2024	28 days	3 days	✓	15-Feb-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-FDP	E372-U	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	15-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-REF	E372-U	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	15-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DL-REF	E372-U	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	15-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-DUP02	E372-U	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	15-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-FIELD02	E372-U	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	15-Feb-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DC-US	E372-U	09-Feb-2024	14-Feb-2024	28 days	5 days	✓	15-Feb-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-03	E372-U	08-Feb-2024	14-Feb-2024	28 days	6 days	✓	15-Feb-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08	E372-U	08-Feb-2024	14-Feb-2024	28 days	6 days	✓	15-Feb-2024	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E339-L	11-Feb-2024	15-Feb-2024	14 days	4 days	✓	15-Feb-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E339-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E339-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD02	E339-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E339-L	09-Feb-2024	15-Feb-2024	14 days	6 days	✓	15-Feb-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	08-Feb-2024	15-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	08-Feb-2024	15-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E333-L	11-Feb-2024	15-Feb-2024	14 days	4 days	✓	15-Feb-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E333-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E333-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD02	E333-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E333-L	09-Feb-2024	15-Feb-2024	14 days	6 days	✓	15-Feb-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	08-Feb-2024	15-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	08-Feb-2024	15-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E336-L	11-Feb-2024	15-Feb-2024	14 days	4 days	✓	15-Feb-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E336-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E336-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD02	E336-L	10-Feb-2024	15-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E336-L	09-Feb-2024	15-Feb-2024	14 days	6 days	✓	15-Feb-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	08-Feb-2024	15-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	08-Feb-2024	15-Feb-2024	14 days	7 days	✓	15-Feb-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.Cr-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-17	E421.Cr-L	11-Feb-2024	16-Feb-2024	180 days	5 days	✓	16-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DC-US	E421.Cr-L	09-Feb-2024	15-Feb-2024	180 days	6 days	✓	15-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP02	E421.Cr-L	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-FIELD02	E421.Cr-L	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-03	E421.Cr-L	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08	E421.Cr-L	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-17	E509	11-Feb-2024	21-Feb-2024	28 days	10 days	✓	21-Feb-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	10-Feb-2024	21-Feb-2024	28 days	11 days	✓	21-Feb-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DL-REF	E509	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP02	E509	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-FIELD02	E509	10-Feb-2024	14-Feb-2024	28 days	4 days	✓	14-Feb-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DC-US	E509	09-Feb-2024	14-Feb-2024	28 days	5 days	✓	14-Feb-2024	28 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	08-Feb-2024	14-Feb-2024	28 days	6 days	✓	14-Feb-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	08-Feb-2024	14-Feb-2024	28 days	6 days	✓	14-Feb-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DL-REF	E421	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-17	E421	11-Feb-2024	16-Feb-2024	180 days	5 days	✓	16-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-US	E421	09-Feb-2024	15-Feb-2024	180 days	6 days	✓	15-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP02	E421	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-FIELD02	E421	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-03	E421	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-08	E421	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.P-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-17	E421.P-L	11-Feb-2024	16-Feb-2024	180 days	5 days	✓	16-Feb-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.P-L	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.P-L	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DC-US	E421.P-L	09-Feb-2024	15-Feb-2024	180 days	6 days	✓	15-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-DUP02	E421.P-L	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-FIELD02	E421.P-L	10-Feb-2024	16-Feb-2024	180 days	6 days	✓	16-Feb-2024	180 days	6 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-03	E421.P-L	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08	E421.P-L	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-17	EF001	11-Feb-2024	----	----	----		13-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	10-Feb-2024	----	----	----		13-Feb-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	10-Feb-2024	----	----	----		13-Feb-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DL-REF	EF001	10-Feb-2024	----	----	----		13-Feb-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-DUP02	EF001	10-Feb-2024	----	----	----		13-Feb-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DC-US	EF001	09-Feb-2024	----	----	----		13-Feb-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-03	EF001	08-Feb-2024	----	----	----		13-Feb-2024	----	5 days	

Matrix: **Water**

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			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	08-Feb-2024	----	----	----		13-Feb-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-17	E358-L	11-Feb-2024	13-Feb-2024	28 days	2 days	✓	13-Feb-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-FDP	E358-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-REF	E358-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DL-REF	E358-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP02	E358-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-FIELD02	E358-L	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DC-US	E358-L	09-Feb-2024	13-Feb-2024	28 days	4 days	✓	13-Feb-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-03	E358-L	08-Feb-2024	13-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	08-Feb-2024	13-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-17	E283	11-Feb-2024	14-Feb-2024	14 days	3 days	✓	15-Feb-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	10-Feb-2024	14-Feb-2024	14 days	4 days	✓	15-Feb-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	10-Feb-2024	14-Feb-2024	14 days	4 days	✓	15-Feb-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE DL-REF	E283	10-Feb-2024	14-Feb-2024	14 days	4 days	✓	15-Feb-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP02	E283	10-Feb-2024	14-Feb-2024	14 days	4 days	✓	15-Feb-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-FIELD02	E283	10-Feb-2024	14-Feb-2024	14 days	4 days	✓	15-Feb-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE DC-US	E283	09-Feb-2024	14-Feb-2024	14 days	5 days	✓	15-Feb-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-03	E283	08-Feb-2024	14-Feb-2024	14 days	6 days	✓	15-Feb-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	08-Feb-2024	14-Feb-2024	14 days	6 days	✓	15-Feb-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-17	E290	11-Feb-2024	13-Feb-2024	14 days	2 days	✓	13-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DL-REF	E290	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-DUP02	E290	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-FIELD02	E290	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DC-US	E290	09-Feb-2024	13-Feb-2024	14 days	4 days	✓	13-Feb-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-03	E290	08-Feb-2024	13-Feb-2024	14 days	5 days	✓	13-Feb-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	08-Feb-2024	13-Feb-2024	14 days	5 days	✓	13-Feb-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-17	E100	11-Feb-2024	13-Feb-2024	28 days	2 days	✓	13-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DL-REF	E100	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP02	E100	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELD02	E100	10-Feb-2024	13-Feb-2024	28 days	3 days	✓	13-Feb-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DC-US	E100	09-Feb-2024	13-Feb-2024	28 days	4 days	✓	13-Feb-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	08-Feb-2024	13-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	08-Feb-2024	13-Feb-2024	28 days	5 days	✓	13-Feb-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-17	E108	11-Feb-2024	13-Feb-2024	14 days	2 days	✓	13-Feb-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DL-REF	E108	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP02	E108	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELD02	E108	10-Feb-2024	13-Feb-2024	14 days	3 days	✓	13-Feb-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DC-US	E108	09-Feb-2024	13-Feb-2024	14 days	4 days	✓	13-Feb-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	08-Feb-2024	13-Feb-2024	14 days	5 days	✓	13-Feb-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	08-Feb-2024	13-Feb-2024	14 days	5 days	✓	13-Feb-2024	14 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-17	E162-L	11-Feb-2024	----	----	----		14-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DL-REF	E162-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP02	E162-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-FIELD02	E162-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DC-US	E162-L	09-Feb-2024	----	----	----		14-Feb-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	08-Feb-2024	----	----	----		14-Feb-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	08-Feb-2024	----	----	----		14-Feb-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-17	E160-L	11-Feb-2024	----	----	----		14-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DL-REF	E160-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP02	E160-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELD02	E160-L	10-Feb-2024	----	----	----		14-Feb-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DC-US	E160-L	09-Feb-2024	----	----	----		14-Feb-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	08-Feb-2024	----	----	----		14-Feb-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	08-Feb-2024	----	----	----		14-Feb-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-17	E420.Cr-L	11-Feb-2024	15-Feb-2024	180 days	4 days	✓	15-Feb-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DL-REF	E420.Cr-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP02	E420.Cr-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD02	E420.Cr-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-US	E420.Cr-L	09-Feb-2024	15-Feb-2024	180 days	6 days	✓	15-Feb-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-17	E508	11-Feb-2024	16-Feb-2024	28 days	5 days	✓	16-Feb-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	10-Feb-2024	16-Feb-2024	28 days	6 days	✓	16-Feb-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	10-Feb-2024	16-Feb-2024	28 days	6 days	✓	16-Feb-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DL-REF	E508	10-Feb-2024	16-Feb-2024	28 days	6 days	✓	16-Feb-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP02	E508	10-Feb-2024	16-Feb-2024	28 days	6 days	✓	16-Feb-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELD02	E508	10-Feb-2024	16-Feb-2024	28 days	6 days	✓	16-Feb-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-US	E508	09-Feb-2024	16-Feb-2024	28 days	7 days	✓	16-Feb-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	08-Feb-2024	16-Feb-2024	28 days	8 days	✓	16-Feb-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	08-Feb-2024	16-Feb-2024	28 days	8 days	✓	16-Feb-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-17	E420	11-Feb-2024	15-Feb-2024	180 days	4 days	✓	15-Feb-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DL-REF	E420	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP02	E420	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD02	E420	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-US	E420	09-Feb-2024	15-Feb-2024	180 days	6 days	✓	15-Feb-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-17	E420.P-L	11-Feb-2024	15-Feb-2024	180 days	4 days	✓	15-Feb-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DL-REF	E420.P-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP02	E420.P-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELD02	E420.P-L	10-Feb-2024	15-Feb-2024	180 days	5 days	✓	15-Feb-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-US	E420.P-L	09-Feb-2024	15-Feb-2024	180 days	6 days	✓	15-Feb-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-08	E420.P-L	08-Feb-2024	15-Feb-2024	180 days	7 days	✓	15-Feb-2024	180 days	7 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1332836	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1331291	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1332972	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1331411	1	11	9.0	5.0	✓
Conductivity in Water	E100	1331289	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1333908	2	15	13.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	2	29	6.9	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1333910	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1331385	1	14	7.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1333909	2	29	6.9	5.0	✓
Free Cyanide (Low Level)	E339-L	1333977	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1331413	0	9	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1331414	0	9	0.0	5.0	✗
pH by Meter	E108	1331290	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1331412	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1332302	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1333804	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1333978	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1335237	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1333802	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1333232	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1333805	0	9	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1333750	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1333976	1	14	7.1	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1332836	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1331291	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1332972	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1331411	1	11	9.0	5.0	✓
Conductivity in Water	E100	1331289	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1333908	2	15	13.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	2	29	6.9	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1333910	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1331385	1	14	7.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1333909	2	29	6.9	5.0	✓
Free Cyanide (Low Level)	E339-L	1333977	1	9	11.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1331413	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1331414	1	9	11.1	5.0	✓
pH by Meter	E108	1331290	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1331412	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1332302	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1333804	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1333978	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1335237	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1333802	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1333232	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1333805	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1333750	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1333976	1	14	7.1	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1332836	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1331291	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1332972	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1331411	1	11	9.0	5.0	✓
Conductivity in Water	E100	1331289	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1333908	2	15	13.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	2	29	6.9	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1333910	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1331385	1	14	7.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1333909	2	29	6.9	5.0	✓
Free Cyanide (Low Level)	E339-L	1333977	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1331413	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1331414	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1331412	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1332302	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1333804	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1333978	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1335237	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1333802	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1333232	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1333805	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1333750	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1333976	1	14	7.1	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1332972	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1331411	1	11	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1333908	2	15	13.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1332444	2	29	6.9	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1333910	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1331385	1	14	7.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1333909	2	29	6.9	5.0	✓
Free Cyanide (Low Level)	E339-L	1333977	1	9	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1331413	0	9	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1331414	0	9	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1331412	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1333804	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1333978	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	1335237	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1333802	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1333232	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1333805	0	9	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1333976	1	14	7.1	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2403349**	Page	: 1 of 23
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Feb-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 13-Feb-2024
C-O-C number	: ----	Issue Date	: 21-Feb-2024 11:45
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Kelly Fischer	Technical Specialist	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1331289)											
WP2403349-001	SW-03	Conductivity	----	E100	1.0	µS/cm	235	235	0.00%	10%	----
Physical Tests (QC Lot: 1331290)											
WP2403349-001	SW-03	pH	----	E108	0.10	pH units	7.71	7.71	0.00%	4%	----
Physical Tests (QC Lot: 1331291)											
WP2403349-001	SW-03	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	124	129	4.04%	20%	----
Physical Tests (QC Lot: 1332302)											
WP2403346-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	190	186	1.86%	20%	----
Physical Tests (QC Lot: 1332836)											
WP2403186-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.4	<2.0	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 1333750)											
WP2403349-001	SW-03	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	20.8	21.4	2.53%	20%	----
Anions and Nutrients (QC Lot: 1331411)											
WP2403347-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.98	1.98	0.273%	20%	----
Anions and Nutrients (QC Lot: 1331412)											
WP2403347-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	5.27	5.36	1.76%	20%	----
Anions and Nutrients (QC Lot: 1332972)											
WP2403349-001	SW-03	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0755	0.0751	0.544%	20%	----
Anions and Nutrients (QC Lot: 1333232)											
WP2403275-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0134	0.0139	0.0005	Diff <2x LOR	----
Cyanides (QC Lot: 1333976)											
WP2403349-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1333977)											
WP2403349-001	SW-03	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1333978)											
WP2403349-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1331385)											
WP2403349-001	SW-03	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	4.60	5.09	0.49	Diff <2x LOR	----
Total Metals (QC Lot: 1333802)											
WP2403288-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1333802) - continued											
WP2403288-001	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000055	0.000051	0.000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	0.856	0.795	7.39%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1333802) - continued											
WP2403288-001	Anonymous	Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1335237)											
WP2403349-001	SW-03	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1332444)											
WP2402956-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1333908)											
WP2403186-006	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00051	0.00050	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1333909)											
WP2403186-006	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	0.444	0.445	0.204%	20%	----
Dissolved Metals (QC Lot: 1333910)											
WP2403186-006	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0585	0.0576	1.69%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00396	0.00393	0.765%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0140	0.0140	0.0155%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000126	0.0000092	0.0000034	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	15.0	15.0	0.401%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00051	0.00050	0.00001	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00068	0.00068	0.000002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00123	0.00118	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.998	1.01	1.47%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000086	0.000088	0.000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0012	0.0011	0.00006	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.57	4.59	0.428%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.150	0.150	0.252%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000185	0.000193	0.000009	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00135	0.00131	0.00004	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.444	0.445	0.0009	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1333910) - continued											
WP2403186-006	Anonymous	Potassium, dissolved	7440-09-7	E421	0.050	mg/L	3.23	3.24	0.271%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00266	0.00270	1.22%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000120	0.000196	0.000076	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.77	3.72	1.28%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.81	4.74	1.38%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0408	0.0390	4.38%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.17	1.21	0.04	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00178	0.00189	0.00010	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000065	0.000064	0.000001	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00083	0.00080	0.00003	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0042	0.0043	0.0001	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00031	0.00030	0.000008	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1335308)											
WP2403349-005	SW-DUP02	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00037	0.00040	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1335309)											
WP2403349-005	SW-DUP02	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1335310)											
WP2403349-005	SW-DUP02	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.103	0.103	0.0484%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00173	0.00183	5.64%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0116	0.0120	3.39%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	13.7	13.6	0.734%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1335310) - continued											
WP2403349-005	SW-DUP02	Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00049	0.00050	0.000007	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00078	0.00078	0.000006	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.815	0.817	0.215%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000118	0.000117	0.0000005	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0025	0.0023	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.76	4.74	0.390%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.160	0.159	0.446%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000200	0.000198	0.000001	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00062	0.00065	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.14	1.12	2.13%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00198	0.00200	0.00002	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000118	0.000120	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.30	3.37	2.10%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.03	2.16	6.13%	20%	MES
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0345	0.0337	2.24%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.73	0.71	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00266	0.00264	0.00002	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000260	0.000255	1.95%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00072	0.00072	0.000002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0034	0.0028	0.0006	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00030	0.00030	0.00000001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1338770)											
WP2403349-008	CR-REF	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1331289)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1331291)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1332302)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1332836)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1333750)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1331411)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1331412)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1331413)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1331414)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1332972)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1333232)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1333976)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1333977)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1333978)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1331385)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1333802)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1333802) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1333802) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1333804)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1333805)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1335237)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1332444)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1333908)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1333909)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1333910)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1333910) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1335308)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1335309)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1335310)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1335310) - continued						
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1338770)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1331289)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1331290)									
pH	----	E108	----	pH units	7 pH units	99.0	98.0	102	----
Physical Tests (QCLot: 1331291)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1332302)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.0	85.0	115	----
Physical Tests (QCLot: 1332836)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	115	85.0	115	----
Physical Tests (QCLot: 1333750)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	96.6	85.0	115	----
Anions and Nutrients (QCLot: 1331411)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1331412)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1331413)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1331414)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1332972)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100.0	85.0	115	----
Anions and Nutrients (QCLot: 1333232)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.8	80.0	120	----
Cyanides (QCLot: 1333976)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	100	80.0	120	----
Cyanides (QCLot: 1333977)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	101	80.0	120	----
Cyanides (QCLot: 1333978)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	96.4	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Organic / Inorganic Carbon (QCLot: 1331385)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	107	80.0	120	----
Total Metals (QCLot: 1333802)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	93.5	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	97.2	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	94.4	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	95.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	93.9	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	89.8	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	93.0	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	93.6	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	92.4	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	93.6	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	95.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.5	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	89.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	93.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	95.8	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	98.0	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	93.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	95.6	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	94.8	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	98.4	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	92.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	96.2	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	93.4	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	94.8	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	89.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	95.2	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.1	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	85.0	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	90.7	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	93.4	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	93.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	94.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1333802) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	93.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	92.6	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	95.4	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	94.5	80.0	120	----
Total Metals (QCLot: 1333804)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	93.6	80.0	120	----
Total Metals (QCLot: 1333805)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	98.4	80.0	120	----
Total Metals (QCLot: 1335237)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	105	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	99.1	80.0	120	----
Dissolved Metals (QCLot: 1333908)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1333910)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	103	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.4	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.3	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	98.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.4	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	91.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1333910) - continued									
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	97.5	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.1	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	96.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.0	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.3	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.2	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.1	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.3	80.0	120	----
Dissolved Metals (QCLot: 1335308)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 1335310)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.7	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	108	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.3	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	111	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.3	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	94.2	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1335310) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	110	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	94.5	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	93.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	100	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	93.7	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.3	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1331411)										
WP2403347-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1331412)										
WP2403347-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1332972)										
WP2403349-001	SW-03	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1333232)										
WP2403349-001	SW-03	Phosphorus, total	7723-14-0	E372-U	0.234 mg/L	0.25 mg/L	93.8	70.0	130	----
Cyanides (QCLot: 1333976)										
WP2403349-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.125 mg/L	0.125 mg/L	99.8	75.0	125	----
Cyanides (QCLot: 1333977)										
WP2403349-001	SW-03	Cyanide, free	----	E339-L	0.124 mg/L	0.125 mg/L	99.2	75.0	125	----
Cyanides (QCLot: 1333978)										
WP2403349-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.240 mg/L	0.25 mg/L	96.2	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1331385)										
WP2403349-002	SW-08	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1333802)										
WP2403288-001	Anonymous	Aluminum, total	7429-90-5	E420	0.210 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0190 mg/L	0.02 mg/L	95.3	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, total	7440-39-3	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0114 mg/L	0.01 mg/L	114	70.0	130	----
		Boron, total	7440-42-8	E420	0.093 mg/L	0.1 mg/L	92.7	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00442 mg/L	0.004 mg/L	110	70.0	130	----
		Calcium, total	7440-70-2	E420	4.35 mg/L	4 mg/L	109	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Copper, total	7440-50-8	E420	0.0222 mg/L	0.02 mg/L	111	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1333802) - continued										
WP2403288-001	Anonymous	Iron, total	7439-89-6	E420	2.18 mg/L	2 mg/L	109	70.0	130	----
		Lead, total	7439-92-1	E420	0.0217 mg/L	0.02 mg/L	109	70.0	130	----
		Lithium, total	7439-93-2	E420	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Magnesium, total	7439-95-4	E420	1.07 mg/L	1 mg/L	107	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0180 mg/L	0.02 mg/L	90.3	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0445 mg/L	0.04 mg/L	111	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.1 mg/L	10 mg/L	101	70.0	130	----
		Potassium, total	7440-09-7	E420	4.10 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0461 mg/L	0.04 mg/L	115	70.0	130	----
		Silicon, total	7440-21-3	E420	9.03 mg/L	10 mg/L	90.3	70.0	130	----
		Silver, total	7440-22-4	E420	0.00388 mg/L	0.004 mg/L	96.9	70.0	130	----
		Sodium, total	7440-23-5	E420	2.08 mg/L	2 mg/L	104	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.6 mg/L	20 mg/L	108	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0383 mg/L	0.04 mg/L	95.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00434 mg/L	0.004 mg/L	108	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0231 mg/L	0.02 mg/L	116	70.0	130	----
		Tin, total	7440-31-5	E420	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00454 mg/L	0.004 mg/L	114	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, total	7440-66-6	E420	0.449 mg/L	0.4 mg/L	112	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0363 mg/L	0.04 mg/L	90.7	70.0	130	----
Total Metals (QCLot: 1335237)										
WP2403349-002	SW-08	Mercury, total	7439-97-6	E508	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 1332444)										
WP2402956-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000957 mg/L	0.0001 mg/L	95.7	70.0	130	----
Dissolved Metals (QCLot: 1333908)										
WP2403186-006	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 1333909)										
WP2403186-006	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.6 mg/L	10 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1333910)										
WP2403186-006	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.199 mg/L	0.2 mg/L	99.3	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00928 mg/L	0.01 mg/L	92.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.086 mg/L	0.1 mg/L	85.9	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.98 mg/L	2 mg/L	99.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0929 mg/L	0.1 mg/L	92.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0181 mg/L	0.02 mg/L	90.7	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.49 mg/L	4 mg/L	112	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0439 mg/L	0.04 mg/L	110	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.73 mg/L	10 mg/L	87.3	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00332 mg/L	0.004 mg/L	83.0	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.4 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0398 mg/L	0.04 mg/L	99.6	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00393 mg/L	0.004 mg/L	98.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0180 mg/L	0.02 mg/L	89.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0357 mg/L	0.04 mg/L	89.3	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0173 mg/L	0.02 mg/L	86.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1333910) - continued										
WP2403186-006	Anonymous	Uranium, dissolved	7440-61-1	E421	0.00381 mg/L	0.004 mg/L	95.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.412 mg/L	0.4 mg/L	103	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0360 mg/L	0.04 mg/L	90.0	70.0	130	----
Dissolved Metals (QCLot: 1335308)										
WP2403349-005	SW-DUP02	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
Dissolved Metals (QCLot: 1335309)										
WP2403349-005	SW-DUP02	Phosphorus, dissolved	7723-14-0	E421.P-L	12.3 mg/L	10 mg/L	123	70.0	130	----
Dissolved Metals (QCLot: 1335310)										
WP2403349-005	SW-DUP02	Aluminum, dissolved	7429-90-5	E421	0.227 mg/L	0.2 mg/L	114	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0237 mg/L	0.02 mg/L	118	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0237 mg/L	0.02 mg/L	118	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0498 mg/L	0.04 mg/L	124	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00473 mg/L	0.004 mg/L	118	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0223 mg/L	0.02 mg/L	112	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.30 mg/L	2 mg/L	115	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.122 mg/L	0.1 mg/L	122	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0455 mg/L	0.04 mg/L	114	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	12.3 mg/L	10 mg/L	123	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.68 mg/L	4 mg/L	117	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0235 mg/L	0.02 mg/L	118	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0476 mg/L	0.04 mg/L	119	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1335310) - continued										
WP2403349-005	SW-DUP02	Silver, dissolved	7440-22-4	E421	0.00421 mg/L	0.004 mg/L	105	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	24.3 mg/L	20 mg/L	122	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00455 mg/L	0.004 mg/L	114	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00436 mg/L	0.004 mg/L	109	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.117 mg/L	0.1 mg/L	117	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.466 mg/L	0.4 mg/L	116	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1338770)										
WP2403349-009	SW-17	Mercury, dissolved	7439-97-6	E509	0.000103 mg/L	0.0001 mg/L	103	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2403349

Telephone : +1 204 255 9720

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Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on we holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: EM/HH

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	✓ SW-03	8-Feb-24	12:50	water	10	X			6.91	0.6	135.7
	✓ SW-08	8-Feb-24	14:00	water	10	X			7.31	0.1	65
	✓ DC-US	9-Feb-24	12:00	water	10		X		7.51	0.4	182.8
	✓ DL-REF	10-Feb-24	10:00	water	10		X		7.66	0.5	355.2
	✓ SW-DUP02	10-Feb-24	10:00	water	10	X			7.66	0.5	355.2
	✓ SW-FIELD02	10-Feb-24	10:10	water	10	X			/	/	/
	✓ CR-FDP	10-Feb-24	12:00	water	10	X			8.18	0	96.5
	✓ CR-REF	10-Feb-24	13:30	water	10	X			8.21	0.3	83.6
	✓ SW-17	11-Feb-24	11:45	water	10		X		7.59	0.6	2617

SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	EM	Feb 12/24	Time:	Received by:	Date: FEB 12 2024	Time: 9:10	Received by:	Time:

9.4

cooler 1/2

Sample Intake Verification Form

Sample Intake						
Client:	Great Bear					
Cheque Enclosed with CoC	Yes	No				
Priority/Emergency Required (circle one)	Yes	No				
Time Sensitive Hold Time (circle one)	Yes	No				
Matrix (circle one)	Water	Soil/solid	Air	Biota	Other	
# of Bottles received: 20						
Green/White	18x50, 19x125	Yellow/Black	18			
Purple/White	18	Light blue/White				
Warm red/White	18	Orange/Black				
Dark Green/White	9	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2403718**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 15-Feb-2024 09:30
PO	: PPR-022-3	Date Analysis Commenced	: 15-Feb-2024
C-O-C number	: ----	Issue Date	: 26-Feb-2024 14:41
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	DUP-03	FIELD-03	PL-02	PL-05
					Client sampling date / time	13-Feb-2024 09:00	13-Feb-2024 09:00	13-Feb-2024 09:10	13-Feb-2024 11:20	13-Feb-2024 14:00
						WP2403718-001	WP2403718-002	WP2403718-003	WP2403718-004	WP2403718-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.85	7.85	----	7.85	7.93
Temperature, field	----	EF001/WP	0.10	°C		0.10	0.10	----	0.43	0.66
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.1	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		34.9	32.9	<1.0	41.0	40.5
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		34.9	32.9	<1.0	41.0	40.5
Conductivity	----	E100/WP	1.0	µS/cm		94.4	98.0	Not Detected	103	97.2
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		43.3	42.6	<0.50	47.0	45.7
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		42.7	42.6	<0.50	47.3	44.8
pH	----	E108/WP	0.10	pH units		7.28	6.95	5.50	7.50	7.68
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		63.0	70.0	<3.0	77.7	68.3
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.3	3.6	<1.0	1.0	1.1
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0173	0.0114	0.0058	0.0104	0.0080
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.73	2.75	0.042	2.52	1.73
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0892	0.0891	<0.0050	0.0626	0.0631
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0892	0.0891	<0.0051	0.0626	0.0631
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0209	0.0204	<0.0020	0.0216	0.0186
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		5.82	5.83	<0.30	4.28	3.41
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	DUP-03	FIELD-03	PL-02	PL-05
					Client sampling date / time	13-Feb-2024 09:00	13-Feb-2024 09:00	13-Feb-2024 09:10	13-Feb-2024 11:20	13-Feb-2024 14:00
						WP2403718-001	WP2403718-002	WP2403718-003	WP2403718-004	WP2403718-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.3	12.0	<0.50	11.7	12.1
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.132	0.137	0.0011	0.0526	0.0367
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00030	0.00030	0.000012	0.00025	0.00022
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00807	0.00795	0.000021	0.00567	0.00562
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00875	0.00837	Not Detected	0.00988	0.00952
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000094	0.0000085	0.00000020	0.0000061	0.0000053
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000017	0.0000011	Not Detected	0.0000016	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0100	0.0088	0.0014	0.0078	0.0072
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000024	0.0000017	Not Detected	0.0000028	0.0000018
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.9	11.9	Not Detected	13.4	12.7
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000016	0.000016	0.0000012	0.0000061	0.0000030
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00045	0.00039	<0.00010	0.00027	0.00027
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00045	0.00039	Not Detected	0.00027	0.00027
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00013	0.00011	Not Detected	0.000062	0.000038
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00168	0.00146	Not Detected	0.00130	0.00132
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.193	0.189	Not Detected	0.086	0.036
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000108	0.000071	Not Detected	0.000056	0.000021
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0024	0.0028	0.00036	0.0021	0.0020
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.15	3.13	0.0011	3.36	3.18
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0105	0.0107	Not Detected	0.00573	0.00161
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000194	0.000196	Not Detected	0.000210	0.000254
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00160	0.00135	Not Detected	0.00099	0.00088
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.030	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.026	0.030	0.0089	0.020	0.023
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.11	1.12	Not Detected	1.13	1.12
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00180	0.00189	Not Detected	0.00181	0.00180

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	DUP-03	FIELD-03	PL-02	PL-05
					Client sampling date / time	13-Feb-2024 09:00	13-Feb-2024 09:00	13-Feb-2024 09:10	13-Feb-2024 11:20	13-Feb-2024 14:00
						WP2403718-001	WP2403718-002	WP2403718-003	WP2403718-004	WP2403718-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000097	0.000086	0.000014	0.000090	0.000094
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.05	2.11	0.030	1.91	1.60
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000017	0.0000022	Not Detected	0.0000021	0.0000011
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.34	2.67	0.012	2.50	2.21
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0308	0.0298	Not Detected	0.0303	0.0276
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.98	2.15	0.11	1.82	1.48
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000030	0.0000027	Not Detected	0.0000023	0.0000018
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000024	0.000030	Not Detected	0.000017	0.000013
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000030	0.000019	Not Detected	0.000018	0.000017
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00637	0.00700	Not Detected	0.00216	0.00089
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000023	0.000025	Not Detected	0.000018	0.000019
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000116	0.000110	Not Detected	0.000090	0.000088
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00064	0.00066	0.00014	0.00045	0.00055
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0025	0.0033	0.00045	0.0027	0.0016
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00017	0.00015	Not Detected	0.00012	0.00012
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0096	0.0092	0.00090	0.0147	0.0170
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00029	0.00029	Not Detected	0.00025	0.00021
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00786	0.00789	Not Detected	0.00548	0.00575
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00805	0.00808	0.00011	0.00945	0.00902
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000037	0.0000053	Not Detected	0.0000041	0.0000071
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0092	0.0090	0.0010	0.0074	0.0074
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.00000071	0.00000094	0.00000053	0.0000030	0.0000013
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.2	12.0	0.027	13.5	13.1
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	0.0000015	0.0000012	0.0000015	0.0000018
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00012	0.00011	<0.00010	0.00014	0.00020
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00012	0.00011	Not Detected	0.00014	0.00020
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000060	0.000062	0.000013	0.000040	0.000028

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	DUP-03	FIELD-03	PL-02	PL-05
					Client sampling date / time	13-Feb-2024 09:00	13-Feb-2024 09:00	13-Feb-2024 09:10	13-Feb-2024 11:20	13-Feb-2024 14:00
						WP2403718-001	WP2403718-002	WP2403718-003	WP2403718-004	WP2403718-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00116	0.00117	0.000088	0.00120	0.00123
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.046	0.048	Not Detected	0.039	0.020
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000016	0.000015	0.0000074	0.000013	0.000013
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0026	0.0025	0.00047	0.0024	0.0022
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.11	3.06	0.0029	3.24	3.16
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00714	0.00707	0.00016	0.00250	0.00044
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000213	0.000226	Not Detected	0.000228	0.000278
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00110	0.00111	0.00015	0.00100	0.00085
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.012	0.011	Not Detected	Not Detected	0.013
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.11	1.09	0.027	1.13	1.14
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00177	0.00164	Not Detected	0.00163	0.00172
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000086	0.000101	Not Detected	0.000092	0.000100
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.73	1.75	Not Detected	1.72	1.52
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000026	Not Detected	Not Detected	Not Detected	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.67	2.57	0.038	2.46	2.26
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0321	0.0311	0.000032	0.0317	0.0293
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.25	2.17	Not Detected	1.66	1.32
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000017	0.0000012	Not Detected	0.0000016	0.0000017
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000013	0.000014	Not Detected	0.000013	0.000014
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000012	0.000012	0.000013	0.000025	0.000013
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00031	0.00024	Not Detected	0.00041	0.00030
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000023	0.000020	Not Detected	0.000016	0.000018
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000101	0.000096	Not Detected	0.000090	0.000083
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00026	0.00026	Not Detected	0.00026	0.00041
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0011	0.0013	0.0015	0.0022	0.0035
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00010	0.000098	Not Detected	0.00012	0.00012
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	PL-01	DUP-03	FIELD-03	PL-02	PL-05
					Client sampling date / time	13-Feb-2024 09:00	13-Feb-2024 09:00	13-Feb-2024 09:10	13-Feb-2024 11:20	13-Feb-2024 14:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403718-001	WP2403718-002	WP2403718-003	WP2403718-004	WP2403718-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2403718**	Page	: 1 of 25
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 15-Feb-2024 09:30
PO	: PPR-022-3	Issue Date	: 26-Feb-2024 14:43
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Matrix Spike (MS) Recoveries								
Total Metals	Anonymous	Anonymous	Phosphorus, total	7723-14-0	E420	131 % MES	70.0-130%	Recovery greater than upper data quality objective

Result Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-03	E298	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) FIELD-03	E298	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-01	E298	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-02	E298	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-05	E298	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-03	E235.Cl-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-03	E235.Cl-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-01	E235.Cl-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-02	E235.Cl-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-05	E235.Cl-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-03	E235.NO3-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
FIELD-03	E235.NO3-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-01	E235.NO3-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-02	E235.NO3-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-05	E235.NO3-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-03	E235.NO2-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
FIELD-03	E235.NO2-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-01	E235.NO2-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-02	E235.NO2-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
PL-05	E235.NO2-L	13-Feb-2024	15-Feb-2024	7 days	2 days	✓	15-Feb-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP-03	E235.SO4	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
FIELD-03	E235.SO4	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
PL-01	E235.SO4	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
PL-02	E235.SO4	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
PL-05	E235.SO4	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-03	E372-U	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	20-Feb-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) FIELD-03	E372-U	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	20-Feb-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-01	E372-U	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	20-Feb-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-02	E372-U	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	20-Feb-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-05	E372-U	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	20-Feb-2024	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-03	E339-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) FIELD-03	E339-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-01	E339-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-02	E339-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-05	E339-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-03	E333-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) FIELD-03	E333-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-01	E333-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-02	E333-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-05	E333-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-03	E336-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) FIELD-03	E336-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-01	E336-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E336-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E336-L	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	20-Feb-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-03	E421.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
FIELD-03	E421.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-01	E421.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-02	E421.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-05	E421.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DUP-03	E509	13-Feb-2024	21-Feb-2024	28 days	8 days	✓	21-Feb-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
FIELD-03	E509	13-Feb-2024	21-Feb-2024	28 days	8 days	✓	21-Feb-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-01	E509	13-Feb-2024	21-Feb-2024	28 days	8 days	✓	21-Feb-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-02	E509	13-Feb-2024	21-Feb-2024	28 days	8 days	✓	21-Feb-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-05	E509	13-Feb-2024	21-Feb-2024	28 days	8 days	✓	21-Feb-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-03	E421	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) FIELD-03	E421	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-01	E421	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-02	E421	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-05	E421	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-03	E421.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
FIELD-03	E421.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-01	E421.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-02	E421.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-05	E421.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-03	EF001	13-Feb-2024	----	----	----		15-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-01	EF001	13-Feb-2024	----	----	----		15-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-02	EF001	13-Feb-2024	----	----	----		15-Feb-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-05	EF001	13-Feb-2024	----	----	----		15-Feb-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-03	E358-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) FIELD-03	E358-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-01	E358-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-02	E358-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-05	E358-L	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP-03	E283	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	26-Feb-2024	14 days	13 days	✓
Physical Tests : Acidity by Titration										
HDPE FIELD-03	E283	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	26-Feb-2024	14 days	13 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-01	E283	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	26-Feb-2024	14 days	13 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-02	E283	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	26-Feb-2024	14 days	13 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-05	E283	13-Feb-2024	20-Feb-2024	14 days	7 days	✓	26-Feb-2024	14 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-03	E290	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] FIELD-03	E290	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-01	E290	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-02	E290	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-05	E290	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-03	E100	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] FIELD-03	E100	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-01	E100	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-02	E100	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-05	E100	13-Feb-2024	15-Feb-2024	28 days	2 days	✓	15-Feb-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-03	E108	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] FIELD-03	E108	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-01	E108	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-02	E108	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-05	E108	13-Feb-2024	15-Feb-2024	14 days	2 days	✓	15-Feb-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-03	E162-L	13-Feb-2024	----	----	----		16-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] FIELD-03	E162-L	13-Feb-2024	----	----	----		16-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-01	E162-L	13-Feb-2024	----	----	----		16-Feb-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-02	E162-L	13-Feb-2024	----	----	----		16-Feb-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-05	E162-L	13-Feb-2024	----	----	----		16-Feb-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-03	E160-L	13-Feb-2024	----	----	----		15-Feb-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] FIELD-03	E160-L	13-Feb-2024	----	----	----		15-Feb-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-01	E160-L	13-Feb-2024	----	----	----		15-Feb-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-02	E160-L	13-Feb-2024	----	----	----		15-Feb-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-05	E160-L	13-Feb-2024	----	----	----		15-Feb-2024	7 days	2 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-03	E420.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) FIELD-03	E420.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-01	E420.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-02	E420.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-05	E420.Cr-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-03	E508	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) FIELD-03	E508	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-01	E508	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-02	E508	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-05	E508	13-Feb-2024	16-Feb-2024	28 days	3 days	✓	16-Feb-2024	28 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-03	E420	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) FIELD-03	E420	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-01	E420	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-02	E420	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-05	E420	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-03	E420.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) FIELD-03	E420.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-01	E420.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-02	E420.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-05	E420.P-L	13-Feb-2024	16-Feb-2024	180 days	3 days	✓	16-Feb-2024	180 days	3 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1337864	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1335192	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1335688	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1334519	0	7	0.0	5.0	✗
Conductivity in Water	E100	1335193	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1335308	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1338770	1	9	11.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1335310	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1334260	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1335309	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1337890	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1334514	1	10	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1334515	1	10	10.0	5.0	✓
pH by Meter	E108	1335191	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1334512	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1335151	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1335305	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1337891	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1335237	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1335303	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1337320	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1335306	0	7	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1335150	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1337889	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1337864	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1335192	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1335688	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1334519	1	7	14.2	5.0	✓
Conductivity in Water	E100	1335193	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1335308	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1338770	1	9	11.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1335310	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1334260	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1335309	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1337890	1	8	12.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1334514	1	10	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1334515	1	10	10.0	5.0	✓
pH by Meter	E108	1335191	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1334512	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1335151	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1335305	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1337891	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1335237	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1335303	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1337320	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1335306	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1335150	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1337889	1	13	7.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1337864	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1335192	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1335688	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1334519	1	7	14.2	5.0	✓
Conductivity in Water	E100	1335193	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1335308	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1338770	1	9	11.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1335310	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1334260	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1335309	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1337890	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1334514	1	10	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1334515	1	10	10.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1334512	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1335151	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1335305	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1337891	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1335237	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1335303	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1337320	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1335306	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1335150	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1337889	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1335688	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1334519	0	7	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1335308	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1338770	1	9	11.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1335310	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1334260	1	17	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1335309	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1337890	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1334514	1	10	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1334515	1	10	10.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1334512	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1335305	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1337891	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1335237	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1335303	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1337320	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1335306	0	7	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1337889	1	13	7.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2403718**	Page	: 1 of 18
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 15-Feb-2024 09:30
PO	: PPR-022-3	Date Analysis Commenced	: 15-Feb-2024
C-O-C number	: ----	Issue Date	: 26-Feb-2024 14:41
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1335150)											
WP2403666-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1335151)											
WP2403656-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	644	632	1.88%	20%	----
Physical Tests (QC Lot: 1335191)											
WP2403718-001	PL-01	pH	----	E108	0.10	pH units	7.28	7.30	0.274%	4%	----
Physical Tests (QC Lot: 1335192)											
WP2403718-001	PL-01	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	34.9	33.0	5.60%	20%	----
Physical Tests (QC Lot: 1335193)											
WP2403718-001	PL-01	Conductivity	----	E100	1.0	µS/cm	94.4	95.1	0.739%	10%	----
Physical Tests (QC Lot: 1337864)											
WP2403582-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1334512)											
WP2403656-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	106	106	0.523%	20%	----
Anions and Nutrients (QC Lot: 1334514)											
WP2403656-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0058	0.0056	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1334515)											
WP2403656-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1335688)											
WP2403718-003	FIELD-03	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0058	0.0070	0.0011	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1337320)											
WP2403718-001	PL-01	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0209	0.0204	2.08%	20%	----
Cyanides (QC Lot: 1337889)											
WP2403718-001	PL-01	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1337890)											
WP2403718-001	PL-01	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1337891)											
WP2403718-001	PL-01	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1334260)											
WP2403502-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	6.44	6.24	3.16%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1335237)											
WP2403349-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1335303)											
WP2403589-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0070	0.0067	0.0004	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00675	0.00647	4.21%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0298	0.0296	0.573%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.506	0.538	6.09%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000064	0.0000066	0.0000003	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	39.6	38.9	1.78%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00115	0.00109	0.00006	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.012	0.012	0.000010	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0138	0.0155	11.6%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	26.1	24.8	5.18%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0199	0.0190	4.75%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.0187	0.0189	0.878%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.0221	0.0202	8.77%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	22.9	22.1	3.40%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0115	0.0106	7.66%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000476	0.000406	0.000070	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.06	3.93	3.13%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	160	152	5.14%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.158	0.166	5.19%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	130	127	2.28%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000011	0.000011	0.0000002	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1335303) - continued											
WP2403589-003	Anonymous	Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00052	0.00051	0.000006	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00947	0.00926	2.17%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00095	0.00086	0.00008	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1335308)											
WP2403349-005	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00037	0.00040	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1335309)											
WP2403349-005	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1335310)											
WP2403349-005	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.103	0.103	0.0484%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00173	0.00183	5.64%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0116	0.0120	3.39%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	13.7	13.6	0.734%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00049	0.00050	0.000007	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00078	0.00078	0.000006	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.815	0.817	0.215%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000118	0.000117	0.0000005	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0025	0.0023	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.76	4.74	0.390%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.160	0.159	0.446%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000200	0.000198	0.000001	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00062	0.00065	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.14	1.12	2.13%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1335310) - continued											
WP2403349-005	Anonymous	Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00198	0.00200	0.00002	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000118	0.000120	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.30	3.37	2.10%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.03	2.16	6.13%	20%	MES
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0345	0.0337	2.24%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.73	0.71	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00266	0.00264	0.00002	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000260	0.000255	1.95%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00072	0.00072	0.000002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0034	0.0028	0.0006	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00030	0.00030	0.00000001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1338770)											
WP2403349-008	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1335150)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1335151)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1335192)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1335193)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1337864)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1334512)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1334514)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1334515)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1334519)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1335688)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1337320)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1337889)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1337890)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1337891)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1334260)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1335237)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1335303)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1335303) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1335303) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1335305)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1335306)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1335308)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1335309)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1335310)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1335310) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1338770)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1335150)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.9	85.0	115	----
Physical Tests (QCLot: 1335151)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.0	85.0	115	----
Physical Tests (QCLot: 1335191)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1335192)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	103	85.0	115	----
Physical Tests (QCLot: 1335193)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1337864)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	111	85.0	115	----
Anions and Nutrients (QCLot: 1334512)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1334514)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1334515)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1334519)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1335688)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 1337320)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	92.4	80.0	120	----
Cyanides (QCLot: 1337889)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.0	80.0	120	----
Cyanides (QCLot: 1337890)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	99.8	80.0	120	----
Cyanides (QCLot: 1337891)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	83.9	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Organic / Inorganic Carbon (QCLot: 1334260)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	93.8	80.0	120	----
Total Metals (QCLot: 1335237)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	105	80.0	120	----
Total Metals (QCLot: 1335303)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	97.0	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	99.2	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.9	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.5	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	110	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	104	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.9	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1335303) - continued									
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	103	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.9	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.8	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Total Metals (QCLot: 1335305)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1335306)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	110	80.0	120	----
Dissolved Metals (QCLot: 1335308)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 1335310)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.7	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	108	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.3	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	111	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.3	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	94.2	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.4	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	110	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1335310) - continued									
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	94.5	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	93.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	100	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	93.7	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.3	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1334512)										
WP2403656-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	100 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 1334514)										
WP2403656-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.53 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1334515)										
WP2403656-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.490 mg/L	0.5 mg/L	98.1	75.0	125	----
Anions and Nutrients (QCLot: 1335688)										
WP2403718-003	FIELD-03	Ammonia, total (as N)	7664-41-7	E298	0.0986 mg/L	0.1 mg/L	98.6	75.0	125	----
Anions and Nutrients (QCLot: 1337320)										
WP2403718-002	DUP-03	Phosphorus, total	7723-14-0	E372-U	0.234 mg/L	0.25 mg/L	93.5	70.0	130	----
Cyanides (QCLot: 1337889)										
WP2403718-001	PL-01	Cyanide, weak acid dissociable	----	E336-L	0.116 mg/L	0.125 mg/L	93.2	75.0	125	----
Cyanides (QCLot: 1337890)										
WP2403718-001	PL-01	Cyanide, free	----	E339-L	0.124 mg/L	0.125 mg/L	99.0	75.0	125	----
Cyanides (QCLot: 1337891)										
WP2403718-001	PL-01	Cyanide, strong acid dissociable (Total)	----	E333-L	0.213 mg/L	0.25 mg/L	85.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1334260)										
WP2403502-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1335237)										
WP2403349-002	Anonymous	Mercury, total	7439-97-6	E508	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----
Total Metals (QCLot: 1335303)										
WP2403589-003	Anonymous	Aluminum, total	7429-90-5	E420	0.247 mg/L	0.2 mg/L	123	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0238 mg/L	0.02 mg/L	119	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0481 mg/L	0.04 mg/L	120	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00991 mg/L	0.01 mg/L	99.1	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00453 mg/L	0.004 mg/L	113	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1335303) - continued										
WP2403589-003	Anonymous	Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0112 mg/L	0.01 mg/L	112	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0487 mg/L	0.04 mg/L	122	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0232 mg/L	0.02 mg/L	116	70.0	130	----
		Copper, total	7440-50-8	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Iron, total	7439-89-6	E420	2.40 mg/L	2 mg/L	120	70.0	130	----
		Lead, total	7439-92-1	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, total	7439-93-2	E420	0.126 mg/L	0.1 mg/L	126	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0235 mg/L	0.02 mg/L	118	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
		Phosphorus, total	7723-14-0	E420	13.1 mg/L	10 mg/L	131	70.0	130	MES
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0233 mg/L	0.02 mg/L	116	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0485 mg/L	0.04 mg/L	121	70.0	130	----
		Silicon, total	7440-21-3	E420	10.7 mg/L	10 mg/L	107	70.0	130	----
		Silver, total	7440-22-4	E420	0.00411 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00418 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Tin, total	7440-31-5	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0456 mg/L	0.04 mg/L	114	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0191 mg/L	0.02 mg/L	95.5	70.0	130	----
		Uranium, total	7440-61-1	E420	ND mg/L	0.004 mg/L	ND	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.126 mg/L	0.1 mg/L	126	70.0	130	----
		Zinc, total	7440-66-6	E420	0.448 mg/L	0.4 mg/L	112	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1335308)										
WP2403349-005	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
Dissolved Metals (QCLot: 1335309)										
WP2403349-005	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	12.3 mg/L	10 mg/L	123	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1335310)										
WP2403349-005	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.227 mg/L	0.2 mg/L	114	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0237 mg/L	0.02 mg/L	118	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0237 mg/L	0.02 mg/L	118	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0498 mg/L	0.04 mg/L	124	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00473 mg/L	0.004 mg/L	118	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0223 mg/L	0.02 mg/L	112	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.30 mg/L	2 mg/L	115	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.122 mg/L	0.1 mg/L	122	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0455 mg/L	0.04 mg/L	114	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	12.3 mg/L	10 mg/L	123	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.68 mg/L	4 mg/L	117	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0235 mg/L	0.02 mg/L	118	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0476 mg/L	0.04 mg/L	119	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00421 mg/L	0.004 mg/L	105	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	24.3 mg/L	20 mg/L	122	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00455 mg/L	0.004 mg/L	114	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1335310) - continued										
WP2403349-005	Anonymous	Uranium, dissolved	7440-61-1	E421	0.00436 mg/L	0.004 mg/L	109	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.117 mg/L	0.1 mg/L	117	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.466 mg/L	0.4 mg/L	116	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1338770)										
WP2403349-009	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000103 mg/L	0.0001 mg/L	103	70.0	130	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharg
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharg
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharg
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush su
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests holidays and for non-routi
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for a**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	**Analysis Request**
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer **Sampler:** EM/HH

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	PL-01	13-02-24	9:00	water	10	X			7.85	0.1	53.5
	DUP-03	13-02-24	9:00	water	10	X			7.85	0.1	53.5
	Field-03	13-02-24	9:10	water	10	X			\	\	\
	PL-02	13-02-24	11:20	water	10	X			7.85	0.43	72.5
	PL-05	13-02-24	14:00	water	10	X			7.93	0.66	55.6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: J McFee	Feb 14th 2024	Time: 10:30	Received by:	Date: FEB 15 2024	Time:	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2403718

Telephone : +1 204 255 9720

Sample Intake						
Client:	Great Bear					
Cheque Enclosed with CoC		Yes	No			
Priority/Emergency Required (circle one)		Yes	No			
Time Sensitive Hold Time (circle one)		Yes	No			
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White	5x50, 5x125	Yellow/Black	10x40			
Purple/White	10x100	Light blue/White				
Warm red/White	10x125	Orange/Black				
Dark Green/White	5x60	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2403955**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Feb-2024 10:30
PO	: PPR-022-3	Date Analysis Commenced	: 20-Feb-2024
C-O-C number	: ----	Issue Date	: 26-Feb-2024 15:24
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-03	PL-04	----	----	----
					Client sampling date / time	14-Feb-2024 11:05	14-Feb-2024 12:45	----	----	----
						WP2403955-001	WP2403955-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		8.01	8.02	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		0.40	<0.10	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.3	2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		37.8	36.9	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		37.8	36.9	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		96.7	88.4	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		41.0	37.8	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		43.4	40.6	----	----	----
pH	----	E108/WP	0.10	pH units		7.51	7.61	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		62.2	63.8	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.4	<1.0	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0068	0.0210	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.36	1.51	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0716	0.0822	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0730	0.0846	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0014	0.0024	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0217	0.0223	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		4.88	3.17	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	PL-03	PL-04	----	----	----
					Client sampling date / time	14-Feb-2024 11:05	14-Feb-2024 12:45	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403955-001	WP2403955-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.7	11.3	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0365	0.0322	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00028	0.00019	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00748	0.00546	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00933	0.00894	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000047	0.0000026	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		Not Detected	0.0000043	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.012	0.0084	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000033	0.0000043	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.3	11.7	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.0000030	0.0000021	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00025	0.00020	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00025	0.00020	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000058	0.000037	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00145	0.00135	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.055	0.033	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000028	0.000020	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0022	0.0019	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.09	2.77	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00387	0.00205	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000229	0.000219	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00116	0.00086	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.024	0.022	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.18	1.06	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00172	0.00163	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-03	PL-04	----	----	----
					Client sampling date / time	14-Feb-2024 11:05	14-Feb-2024 12:45	----	----	----
						WP2403955-001	WP2403955-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000099	0.000105	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.65	1.27	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.66	2.03	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0317	0.0273	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.84	1.74	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000013	Not Detected	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000094	0.000021	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00102	0.00078	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000013	Not Detected	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000095	0.000086	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00071	0.00070	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0018	0.0018	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00012	0.00012	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0122	0.0157	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00030	0.00021	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00706	0.00525	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00847	0.00848	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000049	0.0000051	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0065	0.0053	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000032	0.0000024	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.4	10.8	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000035	0.0000013	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00012	0.00011	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00012	0.00011	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000041	0.000031	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	PL-03	PL-04	----	----	----
					Client sampling date / time	14-Feb-2024 11:05	14-Feb-2024 12:45	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403955-001	WP2403955-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00128	0.00111	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.024	0.016	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000013	0.000013	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0011	0.00087	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.04	2.64	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00146	0.00119	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000214	0.000236	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00097	0.00070	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	0.011	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.21	1.02	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00180	0.00166	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000065	0.000066	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.40	1.11	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	0.0000013	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.47	1.83	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0297	0.0249	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.74	1.14	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000024	0.0000012	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000014	0.000012	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000017	0.000023	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00023	0.00039	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000024	0.000018	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000088	0.000075	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00029	0.00036	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0029	0.0018	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00010	0.00010	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	PL-03	PL-04	----	----	----
					Client sampling date / time	14-Feb-2024 11:05	14-Feb-2024 12:45	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2403955-001	WP2403955-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2403955**	Page	: 1 of 16
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Feb-2024 10:30
PO	: PPR-022-3	Issue Date	: 26-Feb-2024 15:24
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG4-1340494 001	----	Selenium, total	7782-49-2	E420	0.000124 B mg/L	0.00005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-MRG3-1342045 002	----	Iron, dissolved	7439-89-6	E421	78.2 % MES	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-03	E298	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-04	E298	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.Cl-L	14-Feb-2024	20-Feb-2024	28 days	6 days	✓	20-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.Cl-L	14-Feb-2024	20-Feb-2024	28 days	6 days	✓	20-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.NO3-L	14-Feb-2024	20-Feb-2024	7 days	6 days	✓	20-Feb-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.NO3-L	14-Feb-2024	20-Feb-2024	7 days	6 days	✓	20-Feb-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.NO2-L	14-Feb-2024	20-Feb-2024	7 days	6 days	✓	20-Feb-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.NO2-L	14-Feb-2024	20-Feb-2024	7 days	6 days	✓	20-Feb-2024	7 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-03	E235.SO4	14-Feb-2024	20-Feb-2024	28 days	6 days	✓	20-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-04	E235.SO4	14-Feb-2024	20-Feb-2024	28 days	6 days	✓	20-Feb-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-03	E372-U	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	22-Feb-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-04	E372-U	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	22-Feb-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-03	E339-L	14-Feb-2024	23-Feb-2024	14 days	9 days	✓	26-Feb-2024	14 days	12 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-04	E339-L	14-Feb-2024	23-Feb-2024	14 days	9 days	✓	26-Feb-2024	14 days	12 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-03	E333-L	14-Feb-2024	23-Feb-2024	14 days	9 days	✓	26-Feb-2024	14 days	12 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-04	E333-L	14-Feb-2024	23-Feb-2024	14 days	9 days	✓	26-Feb-2024	14 days	12 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-03	E336-L	14-Feb-2024	23-Feb-2024	14 days	9 days	✓	26-Feb-2024	14 days	12 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-04	E336-L	14-Feb-2024	23-Feb-2024	14 days	9 days	✓	26-Feb-2024	14 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-03	E421.Cr-L	14-Feb-2024	23-Feb-2024	180 days	9 days	✓	23-Feb-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-04	E421.Cr-L	14-Feb-2024	23-Feb-2024	180 days	9 days	✓	23-Feb-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-03	E509	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-04	E509	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-03	E421	14-Feb-2024	23-Feb-2024	180 days	9 days	✓	23-Feb-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-04	E421	14-Feb-2024	23-Feb-2024	180 days	9 days	✓	23-Feb-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-03	E421.P-L	14-Feb-2024	23-Feb-2024	180 days	9 days	✓	23-Feb-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-04	E421.P-L	14-Feb-2024	23-Feb-2024	180 days	9 days	✓	23-Feb-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-03	EF001	14-Feb-2024	----	----	----		20-Feb-2024	----	6 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-04	EF001	14-Feb-2024	----	----	----		20-Feb-2024	----	6 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
PL-03	E358-L	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
PL-04	E358-L	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
PL-03	E283	14-Feb-2024	24-Feb-2024	14 days	10 days	✓	26-Feb-2024	14 days	12 days	✓
Physical Tests : Acidity by Titration										
HDPE										
PL-04	E283	14-Feb-2024	24-Feb-2024	14 days	10 days	✓	26-Feb-2024	14 days	12 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
PL-03	E290	14-Feb-2024	21-Feb-2024	14 days	7 days	✓	21-Feb-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
PL-04	E290	14-Feb-2024	21-Feb-2024	14 days	7 days	✓	21-Feb-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-03	E100	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-04	E100	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-03	E108	14-Feb-2024	21-Feb-2024	14 days	7 days	✓	21-Feb-2024	14 days	7 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-04	E108	14-Feb-2024	21-Feb-2024	14 days	7 days	✓	21-Feb-2024	14 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-03	E162-L	14-Feb-2024	----	----	----		21-Feb-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-04	E162-L	14-Feb-2024	----	----	----		21-Feb-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-03	E160-L	14-Feb-2024	----	----	----		21-Feb-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-04	E160-L	14-Feb-2024	----	----	----		21-Feb-2024	7 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-03	E420.Cr-L	14-Feb-2024	22-Feb-2024	180 days	8 days	✓	22-Feb-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-04	E420.Cr-L	14-Feb-2024	22-Feb-2024	180 days	8 days	✓	22-Feb-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-03	E508	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-04	E508	14-Feb-2024	21-Feb-2024	28 days	7 days	✓	21-Feb-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-03	E420	14-Feb-2024	22-Feb-2024	180 days	8 days	✓	22-Feb-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-04	E420	14-Feb-2024	22-Feb-2024	180 days	8 days	✓	22-Feb-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-03	E420.P-L	14-Feb-2024	22-Feb-2024	180 days	8 days	✓	22-Feb-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-04	E420.P-L	14-Feb-2024	22-Feb-2024	180 days	8 days	✓	22-Feb-2024	180 days	8 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1343580	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1337924	1	6	16.6	5.0	✓
Ammonia by Fluorescence	E298	1339380	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1338722	0	2	0.0	5.0	✗
Conductivity in Water	E100	1337923	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1342047	0	2	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1338770	1	9	11.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1342046	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1338808	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1342045	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1342013	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1338720	0	2	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1338721	0	2	0.0	5.0	✗
pH by Meter	E108	1337922	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1338719	1	8	12.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1338707	1	8	12.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1340495	0	2	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1342011	1	6	16.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1338769	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1340494	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1339576	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1340496	0	2	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1338706	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1342012	1	2	50.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1343580	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1337924	1	6	16.6	5.0	✓
Ammonia by Fluorescence	E298	1339380	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1338722	1	2	50.0	5.0	✓
Conductivity in Water	E100	1337923	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1342047	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1338770	1	9	11.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1342046	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1338808	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1342045	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1342013	1	2	50.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1338720	1	2	50.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1338721	1	2	50.0	5.0	✓
pH by Meter	E108	1337922	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1338719	1	8	12.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1338707	1	8	12.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1340495	1	2	50.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1342011	1	6	16.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1338769	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1340494	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1339576	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1340496	1	2	50.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1338706	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1342012	1	2	50.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1343580	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1337924	1	6	16.6	5.0	✓
Ammonia by Fluorescence	E298	1339380	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1338722	1	2	50.0	5.0	✓
Conductivity in Water	E100	1337923	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1342047	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1338770	1	9	11.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1342046	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1338808	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1342045	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1342013	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1338720	1	2	50.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1338721	1	2	50.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1338719	1	8	12.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1338707	1	8	12.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1340495	1	2	50.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1342011	1	6	16.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1338769	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1340494	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1339576	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1340496	1	2	50.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1338706	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1342012	1	2	50.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1339380	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1338722	0	2	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1342047	0	2	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1338770	1	9	11.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1342046	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1338808	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1342045	1	6	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1342013	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1338720	0	2	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1338721	0	2	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1338719	1	8	12.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1340495	0	2	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1342011	1	6	16.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1338769	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1340494	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1339576	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1340496	0	2	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1342012	1	2	50.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2403955**	Page	: 1 of 18
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Feb-2024 10:30
PO	: PPR-022-3	Date Analysis Commenced	: 20-Feb-2024
C-O-C number	: ----	Issue Date	: 26-Feb-2024 15:24
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1337922)											
WP2403943-001	Anonymous	pH	----	E108	0.10	pH units	7.85	7.82	0.383%	4%	----
Physical Tests (QC Lot: 1337923)											
WP2403943-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	630	632	0.317%	10%	----
Physical Tests (QC Lot: 1337924)											
WP2403943-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	302	303	0.496%	20%	----
Physical Tests (QC Lot: 1338706)											
WP2403942-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1338707)											
WP2403942-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	62.2	62.2	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1343580)											
WP2403852-004	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	6.2	6.3	0.04	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1338719)											
WP2403952-010	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	20.0	20.9	4.33%	20%	----
Anions and Nutrients (QC Lot: 1339380)											
WP2403917-010	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0250	mg/L	1.99	2.13	6.72%	20%	----
Anions and Nutrients (QC Lot: 1339576)											
WP2403955-001	PL-03	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0217	0.0215	0.973%	20%	----
Cyanides (QC Lot: 1342011)											
WP2403910-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1342012)											
WP2403955-001	PL-03	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1342013)											
WP2403955-001	PL-03	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1338808)											
WP2403910-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.28	8.33	0.533%	20%	----
Total Metals (QC Lot: 1338769)											
WP2403345-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1340494)											
WP2403952-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1340494) - continued											
WP2403952-002	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00011	<0.00010	0.000006	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00048	0.00047	0.000006	Diff <2x LOR	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.207	0.206	0.735%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	2.41	2.37	1.56%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000031	0.000029	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00064	0.00065	0.000008	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0064	0.0063	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	0.754	0.745	1.12%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00205	0.00201	1.96%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00069	0.00075	0.00007	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.847	0.818	3.47%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00074	0.00071	0.00002	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000137	0.000065	0.000071	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.69	1.62	4.28%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	50.0	48.6	2.94%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.00815	0.00785	3.66%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	4.98	4.88	0.10	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1340494) - continued											
WP2403952-002	Anonymous	Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0201	0.0199	0.0002	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1338770)											
WP2403349-008	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1342045)											
WP2403853-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1342046)											
WP2403853-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0075	0.0079	0.0004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00020	0.00019	0.000009	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00314	0.00314	0.00892%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00616	0.00652	5.69%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	0.0000056	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	8.20	8.19	0.186%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00107	0.00103	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.028	0.028	0.0006	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.27	2.28	0.191%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00184	0.00177	3.79%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000146	0.000146	0.0000005	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00055	0.00052	0.00002	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.934	0.950	1.64%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00213	0.00202	5.08%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000086	0.000071	0.000016	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.90	1.88	1.21%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1342046) - continued											
WP2403853-001	Anonymous	Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.86	1.91	2.89%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0249	0.0250	0.739%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.95	0.86	0.09	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00021	0.00021	0.000003	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000062	0.000064	0.000002	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0041	0.0041	0.00003	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1337923)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1337924)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1338706)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1338707)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1343580)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1338719)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1338720)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1338721)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1338722)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1339380)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1339576)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1342011)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1342012)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1342013)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1338808)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1338769)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1340494)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1340494) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	# 0.000124	B
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1340494) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1340495)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1340496)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1338770)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1342045)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1342046)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1342046) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1342047)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1337922)									
pH	----	E108	----	pH units	7 pH units	99.3	98.0	102	----
Physical Tests (QCLot: 1337923)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1337924)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1338706)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	97.6	85.0	115	----
Physical Tests (QCLot: 1338707)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.7	85.0	115	----
Physical Tests (QCLot: 1343580)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	110	85.0	115	----
Anions and Nutrients (QCLot: 1338719)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.7	90.0	110	----
Anions and Nutrients (QCLot: 1338720)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1338721)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.4	90.0	110	----
Anions and Nutrients (QCLot: 1338722)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1339380)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	96.5	85.0	115	----
Anions and Nutrients (QCLot: 1339576)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.7	80.0	120	----
Cyanides (QCLot: 1342011)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	92.7	80.0	120	----
Cyanides (QCLot: 1342012)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	91.9	80.0	120	----
Cyanides (QCLot: 1342013)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.2	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1338808)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	92.4	80.0	120	----
Total Metals (QCLot: 1338769)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	104	80.0	120	----
Total Metals (QCLot: 1340494)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	104	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.6	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	110	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.1	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.8	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	116	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1340494) - continued									
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.5	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Total Metals (QCLot: 1340495)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Total Metals (QCLot: 1340496)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Dissolved Metals (QCLot: 1342046)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.0	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	105	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	89.9	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.7	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.3	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	95.1	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	95.1	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	95.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	# 78.2	80.0	120	MES
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	88.2	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	99.3	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	99.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	92.9	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1342046) - continued									
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	99.3	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	110	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	84.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	96.7	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.6	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	99.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	93.4	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	102	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	93.2	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.8	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	101	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.3	80.0	120	----
Dissolved Metals (QCLot: 1342047)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	95.1	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1338719)										
WP2403952-010	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	93.9 mg/L	100 mg/L	93.9	75.0	125	----
Anions and Nutrients (QCLot: 1339380)										
WP2403917-010	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	0.1 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 1339576)										
WP2403955-002	PL-04	Phosphorus, total	7723-14-0	E372-U	0.234 mg/L	0.25 mg/L	93.8	70.0	130	----
Cyanides (QCLot: 1342011)										
WP2403910-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.224 mg/L	0.25 mg/L	89.8	75.0	125	----
Cyanides (QCLot: 1342012)										
WP2403955-001	PL-03	Cyanide, weak acid dissociable	----	E336-L	0.116 mg/L	0.125 mg/L	92.8	75.0	125	----
Cyanides (QCLot: 1342013)										
WP2403955-001	PL-03	Cyanide, free	----	E339-L	0.120 mg/L	0.125 mg/L	96.4	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1338808)										
WP2403910-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1338769)										
WP2403345-005	Anonymous	Mercury, total	7439-97-6	E508	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----
Total Metals (QCLot: 1340494)										
WP2403952-002	Anonymous	Aluminum, total	7429-90-5	E420	0.230 mg/L	0.2 mg/L	115	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0227 mg/L	0.02 mg/L	114	70.0	130	----
		Barium, total	7440-39-3	E420	0.0235 mg/L	0.02 mg/L	118	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0484 mg/L	0.04 mg/L	121	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0114 mg/L	0.01 mg/L	114	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00478 mg/L	0.004 mg/L	119	70.0	130	----
		Calcium, total	7440-70-2	E420	4.52 mg/L	4 mg/L	113	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0118 mg/L	0.01 mg/L	118	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Copper, total	7440-50-8	E420	0.0226 mg/L	0.02 mg/L	113	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1340494) - continued										
WP2403952-002	Anonymous	Iron, total	7439-89-6	E420	2.26 mg/L	2 mg/L	113	70.0	130	----
		Lead, total	7439-92-1	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Lithium, total	7439-93-2	E420	0.125 mg/L	0.1 mg/L	125	70.0	130	----
		Magnesium, total	7439-95-4	E420	1.13 mg/L	1 mg/L	113	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0231 mg/L	0.02 mg/L	116	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0460 mg/L	0.04 mg/L	115	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.7 mg/L	10 mg/L	117	70.0	130	----
		Potassium, total	7440-09-7	E420	4.68 mg/L	4 mg/L	117	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0235 mg/L	0.02 mg/L	117	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0472 mg/L	0.04 mg/L	118	70.0	130	----
		Silicon, total	7440-21-3	E420	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, total	7440-22-4	E420	0.00443 mg/L	0.004 mg/L	111	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0236 mg/L	0.02 mg/L	118	70.0	130	----
		Sulfur, total	7704-34-9	E420	23.4 mg/L	20 mg/L	117	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00434 mg/L	0.004 mg/L	109	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Tin, total	7440-31-5	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00457 mg/L	0.004 mg/L	114	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Zinc, total	7440-66-6	E420	0.454 mg/L	0.4 mg/L	113	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
Dissolved Metals (QCLot: 1338770)										
WP2403349-009	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000103 mg/L	0.0001 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1342045)										
WP2403853-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	13.0 mg/L	10 mg/L	130	70.0	130	----
Dissolved Metals (QCLot: 1342046)										
WP2403853-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.257 mg/L	0.2 mg/L	128	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0227 mg/L	0.02 mg/L	113	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0248 mg/L	0.02 mg/L	124	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1342046) - continued										
WP2403853-001	Anonymous	Barium, dissolved	7440-39-3	E421	0.0247 mg/L	0.02 mg/L	123	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0479 mg/L	0.04 mg/L	120	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0115 mg/L	0.01 mg/L	115	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.091 mg/L	0.1 mg/L	90.6	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00471 mg/L	0.004 mg/L	118	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0128 mg/L	0.01 mg/L	128	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0487 mg/L	0.04 mg/L	122	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.95 mg/L	2 mg/L	97.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0236 mg/L	0.02 mg/L	118	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.117 mg/L	0.1 mg/L	117	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0247 mg/L	0.02 mg/L	124	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0468 mg/L	0.04 mg/L	117	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	13.0 mg/L	10 mg/L	130	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.80 mg/L	4 mg/L	120	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0256 mg/L	0.02 mg/L	128	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.52 mg/L	10 mg/L	95.2	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00461 mg/L	0.004 mg/L	115	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.17 mg/L	2 mg/L	108	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	22.3 mg/L	20 mg/L	112	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0469 mg/L	0.04 mg/L	117	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00477 mg/L	0.004 mg/L	119	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0236 mg/L	0.02 mg/L	118	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0422 mg/L	0.04 mg/L	105	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00450 mg/L	0.004 mg/L	112	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.118 mg/L	0.1 mg/L	118	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.489 mg/L	0.4 mg/L	122	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1342046) - continued										
WP2403853-001	Anonymous	Zirconium, dissolved	7440-67-7	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F -
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F -
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F -
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F -
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] If received by 3pm M-F - 1
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] If received by 10am M
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply t holidays ar
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	An
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	PL-03	14-Feb-24	11:05	water	10		X		8.01	0.4	59.7
	PL-04	14-Feb-24	12:45	water	10		X		8.02	0	49.3

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Feb 15th 2024	Time: 9:00	Received by:	Date: FEB 20 2024	Time: 1050	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2403955

Telephone : +1 204 255 9720

9.4°C

Sample Intake					
Client:	Great Bear				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	4	Yellow/Black	2		
Purple/White	4	Light blue/White			
Warm red/White	4	Orange/Black			
Dark Green/White	2	Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following: Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered		✓
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2405262**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Mar-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 05-Mar-2024
C-O-C number	: ----	Issue Date	: 11-Mar-2024 12:48
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-GL	SW-GL-B	SW-04	----	----
				Client sampling date / time	01-Mar-2024 00:00	01-Mar-2024 00:00	03-Mar-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2405262-001	WP2405262-002	WP2405262-003	--------	--------
					Result	Result	Result	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.77	6.90	7.61	----	----
Temperature, field	----	EF001/WP	0.10	°C	1.70	4.00	<0.10	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	5.1	8.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	38.1	37.0	57.6	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	38.1	37.0	57.6	----	----
Conductivity	----	E100/WP	1.0	µS/cm	80.8	80.2	118	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	37.9	36.9	59.3	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	39.9	37.8	60.2	----	----
pH	----	E108/WP	0.10	pH units	7.67	7.43	7.60	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	51.8	55.5	64.5	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	1.1	<1.0	14.6	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0100	0.0061	0.0302	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.28	0.21	0.46	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	0.316	0.117	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	0.316	0.117	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0153	0.0222	0.0286	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.68	0.61	0.88	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-04	----	----
					Client sampling date / time	01-Mar-2024 00:00	01-Mar-2024 00:00	03-Mar-2024 00:00	----	----
						WP2405262-001	WP2405262-002	WP2405262-003	--------	--------
						Result	Result	Result	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.3	10.3	17.1	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0038	0.0084	0.233	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000074	0.000058	0.000071	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00191	0.00298	0.00194	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00813	0.0100	0.0154	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000033	0.0000053	0.000018	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000025	Not Detected	0.0000033	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0072	0.0059	0.0071	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.00000054	0.0000023	0.0000076	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.4	10.8	16.3	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.0000056	0.0000061	0.000028	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00012	0.00012	0.00056	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00012	0.00012	0.00056	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000020	0.000046	0.00027	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00031	0.00029	0.00110	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.116	0.624	0.692	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000016	0.000025	0.000136	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0016	0.0014	0.0026	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.78	2.63	4.73	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0102	0.195	0.0968	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000107	0.000118	0.000270	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00017	0.00019	0.00083	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	0.035	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.016	0.020	0.035	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.868	0.806	1.35	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00208	0.00194	0.00248	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	SW-04	----	----
					Client sampling date / time	01-Mar-2024 00:00	01-Mar-2024 00:00	03-Mar-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2405262-001	WP2405262-002	WP2405262-003	--------	--------
						Result	Result	Result	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000094	0.000118	0.000142	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.71	1.60	4.06	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000016	Not Detected	0.0000041	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.50	1.34	2.11	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0257	0.0241	0.0370	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.51	0.26	0.40	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		0.000031	0.000021	0.000042	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	Not Detected	0.0000042	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	Not Detected	0.000054	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000018	0.000014	0.000017	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.000096	0.00028	0.0102	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	0.000035	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000040	0.000043	0.000188	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00028	0.00035	0.00104	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0021	0.00072	0.0040	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.000022	Not Detected	0.00027	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0015	0.0029	0.0298	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000067	0.000052	0.000062	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00168	0.00244	0.00154	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00801	0.00975	0.0136	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	Not Detected	0.0000098	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0052	0.0045	0.0054	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000013	0.0000013	0.0000023	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.8	10.6	16.2	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000052	0.0000032	0.0000025	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00020	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.000055	0.000054	0.00020	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000022	0.000024	0.00015	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	SW-04	----	----
					Client sampling date / time	01-Mar-2024 00:00	01-Mar-2024 00:00	03-Mar-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2405262-001	WP2405262-002	WP2405262-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00034	0.00022	0.00065	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.080	0.411	0.295	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000011	0.000016	0.000044	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0014	0.0023	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.66	2.53	4.58	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00815	0.154	0.0770	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000108	0.000112	0.000242	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00014	0.00014	0.00049	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	0.010	0.0060	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.831	0.748	1.26	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00210	0.00195	0.00212	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000077	0.000052	0.000100	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.599	1.44	3.39	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.51	1.29	2.05	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0252	0.0232	0.0346	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.34	0.31	0.37	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	Not Detected	0.0000022	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	0.000036	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000021	0.000010	0.000013	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.000044	0.000086	0.00086	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	0.000022	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000038	0.000042	0.000181	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.000074	0.00013	0.00041	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0025	0.00068	0.00058	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		Not Detected	Not Detected	0.00018	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	SW-04	----	----
					Client sampling date / time	01-Mar-2024 00:00	01-Mar-2024 00:00	03-Mar-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2405262-001	WP2405262-002	WP2405262-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2405262**	Page	: 1 of 18
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Mar-2024 09:00
PO	: PPR-022-3	Issue Date	: 11-Mar-2024 11:56
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	03-Mar-2024	07-Mar-2024	28 days	4 days	✓	07-Mar-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	01-Mar-2024	07-Mar-2024	28 days	6 days	✓	07-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	01-Mar-2024	07-Mar-2024	28 days	6 days	✓	07-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.Cl-L	03-Mar-2024	05-Mar-2024	28 days	3 days	✓	05-Mar-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	01-Mar-2024	05-Mar-2024	28 days	5 days	✓	05-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.Cl-L	01-Mar-2024	05-Mar-2024	28 days	5 days	✓	05-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO3-L	03-Mar-2024	05-Mar-2024	7 days	3 days	✓	05-Mar-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL	E235.NO3-L	01-Mar-2024	05-Mar-2024	7 days	5 days	✓	05-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL-B	E235.NO3-L	01-Mar-2024	05-Mar-2024	7 days	5 days	✓	05-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.NO2-L	03-Mar-2024	05-Mar-2024	7 days	3 days	✓	05-Mar-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL	E235.NO2-L	01-Mar-2024	05-Mar-2024	7 days	5 days	✓	05-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL-B	E235.NO2-L	01-Mar-2024	05-Mar-2024	7 days	5 days	✓	05-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-04	E235.SO4	03-Mar-2024	05-Mar-2024	28 days	3 days	✓	05-Mar-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL	E235.SO4	01-Mar-2024	05-Mar-2024	28 days	5 days	✓	05-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL-B	E235.SO4	01-Mar-2024	05-Mar-2024	28 days	5 days	✓	05-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-04	E372-U	03-Mar-2024	05-Mar-2024	28 days	3 days	✓	06-Mar-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL	E372-U	01-Mar-2024	05-Mar-2024	28 days	5 days	✓	06-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL-B	E372-U	01-Mar-2024	05-Mar-2024	28 days	5 days	✓	06-Mar-2024	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	03-Mar-2024	07-Mar-2024	14 days	4 days	✓	07-Mar-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	01-Mar-2024	07-Mar-2024	14 days	6 days	✓	07-Mar-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	01-Mar-2024	07-Mar-2024	14 days	6 days	✓	07-Mar-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	03-Mar-2024	07-Mar-2024	14 days	4 days	✓	07-Mar-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	01-Mar-2024	07-Mar-2024	14 days	6 days	✓	07-Mar-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	01-Mar-2024	07-Mar-2024	14 days	6 days	✓	07-Mar-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	03-Mar-2024	07-Mar-2024	14 days	4 days	✓	07-Mar-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E336-L	01-Mar-2024	07-Mar-2024	14 days	6 days	✓	07-Mar-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E336-L	01-Mar-2024	07-Mar-2024	14 days	6 days	✓	07-Mar-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-04	E421.Cr-L	03-Mar-2024	05-Mar-2024	180 days	2 days	✓	05-Mar-2024	180 days	2 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	01-Mar-2024	05-Mar-2024	180 days	4 days	✓	05-Mar-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.Cr-L	01-Mar-2024	05-Mar-2024	180 days	4 days	✓	05-Mar-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	03-Mar-2024	08-Mar-2024	28 days	5 days	✓	08-Mar-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	01-Mar-2024	08-Mar-2024	28 days	7 days	✓	08-Mar-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	01-Mar-2024	08-Mar-2024	28 days	7 days	✓	08-Mar-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	03-Mar-2024	05-Mar-2024	180 days	2 days	✓	05-Mar-2024	180 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	01-Mar-2024	05-Mar-2024	180 days	4 days	✓	05-Mar-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	01-Mar-2024	05-Mar-2024	180 days	4 days	✓	05-Mar-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-04	E421.P-L	03-Mar-2024	05-Mar-2024	180 days	2 days	✓	05-Mar-2024	180 days	2 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	01-Mar-2024	05-Mar-2024	180 days	4 days	✓	05-Mar-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	01-Mar-2024	05-Mar-2024	180 days	4 days	✓	05-Mar-2024	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-04	EF001	03-Mar-2024	----	----	----		05-Mar-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL	EF001	01-Mar-2024	----	----	----		05-Mar-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL-B	EF001	01-Mar-2024	----	----	----		05-Mar-2024	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-04	E358-L	03-Mar-2024	05-Mar-2024	28 days	3 days	✓	05-Mar-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	01-Mar-2024	05-Mar-2024	28 days	5 days	✓	05-Mar-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL-B	E358-L	01-Mar-2024	05-Mar-2024	28 days	5 days	✓	05-Mar-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-04	E283	03-Mar-2024	06-Mar-2024	14 days	4 days	✓	07-Mar-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	01-Mar-2024	06-Mar-2024	14 days	6 days	✓	07-Mar-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	01-Mar-2024	06-Mar-2024	14 days	6 days	✓	07-Mar-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	03-Mar-2024	06-Mar-2024	14 days	3 days	✓	06-Mar-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	01-Mar-2024	06-Mar-2024	14 days	5 days	✓	06-Mar-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	01-Mar-2024	06-Mar-2024	14 days	5 days	✓	06-Mar-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	03-Mar-2024	06-Mar-2024	28 days	3 days	✓	06-Mar-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	01-Mar-2024	06-Mar-2024	28 days	5 days	✓	06-Mar-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	01-Mar-2024	06-Mar-2024	28 days	5 days	✓	06-Mar-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	03-Mar-2024	06-Mar-2024	14 days	3 days	✓	06-Mar-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	01-Mar-2024	06-Mar-2024	14 days	5 days	✓	06-Mar-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	01-Mar-2024	06-Mar-2024	14 days	5 days	✓	06-Mar-2024	14 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	03-Mar-2024	----	----	----		05-Mar-2024	7 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	01-Mar-2024	----	----	----		05-Mar-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	01-Mar-2024	----	----	----		05-Mar-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	03-Mar-2024	----	----	----		05-Mar-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	01-Mar-2024	----	----	----		05-Mar-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	01-Mar-2024	----	----	----		05-Mar-2024	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	03-Mar-2024	06-Mar-2024	180 days	3 days	✓	06-Mar-2024	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	01-Mar-2024	06-Mar-2024	180 days	5 days	✓	06-Mar-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	01-Mar-2024	06-Mar-2024	180 days	5 days	✓	06-Mar-2024	180 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	03-Mar-2024	08-Mar-2024	28 days	5 days	✓	08-Mar-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	01-Mar-2024	08-Mar-2024	28 days	7 days	✓	08-Mar-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	01-Mar-2024	08-Mar-2024	28 days	7 days	✓	08-Mar-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	03-Mar-2024	06-Mar-2024	180 days	3 days	✓	06-Mar-2024	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	01-Mar-2024	06-Mar-2024	180 days	5 days	✓	06-Mar-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	01-Mar-2024	06-Mar-2024	180 days	5 days	✓	06-Mar-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	03-Mar-2024	06-Mar-2024	180 days	3 days	✓	06-Mar-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	01-Mar-2024	06-Mar-2024	180 days	5 days	✓	06-Mar-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	01-Mar-2024	06-Mar-2024	180 days	5 days	✓	06-Mar-2024	180 days	5 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1355855	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1357116	1	10	10.0	5.0	✓
Ammonia by Fluorescence	E298	1357108	1	13	7.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1354719	0	3	0.0	5.0	✗
Conductivity in Water	E100	1357115	1	11	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1354091	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1358887	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1354090	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1354515	1	4	25.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1354089	1	12	8.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1355910	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1354717	0	3	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1354718	0	3	0.0	5.0	✗
pH by Meter	E108	1357117	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1354714	0	8	0.0	5.0	✗
TDS by Gravimetry (Low Level)	E162-L	1355425	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1355387	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1355911	1	12	8.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1358884	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1355385	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1354727	1	12	8.3	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1355386	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1355359	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1355909	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1355855	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1357116	1	10	10.0	5.0	✓
Ammonia by Fluorescence	E298	1357108	1	13	7.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1354719	1	3	33.3	5.0	✓
Conductivity in Water	E100	1357115	1	11	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1354091	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1358887	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1354090	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1354515	1	4	25.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1354089	1	12	8.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1355910	1	12	8.3	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1354717	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1354718	1	3	33.3	5.0	✓
pH by Meter	E108	1357117	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1354714	1	8	12.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1355425	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1355387	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1355911	1	12	8.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1358884	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1355385	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1354727	1	12	8.3	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1355386	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1355359	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1355909	1	12	8.3	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1355855	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1357116	1	10	10.0	5.0	✓
Ammonia by Fluorescence	E298	1357108	1	13	7.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1354719	1	3	33.3	5.0	✓
Conductivity in Water	E100	1357115	1	11	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1354091	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1358887	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1354090	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1354515	1	4	25.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1354089	1	12	8.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1355910	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1354717	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1354718	1	3	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1354714	1	8	12.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1355425	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1355387	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1355911	1	12	8.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1358884	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1355385	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1354727	1	12	8.3	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1355386	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1355359	1	16	6.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1355909	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1357108	1	13	7.6	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1354719	0	3	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1354091	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1358887	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1354090	1	16	6.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1354515	1	4	25.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1354089	1	12	8.3	5.0	✓
Free Cyanide (Low Level)	E339-L	1355910	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1354717	0	3	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1354718	0	3	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1354714	0	8	0.0	5.0	✗
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1355387	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1355911	1	12	8.3	5.0	✓
Total Mercury in Water by CVAAS	E508	1358884	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1355385	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1354727	1	12	8.3	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1355386	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1355909	1	12	8.3	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2405262**	Page	: 1 of 18
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Mar-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 05-Mar-2024
C-O-C number	: ----	Issue Date	: 11-Mar-2024 11:55
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Kelly Fischer	Technical Specialist	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1355359)											
WP2405295-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	3.4	3.4	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1355425)											
WP2405206-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	79.5	79.5	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1355855)											
WP2405217-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	5.0	4.0	1.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1357115)											
WP2405345-007	Anonymous	Conductivity	----	E100	1.0	µS/cm	277	277	0.00%	10%	----
Physical Tests (QC Lot: 1357116)											
WP2405345-007	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	152	152	0.197%	20%	----
Physical Tests (QC Lot: 1357117)											
WP2405345-007	Anonymous	pH	----	E108	0.10	pH units	8.13	8.06	0.865%	4%	----
Anions and Nutrients (QC Lot: 1354727)											
WP2405217-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0130	0.0133	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1357108)											
WP2405259-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0390	0.0436	0.0046	Diff <2x LOR	----
Cyanides (QC Lot: 1355909)											
WP2405217-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1355910)											
WP2405217-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1355911)											
WP2405217-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1354515)											
WP2405261-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.3	10.3	0.728%	20%	----
Total Metals (QC Lot: 1355385)											
WP2405217-007	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0146	0.0156	0.0010	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00019	0.00018	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00729	0.00729	0.0686%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1355385) - continued											
WP2405217-007	Anonymous	Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	3.00	2.99	0.333%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.227	0.220	2.77%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0015	0.0014	0.00004	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	0.839	0.824	1.86%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0167	0.0166	0.822%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000054	<0.000050	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.720	0.705	2.12%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00121	0.00125	0.00004	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000081	0.000075	0.000006	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.11	4.04	1.62%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.38	1.32	4.47%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0144	0.0144	0.340%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00055	0.00045	0.00010	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000016	0.000016	0.0000005	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1355386)											
WP2405217-007	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1358884)											
WP2405206-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000199	0.0000186	0.0000013	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1354089)											
WP2405217-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1354090)											
WP2405217-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0045	0.0044	0.00004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00014	0.00014	0.000004	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00730	0.00714	2.33%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	2.90	2.87	1.12%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00033	0.00032	0.000008	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.086	0.085	0.001	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0016	0.0015	0.00004	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.817	0.825	1.03%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0138	0.0134	2.74%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.671	0.675	0.495%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00118	0.00122	0.00004	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.82	3.76	1.46%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.23	1.28	4.40%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0137	0.0143	4.21%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1354090) - continued											
WP2405217-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00014	0.00015	0.000004	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000014	0.000014	0.0000004	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1358887)											
WP2405178-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1355359)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1355425)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1355855)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1357115)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1357116)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1354714)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1354717)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1354718)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1354719)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1354727)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1357108)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1355909)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1355910)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1355911)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1354515)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1355385)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1355385) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1355385) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1355386)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1355387)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1358884)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1354089)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1354090)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1354090) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1354091)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1358887)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1355359)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	99.2	85.0	115	----
Physical Tests (QCLot: 1355425)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.5	85.0	115	----
Physical Tests (QCLot: 1355855)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	110	85.0	115	----
Physical Tests (QCLot: 1357115)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1357116)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	103	85.0	115	----
Physical Tests (QCLot: 1357117)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Anions and Nutrients (QCLot: 1354714)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1354717)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1354718)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.1	90.0	110	----
Anions and Nutrients (QCLot: 1354719)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1354727)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.0	80.0	120	----
Anions and Nutrients (QCLot: 1357108)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.8	85.0	115	----
Cyanides (QCLot: 1355909)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	92.1	80.0	120	----
Cyanides (QCLot: 1355910)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.9	80.0	120	----
Cyanides (QCLot: 1355911)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	89.2	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Organic / Inorganic Carbon (QCLot: 1354515)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	106	80.0	120	----
Total Metals (QCLot: 1355385)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	96.2	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.3	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.3	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.7	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.8	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.7	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.2	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	89.6	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.3	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.0	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1355385) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.3	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	97.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	94.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	116	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.5	80.0	120	----
Total Metals (QCLot: 1355386)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Total Metals (QCLot: 1355387)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.3	80.0	120	----
Total Metals (QCLot: 1358884)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	110	80.0	120	----
Dissolved Metals (QCLot: 1354090)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	98.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.5	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	107	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	103	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	103	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	99.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.3	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	91.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	110	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1354090) - continued									
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	93.7	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	97.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.5	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	92.8	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.3	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.6	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.7	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.0	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.3	80.0	120	----
Dissolved Metals (QCLot: 1354091)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.3	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1354727)										
WP2405217-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.230 mg/L	0.25 mg/L	92.0	70.0	130	----
Anions and Nutrients (QCLot: 1357108)										
WP2405259-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0958 mg/L	0.1 mg/L	95.8	75.0	125	----
Cyanides (QCLot: 1355909)										
WP2405217-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.115 mg/L	0.125 mg/L	91.7	75.0	125	----
Cyanides (QCLot: 1355910)										
WP2405217-001	Anonymous	Cyanide, free	----	E339-L	0.116 mg/L	0.125 mg/L	92.7	75.0	125	----
Cyanides (QCLot: 1355911)										
WP2405217-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.206 mg/L	0.25 mg/L	82.6	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1354515)										
WP2405262-001	SW-GL	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1355385)										
WP2405217-007	Anonymous	Aluminum, total	7429-90-5	E420	0.187 mg/L	0.2 mg/L	93.7	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0192 mg/L	0.02 mg/L	96.1	70.0	130	----
		Barium, total	7440-39-3	E420	0.0183 mg/L	0.02 mg/L	91.3	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00955 mg/L	0.01 mg/L	95.5	70.0	130	----
		Boron, total	7440-42-8	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00376 mg/L	0.004 mg/L	94.1	70.0	130	----
		Calcium, total	7440-70-2	E420	3.82 mg/L	4 mg/L	95.4	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00993 mg/L	0.01 mg/L	99.3	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0375 mg/L	0.04 mg/L	93.8	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Copper, total	7440-50-8	E420	0.0185 mg/L	0.02 mg/L	92.5	70.0	130	----
		Iron, total	7439-89-6	E420	1.95 mg/L	2 mg/L	97.4	70.0	130	----
		Lead, total	7439-92-1	E420	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Lithium, total	7439-93-2	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, total	7439-95-4	E420	0.867 mg/L	1 mg/L	86.7	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0171 mg/L	0.02 mg/L	85.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1355385) - continued										
WP2405217-007	Anonymous	Molybdenum, total	7439-98-7	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0373 mg/L	0.04 mg/L	93.2	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.38 mg/L	10 mg/L	93.8	70.0	130	----
		Potassium, total	7440-09-7	E420	3.85 mg/L	4 mg/L	96.3	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0393 mg/L	0.04 mg/L	98.3	70.0	130	----
		Silicon, total	7440-21-3	E420	9.42 mg/L	10 mg/L	94.2	70.0	130	----
		Silver, total	7440-22-4	E420	0.00390 mg/L	0.004 mg/L	97.4	70.0	130	----
		Sodium, total	7440-23-5	E420	1.76 mg/L	2 mg/L	87.8	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0193 mg/L	0.02 mg/L	96.3	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.6 mg/L	20 mg/L	103	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00369 mg/L	0.004 mg/L	92.3	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0183 mg/L	0.02 mg/L	91.7	70.0	130	----
		Tin, total	7440-31-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0392 mg/L	0.04 mg/L	97.9	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00359 mg/L	0.004 mg/L	89.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0941 mg/L	0.1 mg/L	94.1	70.0	130	----
		Zinc, total	7440-66-6	E420	0.363 mg/L	0.4 mg/L	90.8	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
Total Metals (QCLot: 1355386)										
WP2405217-007	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	9.38 mg/L	10 mg/L	93.8	70.0	130	----
Total Metals (QCLot: 1358884)										
WP2405206-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000970 mg/L	0.0001 mg/L	97.0	70.0	130	----
Dissolved Metals (QCLot: 1354089)										
WP2405217-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	9.97 mg/L	10 mg/L	99.7	70.0	130	----
Dissolved Metals (QCLot: 1354090)										
WP2405217-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.198 mg/L	0.2 mg/L	98.9	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00943 mg/L	0.01 mg/L	94.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1354090) - continued										
WP2405217-001	Anonymous	Boron, dissolved	7440-42-8	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	3.90 mg/L	4 mg/L	97.5	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00975 mg/L	0.01 mg/L	97.5	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0390 mg/L	0.04 mg/L	97.4	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.96 mg/L	2 mg/L	98.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0188 mg/L	0.02 mg/L	94.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0965 mg/L	0.1 mg/L	96.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	0.959 mg/L	1 mg/L	95.9	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0390 mg/L	0.04 mg/L	97.5	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.97 mg/L	10 mg/L	99.7	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.76 mg/L	4 mg/L	94.0	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0391 mg/L	0.04 mg/L	97.7	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.32 mg/L	10 mg/L	93.2	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00406 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.01 mg/L	2 mg/L	101	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.5 mg/L	20 mg/L	97.5	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0983 mg/L	0.1 mg/L	98.3	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.406 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1358887)										
WP2405178-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Report To		Reports / Recipients		Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)		☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A		☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1	ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2	hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3	christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4	jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5	curtis.bloemberg@kinross.com	
Company:		Email 6	emily.meek@kinross.com	Analysis Request
		Email 7	aaron.peloquin@kinross.com	
		Email 8	amy.elliot@wsp.com	
		Email 9	dale.klodnicki@wsp.com	
Contact:		Email 10	matthew.wilson4@wsp.com	

Project Information		Invoice Recipients			
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX			
Job #:	PPR-022-3	Email 1	invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact:	Judy Dalmaijer	Sampler:	CB

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-GL	1-Mar-24		water	10	X			7.77	1.7	47.7
	SW-GL-B	1-Mar-24		water	10	X			6.9	4	49.2
	SW-04	3-Mar-24		water	10	X			7.61	0.01	66.9

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	4-Mar-23	Time: 9:00	Received by:	Date: MAR 0 5 2024	Time: 900	Received by:	Time: 3.8°C

Environmental Division
Winnipeg
Work Order Reference
WP2405262

Telephone : +1 204 255 9720

Sample Intake					
Client:	KINDS				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:	30				
Green/White	6x250,3x125	Yellow/Black	6x40		
Purple/White	6x60	Light blue/White			
Warm red/White	6x125	Orange/Black			
Dark Green/White		Dark Blue/White			
Grey/black	3x60	Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2405786**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Mar-2024 09:30
PO	: PPR-022-3	Date Analysis Commenced	: 12-Mar-2024
C-O-C number	: ----	Issue Date	: 20-Mar-2024 14:41
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.
Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Sample(s) Met-T -007: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-01	SW-DUP01	SW-BLANK01	CR-REF
					Client sampling date / time	07-Mar-2024 09:55	07-Mar-2024 13:30	07-Mar-2024 13:30	07-Mar-2024 13:30	08-Mar-2024 10:10
						WP2405786-001	WP2405786-002	WP2405786-003	WP2405786-004	WP2405786-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.63	6.84	6.84	----	7.90
Temperature, field	----	EF001/WP	0.10	°C		<0.10	0.40	0.40	----	0.20
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.8	11.2	11.7	2.6	3.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		125	18.6	19.1	<1.0	31.9
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		125	18.6	19.1	<1.0	31.9
Conductivity	----	E100/WP	1.0	µS/cm		240	55.8	55.9	1.0	89.8
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		109	29.4	29.8	<0.50	37.9
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		129	31.6	32.0	<0.50	38.9
pH	----	E108/WP	0.10	pH units		8.16	6.50	6.51	5.50	7.38
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		134	99.0	83.4	<3.0	59.8
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		112	11.5	10.3	<1.0	1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0352	0.0105	0.0149	<0.0050	0.0163
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.00	0.22	0.24	Not Detected	2.78
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.185	0.0163	0.0192	<0.0050	0.0913
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.188	0.0163	0.0192	<0.0051	0.0913
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0035	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.120	0.0683	0.0839	<0.0020	0.0126
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		3.78	0.58	0.58	<0.30	6.27
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0010	0.0011	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0014	0.0014	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-01	SW-DUP01	SW-BLANK01	CR-REF
					Client sampling date / time	07-Mar-2024 09:55	07-Mar-2024 13:30	07-Mar-2024 13:30	07-Mar-2024 13:30	08-Mar-2024 10:10
						WP2405786-001	WP2405786-002	WP2405786-003	WP2405786-004	WP2405786-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0011	0.0012	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		5.03	45.7	48.0	<0.50	12.9
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		3.69	0.364	0.359	0.0010	0.0402
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000050	0.00019	0.00018	0.000010	0.00034
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00221	0.00586	0.00562	0.000029	0.00804
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0520	0.00866	0.00854	0.000037	0.00767
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000113	0.000020	0.000018	0.00000059	0.0000064
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.000037	0.0000048	0.0000038	Not Detected	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0090	0.0048	0.0047	Not Detected	0.0065
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000439	0.0000125	0.0000106	Not Detected	0.0000023
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		37.0	8.70	8.64	0.013	11.3
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000466	0.0000094	0.0000092	Not Detected	0.0000059
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00741	0.00076	0.00080	<0.00010	0.00014
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00741	0.00076	0.00080	Not Detected	0.00014
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00240	0.00071	0.00068	Not Detected	0.000066
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00442	0.00069	0.00069	0.000057	0.00130
Iron, total	7439-89-6	E420/WP	0.010	mg/L		4.48	1.12	1.09	0.0010	0.054
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.00179	0.000146	0.000137	0.0000061	0.000024
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0096	0.0015	0.0014	Not Detected	0.0016
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		8.94	2.39	2.52	0.0016	2.60
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.378	0.115	0.113	0.000031	0.00369
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000779	0.000092	0.000095	0.000018	0.000189
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00544	0.00093	0.00090	Not Detected	0.00121
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.197	0.069	0.062	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.197	0.069	0.062	0.010	0.012
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		2.66	0.614	0.612	Not Detected	0.958
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00867	0.00192	0.00186	Not Detected	0.00161

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-01	SW-DUP01	SW-BLANK01	CR-REF
					Client sampling date / time	07-Mar-2024 09:55	07-Mar-2024 13:30	07-Mar-2024 13:30	07-Mar-2024 13:30	08-Mar-2024 10:10
						WP2405786-001	WP2405786-002	WP2405786-003	WP2405786-004	WP2405786-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000210	0.000203	0.000146	0.000019	0.000095
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		12.6	3.27	3.22	0.036	1.45
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000016	0.0000019	0.0000061	Not Detected	0.0000011
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.96	1.94	1.66	0.0088	2.41
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0546	0.0229	0.0224	Not Detected	0.0303
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.25	0.51	0.52	Not Detected	1.66
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000057	0.0000069	0.0000064	Not Detected	0.0000017
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00055	0.00014	0.00013	Not Detected	0.000014
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.00011	0.000027	0.000018	0.000094	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.197	0.00433	0.00422	Not Detected	0.00160
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000052	Not Detected	Not Detected	Not Detected	0.000024
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.00216	0.000078	0.000075	Not Detected	0.000093
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00939	0.00080	0.00078	0.00015	0.00041
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0128	0.0045	0.0041	0.00049	0.00084
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00046	0.00045	0.00040	Not Detected	0.000097
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0039	0.338	0.336	0.00070	0.0045
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000028	0.00017	0.00017	Not Detected	0.00035
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00062	0.00520	0.00527	0.000024	0.00807
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0178	0.00904	0.00977	0.00016	0.00791
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	0.000019	0.000020	0.0000046	0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	0.0000051	0.000012
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0055	0.0043	0.0042	Not Detected	0.0060
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000034	0.0000109	0.0000098	Not Detected	Not Detected
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		31.9	8.15	8.32	0.025	10.9
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000015	0.0000077	0.0000085	Not Detected	0.0000033
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00069	0.00065	<0.00010	0.00016
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.000078	0.00069	0.00065	Not Detected	0.00016
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000065	0.00062	0.00063	0.0000041	0.000048

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-01	SW-DUP01	SW-BLANK01	CR-REF
					Client sampling date / time	07-Mar-2024 09:55	07-Mar-2024 13:30	07-Mar-2024 13:30	07-Mar-2024 13:30	08-Mar-2024 10:10
						WP2405786-001	WP2405786-002	WP2405786-003	WP2405786-004	WP2405786-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00024	0.00054	0.00058	0.00012	0.00118
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.0073	0.929	0.939	Not Detected	0.020
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		Not Detected	0.000120	0.000117	0.000015	0.000020
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0050	0.0012	0.0012	Not Detected	0.0014
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		7.09	2.21	2.19	0.0068	2.60
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0973	0.109	0.110	0.000090	0.00202
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000783	0.000093	0.000070	0.000050	0.000210
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00013	0.00075	0.00082	Not Detected	0.00114
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	0.0079	0.023	Not Detected	0.0087
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.83	0.612	0.597	Not Detected	1.00
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00055	0.00185	0.00187	Not Detected	0.00170
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000202	0.000163	0.000138	0.0000065	0.000086
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.02	2.86	2.94	Not Detected	1.48
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	0.0000016	0.0000016	0.0000015	0.0000028
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.32	1.49	1.54	0.014	2.32
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0441	0.0215	0.0214	0.000066	0.0293
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.22	0.45	0.47	Not Detected	1.96
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000010	0.0000076	0.0000070	0.0000011	0.0000094
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	0.00014	0.00015	Not Detected	0.000016
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000040	0.000021	0.000032	0.00025 RRV	0.000090
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00022	0.00358	0.00370	Not Detected	0.000092
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000018	Not Detected	Not Detected	Not Detected	0.000028
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.00190	0.000075	0.000072	0.0000018	0.000095
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00082	0.00058	0.00059	0.000058	0.00027
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00044	0.0034	0.0038	0.00089	0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.000045	0.00046	0.00046	Not Detected	0.000092
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	SW-01	SW-DUP01	SW-BLANK01	CR-REF
					Client sampling date / time	07-Mar-2024 09:55	07-Mar-2024 13:30	07-Mar-2024 13:30	07-Mar-2024 13:30	08-Mar-2024 10:10
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2405786-001	WP2405786-002	WP2405786-003	WP2405786-004	WP2405786-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	CR-FDP	TRAVEL BLANK	----	----	----
				Client sampling date / time	08-Mar-2024 11:20	07-Mar-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2405786-006	WP2405786-007	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.79	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	0.30	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.8	2.1	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	39.5	<1.0	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	39.5	<1.0	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	113	Not Detected	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	48.8	<0.50	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	50.2	<0.50	----	----	----
pH	----	E108/WP	0.10	pH units	7.51	5.60	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	77.5	<3.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	2.9	<1.0	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0248	0.0238	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	3.80	Not Detected	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.173	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.175	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0019	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0248	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	7.61	<0.30	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	TRAVEL BLANK	----	----	----
					Client sampling date / time	08-Mar-2024 11:20	07-Mar-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2405786-006	WP2405786-007	--------	--------	--------
						Result	Result	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		13.6	0.60	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0560	0.0013	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00045	0.000013	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0105	0.000031	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0104	Not Detected	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000085	0.00000038	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000014	0.0000019	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0081	0.0013	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000041	Not Detected	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		14.6	0.0059	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.0000086	0.0000017	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00032	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00032	Not Detected	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000096	Not Detected	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00170	Not Detected	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.076	Not Detected	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000046	Not Detected	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0021	Not Detected	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.34	0.00060	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00509	Not Detected	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000273	Not Detected	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00147	Not Detected	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.023	0.0070	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.40	Not Detected	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00217	Not Detected	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000120	Not Detected	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.04	0.033	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	TRAVEL BLANK	----	----	----
					Client sampling date / time	08-Mar-2024 11:20	07-Mar-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2405786-006	WP2405786-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000012	Not Detected	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.22	0.0056	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0388	Not Detected	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.53	Not Detected	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000016	Not Detected	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000019	Not Detected	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	0.000038	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00241	Not Detected	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000036	Not Detected	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000123	Not Detected	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00049	0.00014	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0033	Not Detected	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00013	Not Detected	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0062	0.00036	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00044	Not Detected	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.0100	Not Detected	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0102	0.000012	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000021	0.0000022	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		0.000012	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0074	0.0012	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000057	0.0000024	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		14.0	Not Detected	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000035	Not Detected	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00016	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00016	Not Detected	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000061	Not Detected	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00149	Not Detected	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.026	Not Detected	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	TRAVEL BLANK	----	----	----
					Client sampling date / time	08-Mar-2024 11:20	07-Mar-2024 00:00	----	----	----
						WP2405786-006	WP2405786-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000025	Not Detected	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0019	Not Detected	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.35	Not Detected	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00269	Not Detected	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000261	Not Detected	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00137	Not Detected	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.012	Not Detected	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.36	Not Detected	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00204	Not Detected	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000115	Not Detected	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.95	0.013	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000023	Not Detected	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		3.00	Not Detected	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0364	Not Detected	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.70	Not Detected	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.000011	Not Detected	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000019	Not Detected	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000021	0.000017	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00014	Not Detected	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000033	Not Detected	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000119	Not Detected	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00033	0.000057	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0026	Not Detected	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00011	Not Detected	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Laboratory	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2405786**	Page	: 1 of 29
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Mar-2024 09:30
PO	: PPR-022-3	Issue Date	: 20-Mar-2024 14:39
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	08-Mar-2024	13-Mar-2024	28 days	5 days	✓	13-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	08-Mar-2024	13-Mar-2024	28 days	5 days	✓	13-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-BLANK01	E298	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP01	E298	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) TRAVEL BLANK	E298	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-FDP	E235.Cl-L	08-Mar-2024	12-Mar-2024	28 days	4 days	✓	12-Mar-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.Cl-L	08-Mar-2024	12-Mar-2024	28 days	4 days	✓	12-Mar-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.Cl-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-03	E235.Cl-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-BLANK01	E235.Cl-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP01	E235.Cl-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
TRAVEL BLANK	E235.Cl-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-FDP	E235.NO3-L	08-Mar-2024	12-Mar-2024	7 days	4 days	✓	12-Mar-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.NO3-L	08-Mar-2024	12-Mar-2024	7 days	4 days	✓	12-Mar-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO3-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-03	E235.NO3-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-BLANK01	E235.NO3-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP01	E235.NO3-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
TRAVEL BLANK	E235.NO3-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-FDP	E235.NO2-L	08-Mar-2024	12-Mar-2024	7 days	4 days	✓	12-Mar-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
CR-REF	E235.NO2-L	08-Mar-2024	12-Mar-2024	7 days	4 days	✓	12-Mar-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO2-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-03	E235.NO2-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-BLANK01	E235.NO2-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP01	E235.NO2-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
TRAVEL BLANK	E235.NO2-L	07-Mar-2024	12-Mar-2024	7 days	5 days	✓	12-Mar-2024	7 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
CR-FDP	E235.SO4	08-Mar-2024	12-Mar-2024	28 days	4 days	✓	12-Mar-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
CR-REF	E235.SO4	08-Mar-2024	12-Mar-2024	28 days	4 days	✓	12-Mar-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-01	E235.SO4	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-03	E235.SO4	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-BLANK01	E235.SO4	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-DUP01	E235.SO4	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] TRAVEL BLANK	E235.SO4	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	08-Mar-2024	12-Mar-2024	28 days	4 days	✓	13-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	08-Mar-2024	12-Mar-2024	28 days	4 days	✓	13-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	13-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-03	E372-U	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	13-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-BLANK01	E372-U	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	13-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP01	E372-U	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	13-Mar-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) TRAVEL BLANK	E372-U	07-Mar-2024	12-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E339-L	08-Mar-2024	14-Mar-2024	14 days	6 days	✓	14-Mar-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	08-Mar-2024	14-Mar-2024	14 days	6 days	✓	14-Mar-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK01	E339-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP01	E339-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E339-L	07-Mar-2024	14-Mar-2024	14 days	8 days	✓	14-Mar-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	08-Mar-2024	14-Mar-2024	14 days	6 days	✓	14-Mar-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	08-Mar-2024	14-Mar-2024	14 days	6 days	✓	14-Mar-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK01	E333-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP01	E333-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E333-L	07-Mar-2024	14-Mar-2024	14 days	8 days	✓	14-Mar-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	08-Mar-2024	14-Mar-2024	14 days	6 days	✓	14-Mar-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	08-Mar-2024	14-Mar-2024	14 days	6 days	✓	14-Mar-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK01	E336-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP01	E336-L	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	14-Mar-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E336-L	07-Mar-2024	14-Mar-2024	14 days	8 days	✓	14-Mar-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	08-Mar-2024	14-Mar-2024	180 days	6 days	✓	14-Mar-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	08-Mar-2024	14-Mar-2024	180 days	6 days	✓	14-Mar-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-BLANK01	E421.Cr-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP01	E421.Cr-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.Cr-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	08-Mar-2024	15-Mar-2024	28 days	7 days	✓	15-Mar-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	08-Mar-2024	15-Mar-2024	28 days	7 days	✓	15-Mar-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-BLANK01	E509	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP01	E509	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) TRAVEL BLANK	E509	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	08-Mar-2024	14-Mar-2024	180 days	6 days	✓	14-Mar-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	08-Mar-2024	14-Mar-2024	180 days	6 days	✓	14-Mar-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-BLANK01	E421	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP01	E421	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) TRAVEL BLANK	E421	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	08-Mar-2024	14-Mar-2024	180 days	6 days	✓	14-Mar-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	08-Mar-2024	14-Mar-2024	180 days	6 days	✓	14-Mar-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-BLANK01	E421.P-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-DUP01	E421.P-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.P-L	07-Mar-2024	14-Mar-2024	180 days	7 days	✓	14-Mar-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	08-Mar-2024	----	----	----		12-Mar-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	08-Mar-2024	----	----	----		12-Mar-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	07-Mar-2024	----	----	----		12-Mar-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-03	EF001	07-Mar-2024	----	----	----		12-Mar-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-DUP01	EF001	07-Mar-2024	----	----	----		12-Mar-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	08-Mar-2024	12-Mar-2024	28 days	4 days	✓	12-Mar-2024	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-REF	E358-L	08-Mar-2024	12-Mar-2024	28 days	4 days	✓	12-Mar-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-03	E358-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-BLANK01	E358-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP01	E358-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) TRAVEL BLANK	E358-L	07-Mar-2024	12-Mar-2024	28 days	5 days	✓	12-Mar-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	08-Mar-2024	14-Mar-2024	14 days	6 days	✓	18-Mar-2024	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	08-Mar-2024	14-Mar-2024	14 days	6 days	✓	18-Mar-2024	14 days	10 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	18-Mar-2024	14 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-03	E283	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	18-Mar-2024	14 days	11 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-BLANK01	E283	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	18-Mar-2024	14 days	11 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP01	E283	07-Mar-2024	14-Mar-2024	14 days	7 days	✓	18-Mar-2024	14 days	11 days	✓
Physical Tests : Acidity by Titration										
HDPE TRAVEL BLANK	E283	07-Mar-2024	14-Mar-2024	14 days	8 days	✓	18-Mar-2024	14 days	11 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	08-Mar-2024	13-Mar-2024	14 days	5 days	✓	13-Mar-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	08-Mar-2024	13-Mar-2024	14 days	5 days	✓	13-Mar-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-03	E290	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-BLANK01	E290	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-DUP01	E290	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] TRAVEL BLANK	E290	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	08-Mar-2024	13-Mar-2024	28 days	5 days	✓	13-Mar-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	08-Mar-2024	13-Mar-2024	28 days	5 days	✓	13-Mar-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-BLANK01	E100	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP01	E100	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] TRAVEL BLANK	E100	07-Mar-2024	13-Mar-2024	28 days	6 days	✓	13-Mar-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	08-Mar-2024	13-Mar-2024	14 days	5 days	✓	13-Mar-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	08-Mar-2024	13-Mar-2024	14 days	5 days	✓	13-Mar-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-BLANK01	E108	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP01	E108	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] TRAVEL BLANK	E108	07-Mar-2024	13-Mar-2024	14 days	6 days	✓	13-Mar-2024	14 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	08-Mar-2024	----	----	----		13-Mar-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	08-Mar-2024	----	----	----		13-Mar-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-BLANK01	E162-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP01	E162-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] TRAVEL BLANK	E162-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	08-Mar-2024	----	----	----		13-Mar-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	08-Mar-2024	----	----	----		13-Mar-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-BLANK01	E160-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-DUP01	E160-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
TRAVEL BLANK	E160-L	07-Mar-2024	----	----	----		13-Mar-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
CR-FDP	E420.Cr-L	08-Mar-2024	13-Mar-2024	180 days	5 days	✓	13-Mar-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
CR-REF	E420.Cr-L	08-Mar-2024	13-Mar-2024	180 days	5 days	✓	13-Mar-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-01	E420.Cr-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-03	E420.Cr-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-BLANK01	E420.Cr-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-DUP01	E420.Cr-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.Cr-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	08-Mar-2024	15-Mar-2024	28 days	7 days	✓	15-Mar-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	08-Mar-2024	15-Mar-2024	28 days	7 days	✓	15-Mar-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-BLANK01	E508	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP01	E508	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) TRAVEL BLANK	E508	07-Mar-2024	15-Mar-2024	28 days	8 days	✓	15-Mar-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	08-Mar-2024	13-Mar-2024	180 days	5 days	✓	13-Mar-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	08-Mar-2024	13-Mar-2024	180 days	5 days	✓	13-Mar-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-BLANK01	E420	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP01	E420	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) TRAVEL BLANK	E420	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	08-Mar-2024	13-Mar-2024	180 days	5 days	✓	13-Mar-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	08-Mar-2024	13-Mar-2024	180 days	5 days	✓	13-Mar-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-BLANK01	E420.P-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP01	E420.P-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.P-L	07-Mar-2024	13-Mar-2024	180 days	6 days	✓	13-Mar-2024	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1367029	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1365744	2	18	11.1	5.0	✓
Ammonia by Fluorescence	E298	1364116	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1362989	0	7	0.0	5.0	✗
Conductivity in Water	E100	1365745	2	15	13.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1365699	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1367630	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1365697	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1363099	1	16	6.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1365698	0	10	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1366180	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1362987	0	7	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1362988	0	7	0.0	5.0	✗
pH by Meter	E108	1365746	3	38	7.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1362984	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1364100	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1364129	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1366181	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1367627	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1364128	1	24	4.1	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1363463	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1364127	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1364099	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1366179	1	11	9.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1367029	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1365744	2	18	11.1	5.0	✓
Ammonia by Fluorescence	E298	1364116	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1362989	1	7	14.2	5.0	✓
Conductivity in Water	E100	1365745	2	15	13.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1365699	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1367630	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1365697	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1363099	1	16	6.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1365698	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1366180	1	11	9.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1362987	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1362988	1	7	14.2	5.0	✓
pH by Meter	E108	1365746	3	38	7.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1362984	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1364100	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1364129	2	7	28.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1366181	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1367627	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1364128	2	24	8.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1363463	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1364127	2	13	15.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1364099	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1366179	1	11	9.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1367029	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1365744	2	18	11.1	5.0	✓
Ammonia by Fluorescence	E298	1364116	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1362989	1	7	14.2	5.0	✓
Conductivity in Water	E100	1365745	2	15	13.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1365699	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1367630	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1365697	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1363099	1	16	6.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1365698	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1366180	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1362987	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1362988	1	7	14.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1362984	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1364100	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1364129	2	7	28.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1366181	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1367627	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1364128	2	24	8.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1363463	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1364127	2	13	15.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1364099	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1366179	1	11	9.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1364116	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1362989	0	7	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1365699	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1367630	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1365697	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1363099	1	16	6.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1365698	0	10	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1366180	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1362987	0	7	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1362988	0	7	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1362984	1	14	7.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1364129	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1366181	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1367627	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1364128	1	24	4.1	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1363463	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1364127	1	13	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1366179	1	11	9.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2405786**	Page	: 1 of 22
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Mar-2024 09:30
PO	: PPR-022-3	Date Analysis Commenced	: 12-Mar-2024
C-O-C number	: ----	Issue Date	: 20-Mar-2024 14:51
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1364099)											
WP2405761-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1364100)											
WP2405761-004	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	1390	1400	0.969%	20%	----
Physical Tests (QC Lot: 1365744)											
WP2405786-007	TRAVEL BLANK	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1365745)											
WP2405786-007	TRAVEL BLANK	Conductivity	----	E100	1.0	µS/cm	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1365746)											
WP2405786-007	TRAVEL BLANK	pH	----	E108	0.10	pH units	5.60	5.44	2.90%	4%	----
Physical Tests (QC Lot: 1365798)											
WP2406042-003	Anonymous	pH	----	E108	0.10	pH units	7.64	7.66	0.261%	4%	----
Physical Tests (QC Lot: 1365799)											
WP2406042-003	Anonymous	Conductivity	----	E100	2.0	µS/cm	308	308	0.00%	10%	----
Physical Tests (QC Lot: 1365800)											
WP2406042-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	71.1	69.1	2.85%	20%	----
Physical Tests (QC Lot: 1367029)											
WP2405761-004	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	6.9	6.9	0.02	Diff <2x LOR	----
Physical Tests (QC Lot: 1371833)											
WP2406475-001	Anonymous	pH	----	E108	0.10	pH units	7.24	7.14	1.39%	4%	----
Anions and Nutrients (QC Lot: 1362984)											
WP2405716-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	43.8	43.7	0.234%	20%	----
Anions and Nutrients (QC Lot: 1363463)											
WP2405671-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.334	0.336	0.628%	20%	----
Anions and Nutrients (QC Lot: 1364116)											
WP2405786-001	SW-03	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0352	0.0340	0.0012	Diff <2x LOR	----
Cyanides (QC Lot: 1366179)											
WP2405786-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1366180)											
WP2405786-001	SW-03	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1366181)											

Sub-Matrix: **Water**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Cyanides (QC Lot: 1366181) - continued											
WP2405786-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1363099)											
WP2405773-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	15.6	15.4	1.26%	20%	----
Total Metals (QC Lot: 1364130)											
WP2405786-007	TRAVEL BLANK	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1364130) - continued											
WP2405786-007	TRAVEL BLANK	Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1364131)											
WP2405786-007	TRAVEL BLANK	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
Total Metals (QC Lot: 1364132)											
WP2405786-007	TRAVEL BLANK	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1367627)											
WP2405648-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000528	0.0000611	14.6%	20%	----
Dissolved Metals (QC Lot: 1365697)											
WP2405687-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.436	0.446	2.18%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00084	0.00087	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0132	0.0133	0.937%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000024	0.000023	0.000001	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.010	0.010	0.0002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000086	0.0000085	0.0000002	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	6.98	6.89	1.31%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000027	0.000026	0.0000008	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00078	0.00082	0.00003	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00019	0.00018	0.000008	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00612	0.00606	1.07%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.998	1.03	3.57%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000620	0.000626	0.916%	20%	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0018	0.0018	0.00003	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.98	2.97	0.171%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0306	0.0309	1.12%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1365697) - continued											
WP2405687-001	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000090	0.000090	0.0000002	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00125	0.00124	0.00002	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.04	1.04	0.618%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00252	0.00250	0.937%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000174	0.000142	0.000032	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.11	3.13	0.703%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	12.2	12.1	0.766%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0258	0.0264	1.94%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.81	0.79	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	0.00031	0.00031	0.000002	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.0153	0.0162	5.51%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000269	0.000273	1.44%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00153	0.00152	0.00001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0036	0.0036	0.00002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00117	0.00122	0.00005	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1367630)											
WP2405671-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1364099)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1364100)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1365744)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1365745)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1365799)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1365800)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1367029)						
Acidity (as CaCO3)	----	E283	2	mg/L	2.4	----
Anions and Nutrients (QCLot: 1362984)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1362987)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1362988)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1362989)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1363463)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1364116)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1366179)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1366180)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1366181)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1363099)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1363099) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1364127)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1364128)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1364128) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1364129)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1364130)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1364130) - continued						
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1364131)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1364132)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1367627)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1365697)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1365697) - continued						
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1365698)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1365699)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1367630)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1364099)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	98.0	85.0	115	----
Physical Tests (QCLot: 1364100)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	92.3	85.0	115	----
Physical Tests (QCLot: 1365744)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	104	85.0	115	----
Physical Tests (QCLot: 1365745)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1365746)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1365798)									
pH	----	E108	----	pH units	7 pH units	99.8	98.0	102	----
Physical Tests (QCLot: 1365799)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1365800)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1367029)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Physical Tests (QCLot: 1371833)									
pH	----	E108	----	pH units	7 pH units	99.8	98.0	102	----
Anions and Nutrients (QCLot: 1362984)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1362987)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1362988)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1362989)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1363463)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	97.6	80.0	120	----
Anions and Nutrients (QCLot: 1364116)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.7	85.0	115	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1366179)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	96.9	80.0	120	----
Cyanides (QCLot: 1366180)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	101	80.0	120	----
Cyanides (QCLot: 1366181)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.6	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1363099)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.6	80.0	120	----
Total Metals (QCLot: 1364127)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Total Metals (QCLot: 1364128)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	98.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	105	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	97.9	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.4	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.3	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	97.1	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.6	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.9	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1364128) - continued									
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	95.3	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	92.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.1	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.1	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	91.3	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	99.0	80.0	120	----
Total Metals (QCLot: 1364129)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Total Metals (QCLot: 1364130)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	99.5	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	97.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	105	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.2	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	97.6	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.1	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.5	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	89.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.3	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1364130) - continued									
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.2	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	100.0	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	92.9	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	94.4	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	96.5	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	85.8	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	99.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	105	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.9	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100.0	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.0	80.0	120	----
Total Metals (QCLot: 1364131)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Total Metals (QCLot: 1364132)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	100.0	80.0	120	----
Total Metals (QCLot: 1367627)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1365697)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	107	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	110	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	99.4	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	108	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1365697) - continued									
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	99.9	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.9	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	95.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	93.8	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	90.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	106	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	91.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	98.9	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	93.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	99.1	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	96.5	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	99.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	93.3	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.7	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	107	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	112	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	104	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	106	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.4	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Dissolved Metals (QCLot: 1365699)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	95.3	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1367630) - continued									
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1362984)										
WP2405716-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.2 mg/L	100 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1363463)										
WP2405761-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.242 mg/L	0.25 mg/L	96.9	70.0	130	----
Anions and Nutrients (QCLot: 1364116)										
WP2405786-001	SW-03	Ammonia, total (as N)	7664-41-7	E298	0.0984 mg/L	0.1 mg/L	98.4	75.0	125	----
Cyanides (QCLot: 1366179)										
WP2405786-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.127 mg/L	0.125 mg/L	102	75.0	125	----
Cyanides (QCLot: 1366180)										
WP2405786-001	SW-03	Cyanide, free	----	E339-L	0.130 mg/L	0.125 mg/L	104	75.0	125	----
Cyanides (QCLot: 1366181)										
WP2405786-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.229 mg/L	0.25 mg/L	91.4	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1363099)										
WP2405773-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	5 mg/L	ND	70.0	130	----
Total Metals (QCLot: 1364130)										
WP2405786-007	TRAVEL BLANK	Aluminum, total	7429-90-5	E420	0.193 mg/L	0.2 mg/L	96.5	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0393 mg/L	0.04 mg/L	98.4	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Boron, total	7440-42-8	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	4.02 mg/L	4 mg/L	100	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0196 mg/L	0.02 mg/L	98.3	70.0	130	----
		Copper, total	7440-50-8	E420	0.0192 mg/L	0.02 mg/L	96.3	70.0	130	----
		Iron, total	7439-89-6	E420	1.83 mg/L	2 mg/L	91.5	70.0	130	----
		Lead, total	7439-92-1	E420	0.0198 mg/L	0.02 mg/L	99.3	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0967 mg/L	0.1 mg/L	96.7	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1364130) - continued										
WP2405786-007	TRAVEL BLANK	Magnesium, total	7439-95-4	E420	0.944 mg/L	1 mg/L	94.4	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0386 mg/L	0.04 mg/L	96.4	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.43 mg/L	10 mg/L	94.3	70.0	130	----
		Potassium, total	7440-09-7	E420	3.89 mg/L	4 mg/L	97.3	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0375 mg/L	0.04 mg/L	93.7	70.0	130	----
		Silicon, total	7440-21-3	E420	9.12 mg/L	10 mg/L	91.2	70.0	130	----
		Silver, total	7440-22-4	E420	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----
		Sodium, total	7440-23-5	E420	1.98 mg/L	2 mg/L	99.2	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Sulfur, total	7704-34-9	E420	18.3 mg/L	20 mg/L	91.7	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0437 mg/L	0.04 mg/L	109	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00393 mg/L	0.004 mg/L	98.2	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Tin, total	7440-31-5	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00398 mg/L	0.004 mg/L	99.4	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0972 mg/L	0.1 mg/L	97.2	70.0	130	----
		Zinc, total	7440-66-6	E420	0.392 mg/L	0.4 mg/L	97.9	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
Total Metals (QCLot: 1364131)										
WP2405786-007	TRAVEL BLANK	Chromium, total	7440-47-3	E420.Cr-L	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
Total Metals (QCLot: 1364132)										
WP2405786-007	TRAVEL BLANK	Phosphorus, total	7723-14-0	E420.P-L	9.43 mg/L	10 mg/L	94.3	70.0	130	----
Total Metals (QCLot: 1367627)										
WP2405661-001	Anonymous	Mercury, total	7439-97-6	E508	0.000101 mg/L	0.0001 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1365697)										
WP2405687-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	ND mg/L	0.2 mg/L	ND	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0233 mg/L	0.02 mg/L	116	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1365697) - continued										
WP2405687-001	Anonymous	Beryllium, dissolved	7440-41-7	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.097 mg/L	0.1 mg/L	96.8	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0393 mg/L	0.04 mg/L	98.3	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0190 mg/L	0.02 mg/L	95.1	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.93 mg/L	2 mg/L	96.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0943 mg/L	0.1 mg/L	94.3	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0383 mg/L	0.04 mg/L	95.7	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.5 mg/L	10 mg/L	105	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.12 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00425 mg/L	0.004 mg/L	106	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.1 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0496 mg/L	0.04 mg/L	124	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0229 mg/L	0.02 mg/L	115	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0223 mg/L	0.02 mg/L	111	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0426 mg/L	0.04 mg/L	107	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00422 mg/L	0.004 mg/L	105	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.409 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0439 mg/L	0.04 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1367630)										
WP2405786-001	SW-03	Mercury, dissolved	7439-97-6	E509	0.000103 mg/L	0.0001 mg/L	103	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** CB/AP/EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]				[redacted]		
	SW-03	7-Mar-24	9:55	water	10	X			7.63	0	70.7
	SW-01	7-Mar-24	13:30	water	10	X			6.84	0.4	32.6
	SW-DUP01	7-Mar-24	13:30	water	10	X			6.84	0.4	32.6
	SW-BLANK01	7-Mar-24	13:30	water	10	X			/	/	/
	CR-REF	8-Mar-24	10:10	water	10	X			7.9	0.2	49.5
	CR-FDP	8-Mar-24	11:20	water	10	X			7.79	0.3	49.7
	TRAVEL BLANK	7-Mar-24	n/a	water	8	X			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIP
Released by: EM	March 11 2024	Time: 9:00	Received by:	Date: MAR 12 2024	Time: 930	Received b

Environmental Division
Winnipeg
Work Order Reference
WP2405786

Telephone : +1 204 255 9720

cooler 1 of 2

11.9°C.

Sample Intake					
Client:	Enloss				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)	03	Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	14x500, 7x125	Yellow/Black		14x40mL	
Purple/White	14x125	Light blue/White			
Warm red/White	14x60	Orange/Black			
Dark Green/White	7x60	Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC		✓
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2406277**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 15-Mar-2024 10:20
PO	: PPR-022-3	Date Analysis Commenced	: 15-Mar-2024
C-O-C number	: ----	Issue Date	: 22-Mar-2024 14:19
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	13-Mar-2024 12:30	----	----	----	----
						WP2406277-001	--------	--------	--------	--------
						Result	----	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.49	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		<0.10	----	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		3.9	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		49.1	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		49.1	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		109	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		52.9	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		48.2	----	----	----	----
pH	----	E108/WP	0.10	pH units		7.61	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		65.4	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		8.2	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.299	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.49	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.191	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.196	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0047	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0376	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.13	----	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	13-Mar-2024 12:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2406277-001	--------	--------	--------	--------
						Result	----	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		15.5	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.311	----	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000081	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00154	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0141	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000016	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000051	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0074	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000112	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		13.0	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000034	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00072	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00072	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00024	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00118	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.658	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000185	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.82	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0595	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000228	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00078	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.042	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.042	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.31	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00268	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	13-Mar-2024 12:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2406277-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000107	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.06	----	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000020	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.06	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0282	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.64	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000063	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000072	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000095	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0140	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00012	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000168	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00118	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0044	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00033	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.123	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000068	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00157	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0161	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000012	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0051	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000033	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		14.6	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.000014	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00034	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00034	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00016	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	13-Mar-2024 12:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2406277-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00079	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.379	----	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000082	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0012	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.00	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0613	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000269	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00058	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.011	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.27	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00215	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000074	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.05	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000066	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.25	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0340	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.46	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000023	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000048	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00559	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00012	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000169	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00055	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0024	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00040	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	13-Mar-2024 12:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2406277-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2406277**	Page	: 1 of 14
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 15-Mar-2024 10:20
PO	: PPR-022-3	Issue Date	: 22-Mar-2024 14:19
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG3-1371350 001	----	Magnesium, total	7439-95-4	E420	0.0080 B mg/L	0.005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	13-Mar-2024	18-Mar-2024	28 days	5 days	✓	18-Mar-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	13-Mar-2024	15-Mar-2024	28 days	2 days	✓	15-Mar-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	13-Mar-2024	15-Mar-2024	7 days	2 days	✓	15-Mar-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO2-L	13-Mar-2024	15-Mar-2024	7 days	2 days	✓	15-Mar-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08	E235.SO4	13-Mar-2024	15-Mar-2024	28 days	2 days	✓	15-Mar-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	13-Mar-2024	19-Mar-2024	28 days	6 days	✓	20-Mar-2024	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	13-Mar-2024	20-Mar-2024	14 days	7 days	✓	20-Mar-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E333-L	13-Mar-2024	20-Mar-2024	14 days	7 days	✓	20-Mar-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E336-L	13-Mar-2024	20-Mar-2024	14 days	7 days	✓	20-Mar-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08	E421.Cr-L	13-Mar-2024	19-Mar-2024	180 days	6 days	✓	19-Mar-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	13-Mar-2024	22-Mar-2024	28 days	9 days	✓	22-Mar-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	13-Mar-2024	19-Mar-2024	180 days	6 days	✓	19-Mar-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	13-Mar-2024	19-Mar-2024	180 days	6 days	✓	19-Mar-2024	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	13-Mar-2024	----	----	----		15-Mar-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	13-Mar-2024	16-Mar-2024	28 days	3 days	✓	16-Mar-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	13-Mar-2024	16-Mar-2024	14 days	3 days	✓	18-Mar-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	13-Mar-2024	19-Mar-2024	14 days	6 days	✓	19-Mar-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	13-Mar-2024	19-Mar-2024	28 days	6 days	✓	19-Mar-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	13-Mar-2024	19-Mar-2024	14 days	6 days	✓	19-Mar-2024	14 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	13-Mar-2024	----	----	----		18-Mar-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	13-Mar-2024	----	----	----		18-Mar-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	13-Mar-2024	19-Mar-2024	180 days	6 days	✓	19-Mar-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	13-Mar-2024	22-Mar-2024	28 days	9 days	✓	22-Mar-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	13-Mar-2024	19-Mar-2024	180 days	6 days	✓	19-Mar-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	13-Mar-2024	19-Mar-2024	180 days	6 days	✓	19-Mar-2024	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1369359	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1371426	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1370218	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1370215	1	2	50.0	5.0	✓
Conductivity in Water	E100	1371424	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1371357	0	1	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1376389	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1371355	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1369082	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1371356	0	10	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1373144	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1370213	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1370214	1	3	33.3	5.0	✓
pH by Meter	E108	1371425	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1370212	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1369862	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1371351	0	1	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1373145	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1376387	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1371350	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1372806	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1371352	0	3	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1369861	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1373146	1	1	100.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1369359	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1371426	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1370218	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1370215	1	2	50.0	5.0	✓
Conductivity in Water	E100	1371424	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1371357	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1376389	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1371355	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1369082	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1371356	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1373144	1	2	50.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1370213	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1370214	1	3	33.3	5.0	✓
pH by Meter	E108	1371425	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1370212	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1369862	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1371351	1	1	100.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1373145	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1376387	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1371350	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1372806	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1371352	1	3	33.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1369861	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1373146	1	1	100.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1369359	1	7	14.2	5.0	✓
Alkalinity Species by Titration	E290	1371426	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1370218	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1370215	1	2	50.0	5.0	✓
Conductivity in Water	E100	1371424	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1371357	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1376389	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1371355	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1369082	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1371356	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1373144	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1370213	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1370214	1	3	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1370212	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1369862	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1371351	1	1	100.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1373145	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1376387	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1371350	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1372806	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1371352	1	3	33.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1369861	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1373146	1	1	100.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1370218	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1370215	1	2	50.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1371357	0	1	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1376389	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1371355	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1369082	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1371356	0	10	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1373144	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1370213	1	3	33.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1370214	1	3	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1370212	1	14	7.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1371351	0	1	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1373145	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1376387	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1371350	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1372806	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1371352	0	3	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1373146	1	1	100.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2406277**	Page	: 1 of 18
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	:	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 15-Mar-2024 10:20
PO	: PPR-022-3	Date Analysis Commenced	: 15-Mar-2024
C-O-C number	: ----	Issue Date	: 22-Mar-2024 14:19
Sampler	: ---- 807 630 0203		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1369359)											
WP2405987-001	Anonymous	Acidity (as CaCO3)	----	E283	50.0	mg/L	1120	1070	4.49%	20%	----
Physical Tests (QC Lot: 1369861)											
WP2406319-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	32.1	31.7	1.04%	20%	----
Physical Tests (QC Lot: 1369862)											
WP2406252-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	415	403	2.81%	20%	----
Physical Tests (QC Lot: 1371424)											
WP2406307-003	Anonymous	Conductivity	----	E100	2.0	µS/cm	3860	3790	1.83%	10%	----
Physical Tests (QC Lot: 1371425)											
WP2406307-003	Anonymous	pH	----	E108	0.10	pH units	7.98	8.00	0.250%	4%	----
Physical Tests (QC Lot: 1371426)											
WP2406307-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	140	139	0.715%	20%	----
Anions and Nutrients (QC Lot: 1370212)											
WP2406277-001	SW-08	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	1.13	1.13	0.006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1370213)											
WP2406277-001	SW-08	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.191	0.191	0.0151%	20%	----
Anions and Nutrients (QC Lot: 1370214)											
WP2406277-001	SW-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0047	0.0044	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1370215)											
WP2406277-001	SW-08	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.49	1.50	0.0203%	20%	----
Anions and Nutrients (QC Lot: 1370218)											
WP2406232-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.100	mg/L	2.38	2.37	0.531%	20%	----
Anions and Nutrients (QC Lot: 1372806)											
WP2406263-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	6.30	6.37	1.11%	20%	----
Cyanides (QC Lot: 1373144)											
VA24A5461-002	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1373145)											
VA24A5461-002	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1373146)											
WP2406277-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1369082)											
WP2406252-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.10	1.03	0.07	Diff <2x LOR	----
Total Metals (QC Lot: 1371350)											
WP2406253-005	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00030	0.00032	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0398	0.0413	3.79%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.145	0.147	1.16%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	52.7	52.2	0.988%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000011	0.000011	0.0000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0140	0.0140	0.593%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000187	0.000189	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0332	0.0328	1.20%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	60.4	61.1	1.15%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00022	0.00024	0.00001	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000695	0.000675	2.91%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00107	0.00104	0.00003	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	5.51	5.67	2.92%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00380	0.00357	6.25%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.70	4.67	0.553%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	28.0	28.6	2.32%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.342	0.332	3.06%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	18.2	18.4	1.21%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1371350) - continued											
WP2406253-005	Anonymous	Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000341	0.000348	2.09%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0080	0.0079	0.00009	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1376387)											
WP2406252-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1371355)											
WP2406188-018	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0190	0.0197	3.42%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00019	0.00020	0.000010	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00064	0.00064	0.000006	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0152	0.0147	3.38%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.082	0.084	0.002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000134	0.0000107	0.0000027	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	41.2	42.3	2.62%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000021	0.000019	0.000001	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00012	0.00012	0.000006	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.504	0.515	2.20%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.109	0.110	1.18%	20%	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0607	0.0611	0.670%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	20.3	20.5	1.28%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00114	0.00102	10.7%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00340	0.00339	0.216%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00208	0.00206	0.00001	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	13.8	13.8	0.0887%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00282	0.00305	7.94%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000296	0.000200	0.000097	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1371355) - continued											
WP2406188-018	Anonymous	Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.22	4.32	2.22%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	91.6	93.3	1.77%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.187	0.187	0.109%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	94.6	97.5	2.99%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000120	0.000120	0.492%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00118	0.00118	0.0000002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0363	0.0358	1.42%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1376389)											
WP2406277-001	SW-08	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1369359)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1369861)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1369862)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1371424)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1371426)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1370212)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1370213)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1370214)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1370215)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1370218)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1372806)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1373144)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1373145)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1373146)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1369082)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1371350)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1371350) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	# 0.0080	B
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1371350) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1371351)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1371352)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1376387)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1371355)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1371355) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1371356)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1371357)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1376389)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1369359)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1369861)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	96.0	85.0	115	----
Physical Tests (QCLot: 1369862)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.2	85.0	115	----
Physical Tests (QCLot: 1371424)									
Conductivity	----	E100	1	µS/cm	1412 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1371425)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1371426)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1370212)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1370213)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1370214)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1370215)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1370218)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.4	85.0	115	----
Anions and Nutrients (QCLot: 1372806)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.1	80.0	120	----
Cyanides (QCLot: 1373144)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.4	80.0	120	----
Cyanides (QCLot: 1373145)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.0	80.0	120	----
Cyanides (QCLot: 1373146)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	96.3	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1369082)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.5	80.0	120	----
Total Metals (QCLot: 1371350)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.3	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	96.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.4	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.6	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	115	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	95.9	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	109	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.1	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.2	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	105	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1371350) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.1	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.7	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.0	80.0	120	----
Total Metals (QCLot: 1371351)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1371352)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	109	80.0	120	----
Total Metals (QCLot: 1376387)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	99.5	80.0	120	----
Dissolved Metals (QCLot: 1371355)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	92.9	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.5	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	90.2	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	94.2	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	82.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	93.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.5	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.4	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	93.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	90.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	90.5	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	82.2	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	83.9	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	96.2	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	91.8	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	89.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	97.6	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1371355) - continued									
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	98.0	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	83.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	89.3	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	89.2	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	83.2	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	89.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	94.2	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.4	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	90.1	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	93.6	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.6	80.0	120	----
Dissolved Metals (QCLot: 1371357)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	93.0	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	100	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1370212)										
WP2406277-001	SW-08	Sulfate (as SO4)	14808-79-8	E235.SO4	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1370213)										
WP2406277-001	SW-08	Nitrate (as N)	14797-55-8	E235.NO3-L	2.54 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1370214)										
WP2406277-001	SW-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.498 mg/L	0.5 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 1370215)										
WP2406277-001	SW-08	Chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1370218)										
WP2406232-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	0.1 mg/L	ND	75.0	125	----
Anions and Nutrients (QCLot: 1372806)										
WP2405837-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	0.25 mg/L	ND	70.0	130	----
Cyanides (QCLot: 1373144)										
VA24A5461-002	Anonymous	Cyanide, free	----	E339-L	0.118 mg/L	0.125 mg/L	94.3	75.0	125	----
Cyanides (QCLot: 1373145)										
VA24A5461-002	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.224 mg/L	0.25 mg/L	89.4	75.0	125	----
Cyanides (QCLot: 1373146)										
WP2406277-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.119 mg/L	0.125 mg/L	95.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1369082)										
WP2406252-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.75 mg/L	5 mg/L	95.1	70.0	130	----
Total Metals (QCLot: 1371350)										
WP2406253-005	Anonymous	Aluminum, total	7429-90-5	E420	0.215 mg/L	0.2 mg/L	108	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0422 mg/L	0.04 mg/L	106	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00901 mg/L	0.01 mg/L	90.1	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	0.1 mg/L	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	4 mg/L	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1371350) - continued										
WP2406253-005	Anonymous	Cesium, total	7440-46-2	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, total	7440-50-8	E420	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Iron, total	7439-89-6	E420	2.09 mg/L	2 mg/L	105	70.0	130	----
		Lead, total	7439-92-1	E420	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.3 mg/L	10 mg/L	113	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0433 mg/L	0.04 mg/L	108	70.0	130	----
		Silicon, total	7440-21-3	E420	10.5 mg/L	10 mg/L	105	70.0	130	----
		Silver, total	7440-22-4	E420	0.00399 mg/L	0.004 mg/L	99.8	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.8 mg/L	20 mg/L	109	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00383 mg/L	0.004 mg/L	95.7	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Tin, total	7440-31-5	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0461 mg/L	0.04 mg/L	115	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00400 mg/L	0.004 mg/L	100.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, total	7440-66-6	E420	0.381 mg/L	0.4 mg/L	95.3	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
Total Metals (QCLot: 1376387)										
WP2406252-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000968 mg/L	0.0001 mg/L	96.8	70.0	130	----
Dissolved Metals (QCLot: 1371355)										
WP2406188-018	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.196 mg/L	0.2 mg/L	97.9	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1371355) - continued										
WP2406188-018	Anonymous	Arsenic, dissolved	7440-38-2	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0347 mg/L	0.04 mg/L	86.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00832 mg/L	0.01 mg/L	83.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.083 mg/L	0.1 mg/L	83.3	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00381 mg/L	0.004 mg/L	95.4	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00971 mg/L	0.01 mg/L	97.1	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0391 mg/L	0.04 mg/L	97.6	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0185 mg/L	0.02 mg/L	92.5	70.0	130	----
		Copper, dissolved	7440-50-8	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.81 mg/L	2 mg/L	90.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0820 mg/L	0.1 mg/L	82.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	1 mg/L	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0187 mg/L	0.02 mg/L	93.6	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0229 mg/L	0.02 mg/L	114	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0353 mg/L	0.04 mg/L	88.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.9 mg/L	10 mg/L	109	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	4 mg/L	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0386 mg/L	0.04 mg/L	96.5	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.21 mg/L	10 mg/L	92.1	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00377 mg/L	0.004 mg/L	94.2	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	2 mg/L	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	0.02 mg/L	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00343 mg/L	0.004 mg/L	85.9	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0187 mg/L	0.02 mg/L	93.3	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0437 mg/L	0.04 mg/L	109	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00350 mg/L	0.004 mg/L	87.5	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.371 mg/L	0.4 mg/L	92.8	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1371355) - continued										
WP2406188-018	Anonymous	Zirconium, dissolved	7440-67-7	E421	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
Dissolved Metals (QCLot: 1376389)										
WP2406736-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-08	13-Mar-24	12:30	Water	9	X			7.49	0	67.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	March 14 2024	Time: 9:00	Received by: hS	Date: 03/15/24	Time: 1020am	Received by:	Time:

5.1°C

Environmental Division
Winnipeg
Work Order Reference
WP2406277

Telephone : +1 204 255 9720

Sample Intake					
Client: Hinross - Great Bear Resources					
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	1x500	Yellow/Black	2x60		
Purple/White	2x100	Light blue/White			
Warm red/White	2x100	Orange/Black			
Dark Green/White		Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:	1x Opaque Grn 250mL				

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2407730**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 04-Apr-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 04-Apr-2024
C-O-C number	: ----	Issue Date	: 11-Apr-2024 13:13
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	----	----	----
					Client sampling date / time	02-Apr-2024 12:20	02-Apr-2024 12:30	----	----	----
						WP2407730-001	WP2407730-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		8.07	7.02	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		0.30	4.20	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	2.2	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		41.4	38.8	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		41.4	38.8	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		85.0	86.6	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		39.7	39.8	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		40.1	40.1	----	----	----
pH	----	E108/WP	0.10	pH units		7.64	7.29	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		45.7	43.7	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	1.4	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	0.0232	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.22	0.23	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.256	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.256	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0121	0.0304	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.63	0.70	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	----	----	----
					Client sampling date / time	02-Apr-2024 12:20	02-Apr-2024 12:30	----	----	----
						WP2407730-001	WP2407730-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.3	8.98	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		<0.0030	0.0098	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00187	0.00319	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00764	0.0108	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.5	11.7	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.102	0.778	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0014	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.77	2.65	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00744	0.267	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000118	0.000109	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.034	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.902 RRV	0.835	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00217	0.00194	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	----	----	----
					Client sampling date / time	02-Apr-2024 12:20	02-Apr-2024 12:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2407730-001	WP2407730-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000102	0.000058	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.68	1.97	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.70	1.36	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0251	0.0246	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.50	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000037	0.000053	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0013	0.0032	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00174	0.00243	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00770	0.0112	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	Not Detected	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.4	11.7	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		Not Detected	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	----	----	----
					Client sampling date / time	02-Apr-2024 12:20	02-Apr-2024 12:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2407730-001	WP2407730-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00055	<0.00020	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.075	0.447	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0012	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.74	2.56	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00396	0.228	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000086	0.000096	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		13.7 RRV	0.832	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00272	0.00195	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000120	0.000067	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.682	1.87	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.44	1.28	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0258	0.0254	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.58	<0.50	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000036	0.000042	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0025	0.0011	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	Not Detected	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	----	----	----
					Client sampling date / time	02-Apr-2024 12:20	02-Apr-2024 12:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2407730-001	WP2407730-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2407730**	Page	: 1 of 16
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 04-Apr-2024 09:00
PO	: PPR-022-3	Issue Date	: 11-Apr-2024 13:14
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG3-1394147 001	----	Chromium, total	7440-47-3	E420.Cr-L	0.00036 B mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	02-Apr-2024	05-Apr-2024	28 days	3 days	✓	05-Apr-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	02-Apr-2024	05-Apr-2024	28 days	3 days	✓	05-Apr-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	02-Apr-2024	04-Apr-2024	28 days	2 days	✓	04-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.Cl-L	02-Apr-2024	04-Apr-2024	28 days	2 days	✓	04-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO3-L	02-Apr-2024	04-Apr-2024	7 days	2 days	✓	04-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO3-L	02-Apr-2024	04-Apr-2024	7 days	2 days	✓	04-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	02-Apr-2024	04-Apr-2024	7 days	2 days	✓	04-Apr-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	02-Apr-2024	04-Apr-2024	7 days	2 days	✓	04-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL	E235.SO4	02-Apr-2024	04-Apr-2024	28 days	2 days	✓	04-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL-B	E235.SO4	02-Apr-2024	04-Apr-2024	28 days	2 days	✓	04-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	02-Apr-2024	05-Apr-2024	28 days	3 days	✓	08-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL-B	E372-U	02-Apr-2024	05-Apr-2024	28 days	3 days	✓	08-Apr-2024	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E339-L	02-Apr-2024	09-Apr-2024	14 days	7 days	✓	09-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E339-L	02-Apr-2024	09-Apr-2024	14 days	7 days	✓	09-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E333-L	02-Apr-2024	09-Apr-2024	14 days	7 days	✓	09-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E333-L	02-Apr-2024	09-Apr-2024	14 days	7 days	✓	09-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E336-L	02-Apr-2024	09-Apr-2024	14 days	7 days	✓	09-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E336-L	02-Apr-2024	09-Apr-2024	14 days	7 days	✓	09-Apr-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	02-Apr-2024	05-Apr-2024	180 days	3 days	✓	05-Apr-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.Cr-L	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	02-Apr-2024	11-Apr-2024	28 days	9 days	✓	11-Apr-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	02-Apr-2024	11-Apr-2024	28 days	9 days	✓	11-Apr-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	02-Apr-2024	05-Apr-2024	180 days	3 days	✓	05-Apr-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	02-Apr-2024	05-Apr-2024	180 days	3 days	✓	05-Apr-2024	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL	EF001	02-Apr-2024	----	----	----		04-Apr-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL-B	EF001	02-Apr-2024	----	----	----		04-Apr-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	02-Apr-2024	05-Apr-2024	28 days	3 days	✓	05-Apr-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL-B	E358-L	02-Apr-2024	05-Apr-2024	28 days	3 days	✓	05-Apr-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	02-Apr-2024	09-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	02-Apr-2024	09-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	02-Apr-2024	05-Apr-2024	14 days	3 days	✓	05-Apr-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	02-Apr-2024	05-Apr-2024	14 days	3 days	✓	05-Apr-2024	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	02-Apr-2024	05-Apr-2024	28 days	3 days	✓	05-Apr-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	02-Apr-2024	05-Apr-2024	28 days	3 days	✓	05-Apr-2024	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	02-Apr-2024	05-Apr-2024	14 days	3 days	✓	05-Apr-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	02-Apr-2024	05-Apr-2024	14 days	3 days	✓	05-Apr-2024	14 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	02-Apr-2024	----	----	----		08-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	02-Apr-2024	----	----	----		08-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	02-Apr-2024	----	----	----		08-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	02-Apr-2024	----	----	----		08-Apr-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	02-Apr-2024	11-Apr-2024	28 days	9 days	✓	11-Apr-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	02-Apr-2024	11-Apr-2024	28 days	9 days	✓	11-Apr-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	02-Apr-2024	08-Apr-2024	180 days	6 days	✓	08-Apr-2024	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1395896	1	2	50.0	5.0	✓
Alkalinity Species by Titration	E290	1392377	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1391848	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1391013	0	2	0.0	5.0	×
Conductivity in Water	E100	1392376	1	6	16.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1391885	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1391887	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1391886	2	12	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1395832	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1391011	0	2	0.0	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	1391012	0	2	0.0	5.0	×
pH by Meter	E108	1392375	0	16	0.0	5.0	×
Sulfate in Water by IC	E235.SO4	1391008	1	5	20.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	0	4	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1395833	1	2	50.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	0	4	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1395831	1	2	50.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1395896	1	2	50.0	5.0	✓
Alkalinity Species by Titration	E290	1392377	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1391848	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1391013	1	2	50.0	5.0	✓
Conductivity in Water	E100	1392376	1	6	16.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1391885	2	4	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1391887	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1391886	2	12	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1395832	1	2	50.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1391011	1	2	50.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1391012	1	2	50.0	5.0	✓
pH by Meter	E108	1392375	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1391008	1	5	20.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1395833	1	2	50.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1395831	1	2	50.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1395896	1	2	50.0	5.0	✓
Alkalinity Species by Titration	E290	1392377	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1391848	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1391013	1	2	50.0	5.0	✓
Conductivity in Water	E100	1392376	1	6	16.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1391885	2	4	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1391887	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1391886	2	12	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1395832	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1391011	1	2	50.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1391012	1	2	50.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1391008	1	5	20.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1395833	1	2	50.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1395831	1	2	50.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1391848	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1391013	0	2	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1391885	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1391887	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1391886	2	12	16.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1395832	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1391011	0	2	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1391012	0	2	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1391008	1	5	20.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1395833	1	2	50.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	0	4	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1395831	1	2	50.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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QUALITY CONTROL REPORT

Work Order	: **WP2407730**	Page	: 1 of 21
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 04-Apr-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 04-Apr-2024
C-O-C number	: ----	Issue Date	: 11-Apr-2024 13:14
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1392376)											
WP2407726-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	707	696	1.57%	10%	----
Physical Tests (QC Lot: 1392377)											
WP2407726-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	407	399	1.99%	20%	----
Physical Tests (QC Lot: 1394194)											
WP2407730-001	SW-GL	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1394195)											
WP2407730-001	SW-GL	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	45.7	46.7	1.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1395896)											
WP2407730-001	SW-GL	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1391008)											
WP2407726-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1391848)											
WP2407730-001	SW-GL	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1394227)											
WP2407730-001	SW-GL	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0121	0.0124	0.0003	Diff <2x LOR	----
Cyanides (QC Lot: 1395831)											
WP2407730-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1395832)											
WP2407730-001	SW-GL	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1395833)											
WP2407730-001	SW-GL	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1392189)											
WP2407730-001	SW-GL	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.3	11.6	3.15%	20%	----
Total Metals (QC Lot: 1394147)											
WP2407706-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.125	0.122	2.80%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00045	0.00048	0.00003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00060	0.00058	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0119	0.0120	0.738%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1394147) - continued											
WP2407706-001	Anonymous	Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.021	0.021	0.0002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000351	0.0000266	0.0000085	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	12.9	12.9	0.0991%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000032	0.000035	0.000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00134	0.00230	0.00095	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00077	0.00076	0.000010	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0522	0.0534	2.17%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.275	0.279	1.38%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00280	0.00272	2.87%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0045	0.0044	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.42	4.59	3.72%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0336	0.0336	0.00907%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000472	0.000468	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00313	0.00274	0.00039	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	2.43	2.46	1.02%	20%	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	14.9	15.3	2.75%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00649	0.00673	3.62%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000832	0.000865	3.89%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	3.32	3.32	0.0373%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000028	0.000028	0.00000004	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	167	175	4.95%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0228	0.0236	3.44%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	37.0	37.0	0.109%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00150	0.00151	0.688%	20%	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0276	0.0265	4.00%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000022	0.000021	0.000001	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.167	0.168	0.456%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00020	<0.00020	0.000006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1399029)											
WP2407152-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1391885)											
WP2407730-001	SW-GL	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1391886)											
WP2407730-001	SW-GL	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1391887)											
WP2407730-001	SW-GL	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0013	0.0014	0.0002	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00174	0.00169	2.77%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00770	0.00786	2.17%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	11.4	11.2	2.00%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00055	0.00056	0.000003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.075	0.073	0.002	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0016	0.0017	0.00006	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.74	2.85	4.02%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00396	0.00410	3.44%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000086	0.000085	0.000001	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	13.7	13.8	0.424%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00272	0.00272	0.250%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000120	0.000084	0.000036	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.682	0.665	2.61%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.44	1.47	1.69%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0258	0.0250	3.02%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1391887) - continued											
WP2407730-001	SW-GL	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.58	0.56	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000036	0.000035	0.000001	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0025	0.0026	0.00004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1394150)											
WP2406895-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0055	0.0051	0.0004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00017	0.00017	0.000003	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00731	0.00748	2.26%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	3.02	3.01	0.387%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00042	0.00039	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.137	0.140	2.19%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0013	0.0012	0.00004	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.867	0.859	0.919%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0150	0.0146	2.59%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.15	1.14	1.24%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1394150) - continued											
WP2406895-003	Anonymous	Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00113	0.00128	0.00015	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000060	0.000058	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.95	3.98	0.726%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.30	1.28	1.37%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0149	0.0147	1.70%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000014	0.000014	0.0000005	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0018	0.0016	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1394151)											
WP2406895-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1399030)											
WP2407152-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1392376)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1392377)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1394194)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1394195)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1395896)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1391008)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1391011)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1391012)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1391013)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1391848)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1394227)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1395831)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1395832)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1395833)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1392189)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1394147)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1394147) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1394147) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1394148)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	# 0.00036	B
Total Metals (QCLot: 1394149)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1399029)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1391885)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1391886)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1391887)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1391887) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1394150)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1394150) - continued						
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1394151)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1394152)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1399030)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1392375)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1392376)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	103	90.0	110	----
Physical Tests (QCLot: 1392377)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1394194)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.0	85.0	115	----
Physical Tests (QCLot: 1394195)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	91.8	85.0	115	----
Physical Tests (QCLot: 1395896)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	107	85.0	115	----
Anions and Nutrients (QCLot: 1391008)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.0	90.0	110	----
Anions and Nutrients (QCLot: 1391011)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1391012)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.5	90.0	110	----
Anions and Nutrients (QCLot: 1391013)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1391848)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1394227)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.0	80.0	120	----
Cyanides (QCLot: 1395831)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1395832)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	105	80.0	120	----
Cyanides (QCLot: 1395833)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1392189)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.0	80.0	120	----
Total Metals (QCLot: 1394147)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.9	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	94.7	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	97.9	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	107	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	95.0	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	91.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1394147) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.9	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	106	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.8	80.0	120	----
Total Metals (QCLot: 1394148)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Total Metals (QCLot: 1394149)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Total Metals (QCLot: 1399029)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1391885)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	109	80.0	120	----
Dissolved Metals (QCLot: 1391887)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.8	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	99.6	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.9	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.9	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	93.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	99.1	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.7	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1391887) - continued									
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	109	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	93.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	99.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.8	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.6	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.9	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	106	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.5	80.0	120	----
Dissolved Metals (QCLot: 1394150)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	107	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	111	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	107	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.9	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1394150) - continued									
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	103	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.7	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	114	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.5	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	97.6	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	114	80.0	120	----
Dissolved Metals (QCLot: 1394152)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1391008)										
WP2407726-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	95.1 mg/L	100 mg/L	95.1	75.0	125	----
Anions and Nutrients (QCLot: 1391848)										
WP2407730-001	SW-GL	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1394227)										
WP2407730-002	SW-GL-B	Phosphorus, total	7723-14-0	E372-U	0.233 mg/L	0.25 mg/L	93.1	70.0	130	----
Cyanides (QCLot: 1395831)										
WP2407730-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.124 mg/L	0.125 mg/L	99.6	75.0	125	----
Cyanides (QCLot: 1395832)										
WP2407730-001	SW-GL	Cyanide, free	----	E339-L	0.125 mg/L	0.125 mg/L	100	75.0	125	----
Cyanides (QCLot: 1395833)										
WP2407730-001	SW-GL	Cyanide, strong acid dissociable (Total)	----	E333-L	0.215 mg/L	0.25 mg/L	86.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1392189)										
WP2407730-002	SW-GL-B	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1394147)										
WP2407706-001	Anonymous	Aluminum, total	7429-90-5	E420	0.215 mg/L	0.2 mg/L	108	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Barium, total	7440-39-3	E420	0.0196 mg/L	0.02 mg/L	98.3	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00901 mg/L	0.01 mg/L	90.1	70.0	130	----
		Boron, total	7440-42-8	E420	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00398 mg/L	0.004 mg/L	99.6	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00998 mg/L	0.01 mg/L	99.8	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0182 mg/L	0.02 mg/L	90.8	70.0	130	----
		Lithium, total	7439-93-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0231 mg/L	0.02 mg/L	116	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0389 mg/L	0.04 mg/L	97.2	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.1 mg/L	10 mg/L	111	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1394147) - continued										
WP2407706-001	Anonymous	Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Silicon, total	7440-21-3	E420	11.2 mg/L	10 mg/L	112	70.0	130	----
		Silver, total	7440-22-4	E420	0.00387 mg/L	0.004 mg/L	96.6	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00350 mg/L	0.004 mg/L	87.6	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Tin, total	7440-31-5	E420	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Zinc, total	7440-66-6	E420	0.388 mg/L	0.4 mg/L	97.1	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
Total Metals (QCLot: 1399029)										
WP2407730-001	SW-GL	Mercury, total	7439-97-6	E508	0.0000969 mg/L	0 mg/L	96.9	70.0	130	----
Dissolved Metals (QCLot: 1391885)										
WP2407730-001	SW-GL	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1391886)										
WP2407730-001	SW-GL	Phosphorus, dissolved	7723-14-0	E421.P-L	10.7 mg/L	10 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 1391887)										
WP2407730-001	SW-GL	Aluminum, dissolved	7429-90-5	E421	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.116 mg/L	0.1 mg/L	116	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.92 mg/L	2 mg/L	96.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1391887) - continued										
WP2407730-001	SW-GL	Molybdenum, dissolved	7439-98-7	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.3 mg/L	10 mg/L	103	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00420 mg/L	0.004 mg/L	105	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.08 mg/L	2 mg/L	104	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.5 mg/L	20 mg/L	107	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0448 mg/L	0.04 mg/L	112	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0444 mg/L	0.04 mg/L	111	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.419 mg/L	0.4 mg/L	105	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0434 mg/L	0.04 mg/L	109	70.0	130	----
Dissolved Metals (QCLot: 1394150)										
WP2406895-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.212 mg/L	0.2 mg/L	106	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0233 mg/L	0.02 mg/L	116	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00986 mg/L	0.01 mg/L	98.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	4.01 mg/L	4 mg/L	100	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.08 mg/L	2 mg/L	104	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	1.03 mg/L	1 mg/L	103	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.14 mg/L	4 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1394150) - continued										
WP2406895-003	Anonymous	Rubidium, dissolved	7440-17-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0438 mg/L	0.04 mg/L	109	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00422 mg/L	0.004 mg/L	105	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.15 mg/L	2 mg/L	108	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.1 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0486 mg/L	0.04 mg/L	121	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00388 mg/L	0.004 mg/L	96.9	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.428 mg/L	0.4 mg/L	107	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0453 mg/L	0.04 mg/L	113	70.0	130	----
Dissolved Metals (QCLot: 1394151)										
WP2406895-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	11.1 mg/L	10 mg/L	111	70.0	130	----
Dissolved Metals (QCLot: 1399030)										
WP2407730-001	SW-GL	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To | YES | NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report | YES | NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL | MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-GL	2-Apr-24	12:20	Water	9	X			8.07	0.3	74.1
	SW-GL-B	2-Apr-24	12:30	Water	9	X			7.02	4.2	52.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	April 3 2024	Time: 9:00	Received by: KS	Date: APR 04 2024	Time: 900	Received by:	Time:

7.1°C

Environmental Division
Winnipeg
Work Order Reference
WP2407730

Telephone : +1 204 255 9720

Sample Intake					
Client: Biomass - GB Resources					
Cheque Enclosed with CoC	Yes	No			
Priority/Emergency Required (circle one)	Yes	No			
Time Sensitive Hold Time (circle one)	Yes	No			
Matrix (circle one)	Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	2x500	Yellow/Black	4x60		
Purple/White	4x100	Light blue/White			
Warm red/White	6x100	Orange/Black			
Dark Green/White	2x60	Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2407826**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Apr-2024 09:10
PO	: PPR-022-3	Date Analysis Commenced	: 05-Apr-2024
C-O-C number	: ----	Issue Date	: 12-Apr-2024 08:23
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Surface Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
						WP2407826-001	WP2407826-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.05	7.45	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		<0.10	0.70	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.2	33.3	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.2	33.3	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		96.0	95.7	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		41.1	40.4	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		41.9	41.6	----	----	----
pH	----	E108/WP	0.10	pH units		7.41	7.37	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		57.0	53.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.3	1.7	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0267	0.0106	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		3.02	2.87	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0975	0.0777	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0975	0.0777	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0165	0.0184	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		6.61	6.19	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: **Surface Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
						WP2407826-001	WP2407826-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.7	11.4	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0453	0.0537	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00036	0.00034	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00894	0.00849	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00871	0.00879	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.9	11.9	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00024	0.00020	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00067	0.00061	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00175	0.00149	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.063	0.080	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000054	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0018	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.95	2.90	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00490	0.00589	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000206	0.000257	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00136	0.00168	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.23	1.16	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00185	0.00181	----	----	----

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)					Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2407826-001	WP2407826-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000150	0.000104	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.76	1.72	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.37	2.88	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0321	0.0317	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.64	2.45	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00154	0.00274	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000103	0.000118	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0058	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0058	0.0047	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00035	0.00032	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00868	0.00841	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00808	0.00765	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.9	11.6	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00019	0.00031	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)					Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2407826-001	WP2407826-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00139	0.00130	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.023	0.025	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0015	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.77	2.78	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00290	0.00334	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000201	0.000213	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00122	0.00132	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.18	1.14	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00192	0.00166	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000119	0.000112	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.61	1.61	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		3.00	2.67	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0329	0.0311	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.47	2.23	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000098	0.000102	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0027	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: **Surface Water** (Matrix: **Water**)					Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*		**WP2407826-001**	**WP2407826-002**	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2407826**	Page	: 1 of 16
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Apr-2024 09:10
PO	: PPR-022-3	Issue Date	: 12-Apr-2024 08:23
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG3-1394147 001	----	Chromium, total	7440-47-3	E420.Cr-L	0.00036 B mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	03-Apr-2024	08-Apr-2024	28 days	5 days	✓	08-Apr-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	03-Apr-2024	08-Apr-2024	28 days	5 days	✓	08-Apr-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	03-Apr-2024	05-Apr-2024	7 days	2 days	✓	05-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	03-Apr-2024	05-Apr-2024	7 days	2 days	✓	05-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	03-Apr-2024	05-Apr-2024	7 days	2 days	✓	05-Apr-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	03-Apr-2024	05-Apr-2024	7 days	2 days	✓	05-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	08-Apr-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	08-Apr-2024	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E339-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E339-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E333-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E333-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-FDP	E509	03-Apr-2024	11-Apr-2024	28 days	8 days	✓	11-Apr-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-REF	E509	03-Apr-2024	11-Apr-2024	28 days	8 days	✓	11-Apr-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-FDP	E421	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-REF	E421	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.P-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.P-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	03-Apr-2024	----	----	----		05-Apr-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	03-Apr-2024	----	----	----		05-Apr-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-FDP	E283	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-REF	E283	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
CR-FDP	E290	03-Apr-2024	05-Apr-2024	14 days	2 days	✓	05-Apr-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
CR-REF	E290	03-Apr-2024	05-Apr-2024	14 days	2 days	✓	05-Apr-2024	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	03-Apr-2024	05-Apr-2024	14 days	2 days	✓	05-Apr-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	03-Apr-2024	05-Apr-2024	14 days	2 days	✓	05-Apr-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	03-Apr-2024	----	----	----		08-Apr-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	03-Apr-2024	----	----	----		08-Apr-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	03-Apr-2024	----	----	----		08-Apr-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	03-Apr-2024	----	----	----		08-Apr-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	03-Apr-2024	11-Apr-2024	28 days	8 days	✓	11-Apr-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	03-Apr-2024	11-Apr-2024	28 days	8 days	✓	11-Apr-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1397400	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1392400	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1394222	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1392260	0	17	0.0	5.0	✗
Conductivity in Water	E100	1392399	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1394152	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1394150	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1394151	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1397411	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1392258	0	17	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1392259	0	17	0.0	5.0	✗
pH by Meter	E108	1392398	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1392257	0	17	0.0	5.0	✗
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1397409	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	0	4	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1397410	1	8	12.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1397400	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1392400	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1394222	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1392260	1	17	5.8	5.0	✓
Conductivity in Water	E100	1392399	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1394152	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1394150	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1394151	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1397411	1	8	12.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1392258	1	17	5.8	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1392259	1	17	5.8	5.0	✓
pH by Meter	E108	1392398	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1392257	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1397409	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1397410	1	8	12.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1397400	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1392400	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1394222	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1392260	1	17	5.8	5.0	✓
Conductivity in Water	E100	1392399	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1394152	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1394150	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1394151	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1397411	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1392258	1	17	5.8	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1392259	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1392257	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1397409	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1397410	1	8	12.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1394222	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1392260	0	17	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1394152	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1394150	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1394151	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1397411	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1392258	0	17	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1392259	0	17	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1392257	0	17	0.0	5.0	✗
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1397409	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	0	4	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1397410	1	8	12.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2407826**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Apr-2024 09:10
PO	: PPR-022-3	Date Analysis Commenced	: 05-Apr-2024
C-O-C number	: ----	Issue Date	: 12-Apr-2024 08:23
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1392398)											
WP2407826-001	CR-REF	pH	----	E108	0.10	pH units	7.41	7.41	0.00%	4%	----
Physical Tests (QC Lot: 1392399)											
WP2407826-001	CR-REF	Conductivity	----	E100	1.0	µS/cm	96.0	99.3	3.38%	10%	----
Physical Tests (QC Lot: 1392400)											
WP2407826-001	CR-REF	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.2	32.8	1.21%	20%	----
Physical Tests (QC Lot: 1394194)											
WP2407730-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1394195)											
WP2407730-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	45.7	46.7	1.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1397400)											
WP2407152-002	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.5	3.6	0.08	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1394222)											
WP2407826-001	CR-REF	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0267	0.0251	0.0016	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1394227)											
WP2407730-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0121	0.0124	0.0003	Diff <2x LOR	----
Cyanides (QC Lot: 1397409)											
WP2407152-002	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0013	0.0012	0.00004	Diff <2x LOR	----
Cyanides (QC Lot: 1397410)											
WP2407152-002	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1397411)											
WP2407152-002	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1392189)											
WP2407730-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.3	11.6	3.15%	20%	----
Total Metals (QC Lot: 1394147)											
WP2407706-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.125	0.122	2.80%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00045	0.00048	0.00003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00060	0.00058	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0119	0.0120	0.738%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1394147) - continued											
WP2407706-001	Anonymous	Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.021	0.021	0.0002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000351	0.0000266	0.0000085	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	12.9	12.9	0.0991%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000032	0.000035	0.000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00134	0.00230	0.00095	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00077	0.00076	0.000010	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0522	0.0534	2.17%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.275	0.279	1.38%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00280	0.00272	2.87%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0045	0.0044	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.42	4.59	3.72%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0336	0.0336	0.00907%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000472	0.000468	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00313	0.00274	0.00039	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	2.43	2.46	1.02%	20%	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	14.9	15.3	2.75%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00649	0.00673	3.62%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000832	0.000865	3.89%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	3.32	3.32	0.0373%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000028	0.000028	0.00000004	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	167	175	4.95%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0228	0.0236	3.44%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	37.0	37.0	0.109%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00150	0.00151	0.688%	20%	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0276	0.0265	4.00%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000022	0.000021	0.000001	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.167	0.168	0.456%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00020	<0.00020	0.000006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1399029)											
WP2407152-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1394150)											
WP2406895-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0055	0.0051	0.0004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00017	0.00017	0.000003	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00731	0.00748	2.26%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	3.02	3.01	0.387%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00042	0.00039	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.137	0.140	2.19%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0013	0.0012	0.00004	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.867	0.859	0.919%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0150	0.0146	2.59%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.15	1.14	1.24%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00113	0.00128	0.00015	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000060	0.000058	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.95	3.98	0.726%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.30	1.28	1.37%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0149	0.0147	1.70%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1394150) - continued											
WP2406895-003	Anonymous	Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000014	0.000014	0.0000005	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0018	0.0016	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1394151)											
WP2406895-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1399030)											
WP2407152-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1392399)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1392400)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1394194)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1394195)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1397400)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1392257)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1392258)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1392259)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1392260)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1394222)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1394227)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1397409)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1397410)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1397411)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1392189)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1394147)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1394147) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1394147) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1394148)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	# 0.00036	B
Total Metals (QCLot: 1394149)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1399029)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1394150)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1394150) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1394151)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1394152)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1399030)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1392398)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1392399)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	105	90.0	110	----
Physical Tests (QCLot: 1392400)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1394194)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.0	85.0	115	----
Physical Tests (QCLot: 1394195)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	91.8	85.0	115	----
Physical Tests (QCLot: 1397400)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.9	85.0	115	----
Anions and Nutrients (QCLot: 1392257)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	97.6	90.0	110	----
Anions and Nutrients (QCLot: 1392258)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1392259)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.1	90.0	110	----
Anions and Nutrients (QCLot: 1392260)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1394222)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1394227)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.0	80.0	120	----
Cyanides (QCLot: 1397409)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.6	80.0	120	----
Cyanides (QCLot: 1397410)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.6	80.0	120	----
Cyanides (QCLot: 1397411)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1392189)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.0	80.0	120	----
Total Metals (QCLot: 1394147)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.9	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	94.7	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	97.9	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	107	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	95.0	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	91.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1394147) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.9	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	106	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.8	80.0	120	----
Total Metals (QCLot: 1394148)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Total Metals (QCLot: 1394149)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Total Metals (QCLot: 1399029)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1394150)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	107	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	111	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	107	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.9	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.4	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	103	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.7	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	114	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1394150) - continued									
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.5	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	97.6	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	114	80.0	120	----
Dissolved Metals (QCLot: 1394152)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1394222)										
WP2407826-001	CR-REF	Ammonia, total (as N)	7664-41-7	E298	0.101 mg/L	0.1 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1394227)										
WP2407730-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.233 mg/L	0.25 mg/L	93.1	70.0	130	----
Cyanides (QCLot: 1397409)										
WP2407152-002	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.196 mg/L	0.25 mg/L	78.5	75.0	125	----
Cyanides (QCLot: 1397410)										
WP2407152-002	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.118 mg/L	0.125 mg/L	94.5	75.0	125	----
Cyanides (QCLot: 1397411)										
WP2407152-002	Anonymous	Cyanide, free	----	E339-L	0.117 mg/L	0.125 mg/L	94.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1392189)										
WP2407730-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1394147)										
WP2407706-001	Anonymous	Aluminum, total	7429-90-5	E420	0.215 mg/L	0.2 mg/L	108	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Barium, total	7440-39-3	E420	0.0196 mg/L	0.02 mg/L	98.3	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00901 mg/L	0.01 mg/L	90.1	70.0	130	----
		Boron, total	7440-42-8	E420	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00398 mg/L	0.004 mg/L	99.6	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00998 mg/L	0.01 mg/L	99.8	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0182 mg/L	0.02 mg/L	90.8	70.0	130	----
		Lithium, total	7439-93-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0231 mg/L	0.02 mg/L	116	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0389 mg/L	0.04 mg/L	97.2	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0428 mg/L	0.04 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1394147) - continued										
WP2407706-001	Anonymous	Silicon, total	7440-21-3	E420	11.2 mg/L	10 mg/L	112	70.0	130	----
		Silver, total	7440-22-4	E420	0.00387 mg/L	0.004 mg/L	96.6	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00350 mg/L	0.004 mg/L	87.6	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Tin, total	7440-31-5	E420	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Zinc, total	7440-66-6	E420	0.388 mg/L	0.4 mg/L	97.1	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
Total Metals (QCLot: 1399029)										
WP2407730-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000969 mg/L	0 mg/L	96.9	70.0	130	----
Dissolved Metals (QCLot: 1394150)										
WP2406895-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.212 mg/L	0.2 mg/L	106	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0233 mg/L	0.02 mg/L	116	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00986 mg/L	0.01 mg/L	98.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	4.01 mg/L	4 mg/L	100	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.08 mg/L	2 mg/L	104	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	1.03 mg/L	1 mg/L	103	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.14 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0438 mg/L	0.04 mg/L	109	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00422 mg/L	0.004 mg/L	105	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1394150) - continued										
WP2406895-003	Anonymous	Sodium, dissolved	7440-23-5	E421	2.15 mg/L	2 mg/L	108	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.1 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0486 mg/L	0.04 mg/L	121	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00388 mg/L	0.004 mg/L	96.9	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.428 mg/L	0.4 mg/L	107	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0453 mg/L	0.04 mg/L	113	70.0	130	----
Dissolved Metals (QCLot: 1394151)										
WP2406895-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	11.1 mg/L	10 mg/L	111	70.0	130	----
Dissolved Metals (QCLot: 1399030)										
WP2407730-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% r
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 2
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush holidays and for
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Requ
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Analysi
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (u
	CR-REF	3-Apr-24	11:45	Water	10	X			7.05	0	133
	CR-FDP	3-Apr-24	13:20	Water	10	X			7.45	0.7	102

SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	EM	April 4 2024	Time: 8:30	Received by:	Date: APR 05 2024	Time: 910	Received by:	Time:

9.4°C

Environmental Division
Winnipeg
Work Order Reference
WP2407826

Telephone : +1 204 255 9720

Sample Intake						
Client:	Enfos					
Cheque Enclosed with CoC		Yes		No		
Priority/Emergency Required (circle one)		Yes		No		
Time Sensitive Hold Time (circle one)		Yes		No		
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White	4x500, 2x125	Yellow/Black	4x40			
Purple/White	4x100	Light blue/White				
Warm red/White	4x125	Orange/Black				
Dark Green/White	2x60	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered		✓
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2407826**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Apr-2024 09:10
PO	: PPR-022-3	Date Analysis Commenced	: 05-Apr-2024
C-O-C number	: ----	Issue Date	: 12-Apr-2024 08:23
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Surface Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
						WP2407826-001	WP2407826-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.05	7.45	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		<0.10	0.70	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.2	33.3	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.2	33.3	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		96.0	95.7	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		41.1	40.4	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		41.9	41.6	----	----	----
pH	----	E108/WP	0.10	pH units		7.41	7.37	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		57.0	53.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.3	1.7	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0267	0.0106	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		3.02	2.87	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0975	0.0777	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0975	0.0777	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0165	0.0184	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		6.61	6.19	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: **Surface Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
						WP2407826-001	WP2407826-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.7	11.4	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0453	0.0537	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00036	0.00034	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00894	0.00849	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00871	0.00879	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.9	11.9	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00024	0.00020	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00067	0.00061	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00175	0.00149	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.063	0.080	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000054	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0018	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.95	2.90	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00490	0.00589	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000206	0.000257	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00136	0.00168	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.23	1.16	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00185	0.00181	----	----	----

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)					Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2407826-001	WP2407826-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000150	0.000104	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.76	1.72	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.37	2.88	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0321	0.0317	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.64	2.45	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00154	0.00274	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000103	0.000118	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0058	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0058	0.0047	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00035	0.00032	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00868	0.00841	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00808	0.00765	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.9	11.6	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00019	0.00031	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)					Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2407826-001	WP2407826-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00139	0.00130	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.023	0.025	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0015	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.77	2.78	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00290	0.00334	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000201	0.000213	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00122	0.00132	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.18	1.14	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00192	0.00166	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000119	0.000112	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.61	1.61	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		3.00	2.67	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0329	0.0311	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.47	2.23	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000098	0.000102	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0027	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: **Surface Water** (Matrix: **Water**)					Client sample ID	CR-REF	CR-FDP	----	----	----
					Client sampling date / time	03-Apr-2024 11:45	03-Apr-2024 13:20	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*		**WP2407826-001**	**WP2407826-002**	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2407826**	Page	: 1 of 16
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Apr-2024 09:10
PO	: PPR-022-3	Issue Date	: 12-Apr-2024 08:23
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG3-1394147 001	----	Chromium, total	7440-47-3	E420.Cr-L	0.00036 B mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	03-Apr-2024	08-Apr-2024	28 days	5 days	✓	08-Apr-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	03-Apr-2024	08-Apr-2024	28 days	5 days	✓	08-Apr-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	03-Apr-2024	05-Apr-2024	7 days	2 days	✓	05-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	03-Apr-2024	05-Apr-2024	7 days	2 days	✓	05-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	03-Apr-2024	05-Apr-2024	7 days	2 days	✓	05-Apr-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	03-Apr-2024	05-Apr-2024	7 days	2 days	✓	05-Apr-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	08-Apr-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	08-Apr-2024	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E339-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E339-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E333-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E333-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	10-Apr-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-FDP	E509	03-Apr-2024	11-Apr-2024	28 days	8 days	✓	11-Apr-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-REF	E509	03-Apr-2024	11-Apr-2024	28 days	8 days	✓	11-Apr-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-FDP	E421	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-REF	E421	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.P-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.P-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	03-Apr-2024	----	----	----		05-Apr-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	03-Apr-2024	----	----	----		05-Apr-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-FDP	E283	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-REF	E283	03-Apr-2024	10-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
CR-FDP	E290	03-Apr-2024	05-Apr-2024	14 days	2 days	✓	05-Apr-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
CR-REF	E290	03-Apr-2024	05-Apr-2024	14 days	2 days	✓	05-Apr-2024	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	03-Apr-2024	05-Apr-2024	28 days	2 days	✓	05-Apr-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	03-Apr-2024	05-Apr-2024	14 days	2 days	✓	05-Apr-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	03-Apr-2024	05-Apr-2024	14 days	2 days	✓	05-Apr-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	03-Apr-2024	----	----	----		08-Apr-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	03-Apr-2024	----	----	----		08-Apr-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	03-Apr-2024	----	----	----		08-Apr-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	03-Apr-2024	----	----	----		08-Apr-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	03-Apr-2024	11-Apr-2024	28 days	8 days	✓	11-Apr-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	03-Apr-2024	11-Apr-2024	28 days	8 days	✓	11-Apr-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	03-Apr-2024	08-Apr-2024	180 days	5 days	✓	08-Apr-2024	180 days	5 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1397400	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1392400	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1394222	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1392260	0	17	0.0	5.0	✗
Conductivity in Water	E100	1392399	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1394152	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1394150	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1394151	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1397411	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1392258	0	17	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1392259	0	17	0.0	5.0	✗
pH by Meter	E108	1392398	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1392257	0	17	0.0	5.0	✗
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1397409	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	0	4	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1397410	1	8	12.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1397400	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1392400	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1394222	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1392260	1	17	5.8	5.0	✓
Conductivity in Water	E100	1392399	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1394152	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1394150	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1394151	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1397411	1	8	12.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1392258	1	17	5.8	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1392259	1	17	5.8	5.0	✓
pH by Meter	E108	1392398	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1392257	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1397409	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1397410	1	8	12.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1397400	1	6	16.6	5.0	✓
Alkalinity Species by Titration	E290	1392400	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1394222	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1392260	1	17	5.8	5.0	✓
Conductivity in Water	E100	1392399	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1394152	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1394150	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1394151	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1397411	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1392258	1	17	5.8	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1392259	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1392257	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1394195	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1397409	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1394194	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1397410	1	8	12.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1394222	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1392260	0	17	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1394152	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1394150	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1392189	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1394151	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1397411	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1392258	0	17	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1392259	0	17	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1392257	0	17	0.0	5.0	✗
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1394148	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1397409	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1394147	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1394227	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1394149	0	4	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1397410	1	8	12.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2407826**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Apr-2024 09:10
PO	: PPR-022-3	Date Analysis Commenced	: 05-Apr-2024
C-O-C number	: ----	Issue Date	: 12-Apr-2024 08:23
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1392398)											
WP2407826-001	CR-REF	pH	----	E108	0.10	pH units	7.41	7.41	0.00%	4%	----
Physical Tests (QC Lot: 1392399)											
WP2407826-001	CR-REF	Conductivity	----	E100	1.0	µS/cm	96.0	99.3	3.38%	10%	----
Physical Tests (QC Lot: 1392400)											
WP2407826-001	CR-REF	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.2	32.8	1.21%	20%	----
Physical Tests (QC Lot: 1394194)											
WP2407730-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1394195)											
WP2407730-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	45.7	46.7	1.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1397400)											
WP2407152-002	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.5	3.6	0.08	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1394222)											
WP2407826-001	CR-REF	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0267	0.0251	0.0016	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1394227)											
WP2407730-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0121	0.0124	0.0003	Diff <2x LOR	----
Cyanides (QC Lot: 1397409)											
WP2407152-002	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0013	0.0012	0.00004	Diff <2x LOR	----
Cyanides (QC Lot: 1397410)											
WP2407152-002	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1397411)											
WP2407152-002	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1392189)											
WP2407730-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.3	11.6	3.15%	20%	----
Total Metals (QC Lot: 1394147)											
WP2407706-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.125	0.122	2.80%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00045	0.00048	0.00003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00060	0.00058	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0119	0.0120	0.738%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1394147) - continued											
WP2407706-001	Anonymous	Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.021	0.021	0.0002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000351	0.0000266	0.0000085	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	12.9	12.9	0.0991%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000032	0.000035	0.000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00134	0.00230	0.00095	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00077	0.00076	0.000010	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0522	0.0534	2.17%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.275	0.279	1.38%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00280	0.00272	2.87%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0045	0.0044	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.42	4.59	3.72%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0336	0.0336	0.00907%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000472	0.000468	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00313	0.00274	0.00039	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	2.43	2.46	1.02%	20%	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	14.9	15.3	2.75%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00649	0.00673	3.62%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000832	0.000865	3.89%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	3.32	3.32	0.0373%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000028	0.000028	0.00000004	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	167	175	4.95%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0228	0.0236	3.44%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	37.0	37.0	0.109%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00150	0.00151	0.688%	20%	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0276	0.0265	4.00%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000022	0.000021	0.000001	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.167	0.168	0.456%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00020	<0.00020	0.000006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1399029)											
WP2407152-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1394150)											
WP2406895-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0055	0.0051	0.0004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00017	0.00017	0.000003	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00731	0.00748	2.26%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	3.02	3.01	0.387%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00042	0.00039	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.137	0.140	2.19%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0013	0.0012	0.00004	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.867	0.859	0.919%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0150	0.0146	2.59%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.15	1.14	1.24%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00113	0.00128	0.00015	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000060	0.000058	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.95	3.98	0.726%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.30	1.28	1.37%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0149	0.0147	1.70%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1394150) - continued											
WP2406895-003	Anonymous	Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000014	0.000014	0.0000005	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0018	0.0016	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1394151)											
WP2406895-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1399030)											
WP2407152-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1392399)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1392400)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1394194)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1394195)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1397400)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1392257)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1392258)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1392259)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1392260)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1394222)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1394227)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1397409)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1397410)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1397411)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1392189)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1394147)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1394147) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1394147) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1394148)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	# 0.00036	B
Total Metals (QCLot: 1394149)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1399029)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1394150)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1394150) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1394151)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1394152)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1399030)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1392398)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1392399)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	105	90.0	110	----
Physical Tests (QCLot: 1392400)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1394194)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.0	85.0	115	----
Physical Tests (QCLot: 1394195)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	91.8	85.0	115	----
Physical Tests (QCLot: 1397400)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.9	85.0	115	----
Anions and Nutrients (QCLot: 1392257)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	97.6	90.0	110	----
Anions and Nutrients (QCLot: 1392258)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1392259)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.1	90.0	110	----
Anions and Nutrients (QCLot: 1392260)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1394222)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1394227)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.0	80.0	120	----
Cyanides (QCLot: 1397409)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.6	80.0	120	----
Cyanides (QCLot: 1397410)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.6	80.0	120	----
Cyanides (QCLot: 1397411)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1392189)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.0	80.0	120	----
Total Metals (QCLot: 1394147)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.9	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	94.7	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	97.9	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	107	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	95.0	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	91.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1394147) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.9	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	106	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.8	80.0	120	----
Total Metals (QCLot: 1394148)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Total Metals (QCLot: 1394149)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Total Metals (QCLot: 1399029)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1394150)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	107	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	111	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	107	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.9	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.4	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	103	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.7	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	114	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1394150) - continued									
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	96.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	99.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.5	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	97.6	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	114	80.0	120	----
Dissolved Metals (QCLot: 1394152)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1394222)										
WP2407826-001	CR-REF	Ammonia, total (as N)	7664-41-7	E298	0.101 mg/L	0.1 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1394227)										
WP2407730-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.233 mg/L	0.25 mg/L	93.1	70.0	130	----
Cyanides (QCLot: 1397409)										
WP2407152-002	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.196 mg/L	0.25 mg/L	78.5	75.0	125	----
Cyanides (QCLot: 1397410)										
WP2407152-002	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.118 mg/L	0.125 mg/L	94.5	75.0	125	----
Cyanides (QCLot: 1397411)										
WP2407152-002	Anonymous	Cyanide, free	----	E339-L	0.117 mg/L	0.125 mg/L	94.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1392189)										
WP2407730-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1394147)										
WP2407706-001	Anonymous	Aluminum, total	7429-90-5	E420	0.215 mg/L	0.2 mg/L	108	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Barium, total	7440-39-3	E420	0.0196 mg/L	0.02 mg/L	98.3	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00901 mg/L	0.01 mg/L	90.1	70.0	130	----
		Boron, total	7440-42-8	E420	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00398 mg/L	0.004 mg/L	99.6	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00998 mg/L	0.01 mg/L	99.8	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, total	7439-92-1	E420	0.0182 mg/L	0.02 mg/L	90.8	70.0	130	----
		Lithium, total	7439-93-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0231 mg/L	0.02 mg/L	116	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0389 mg/L	0.04 mg/L	97.2	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0428 mg/L	0.04 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1394147) - continued										
WP2407706-001	Anonymous	Silicon, total	7440-21-3	E420	11.2 mg/L	10 mg/L	112	70.0	130	----
		Silver, total	7440-22-4	E420	0.00387 mg/L	0.004 mg/L	96.6	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00350 mg/L	0.004 mg/L	87.6	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Tin, total	7440-31-5	E420	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Zinc, total	7440-66-6	E420	0.388 mg/L	0.4 mg/L	97.1	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
Total Metals (QCLot: 1399029)										
WP2407730-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000969 mg/L	0 mg/L	96.9	70.0	130	----
Dissolved Metals (QCLot: 1394150)										
WP2406895-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.212 mg/L	0.2 mg/L	106	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0233 mg/L	0.02 mg/L	116	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00986 mg/L	0.01 mg/L	98.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	4.01 mg/L	4 mg/L	100	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.08 mg/L	2 mg/L	104	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	1.03 mg/L	1 mg/L	103	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.1 mg/L	10 mg/L	111	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.14 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0438 mg/L	0.04 mg/L	109	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00422 mg/L	0.004 mg/L	105	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1394150) - continued										
WP2406895-003	Anonymous	Sodium, dissolved	7440-23-5	E421	2.15 mg/L	2 mg/L	108	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.1 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0486 mg/L	0.04 mg/L	121	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00388 mg/L	0.004 mg/L	96.9	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.428 mg/L	0.4 mg/L	107	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0453 mg/L	0.04 mg/L	113	70.0	130	----
Dissolved Metals (QCLot: 1394151)										
WP2406895-003	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	11.1 mg/L	10 mg/L	111	70.0	130	----
Dissolved Metals (QCLot: 1399030)										
WP2407730-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% r
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 2
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush holidays and for
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Requ
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Analysi
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (u
	CR-REF	3-Apr-24	11:45	Water	10	X			7.05	0	133
	CR-FDP	3-Apr-24	13:20	Water	10	X			7.45	0.7	102

SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	EM	April 4 2024	Time: 8:30	Received by:	Date: APR 05 2024	Time: 910	Received by:	Time:

9.4°C

Environmental Division
Winnipeg
Work Order Reference
WP2407826

Telephone : +1 204 255 9720

Sample Intake						
Client:	Enfos					
Cheque Enclosed with CoC		Yes		No		
Priority/Emergency Required (circle one)		Yes		No		
Time Sensitive Hold Time (circle one)		Yes		No		
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White	4x500, 2x125	Yellow/Black	4x40			
Purple/White	4x100	Light blue/White				
Warm red/White	4x125	Orange/Black				
Dark Green/White	2x60	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered		✓
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2408018**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Apr-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 09-Apr-2024
C-O-C number	: ----	Issue Date	: 16-Apr-2024 15:22
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
						WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.95	4.85	6.16	6.11	----
Temperature, field	----	EF001/WP	0.10	°C		0.80	0.60	<0.10	0.40	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.8	33.4	2.0	7.9	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		61.5	<1.0	57.7	17.0	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		61.5	1.0	57.7	17.0	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		124	67.2	119	60.3	Not Detected
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		63.9	31.4	66.5	31.8	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		65.0	30.6	65.4	31.4	<0.50
pH	----	E108/WP	0.10	pH units		7.40	4.81	7.42	6.32	5.15
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		93.7	215 RRV	83.3	101	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		9.2	16.4	10.8	16.1	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0251	0.561	0.0506	0.0158	<0.0050
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.66	2.46	1.46	0.98	Not Detected
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0986	0.0314	0.131	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.103	0.0314	0.135	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0047	<0.0010	0.0041	0.0030	0.0014
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0375	0.0887	0.0411	0.0774	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.98	0.87	1.14	2.73	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0013	<0.0010	0.0012	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0017	<0.0010	0.0013	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
						WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0011	<0.0010	0.0011	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		19.1	124	21.6	47.1	0.53
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.306	1.58	0.460	0.411	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00034	<0.00010	0.00018	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00246	0.0157	0.00239	0.00575	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0155	0.0172	0.0210	0.00876	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000051	0.000021	0.000021	Not Detected
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	Not Detected
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000057	0.0000374	0.0000105	0.0000109	Not Detected
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		17.4	8.12	17.4	8.24	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000038	0.000077	0.000048	0.000016	Not Detected
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00071	0.00214	0.00105	0.00088	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00071	0.00214	0.00105	0.00088	Not Detected
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00037	0.00126	0.00040	0.00075	Not Detected
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00123	0.00137	0.00157	0.00088	Not Detected
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.987	4.16	1.10	1.22	Not Detected
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000184	0.000832	0.000246	0.000178	Not Detected
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0024	0.0028	0.0024	0.0013	Not Detected
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		5.24	2.50	5.32	2.64	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.139	0.0533	0.110	0.122	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000280	0.000178	0.000286	0.000088	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00088	0.00247	0.00112	0.00104	Not Detected
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.037	0.077	0.038	0.070	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.077	<0.050	0.070	Not Detected
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.44	0.344	1.56	0.681	Not Detected
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00290	0.00176	0.00325	0.00200	Not Detected

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
						WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000139	0.000418	0.000118	0.000197	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		4.36	5.32	4.52	3.43	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000024	<0.000010	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.39	2.43	3.07	1.95	Not Detected
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0375	0.0339	0.0378	0.0218	Not Detected
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.54	1.11	0.63	0.78	Not Detected
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	<0.00020	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000016	<0.000010	<0.000010	Not Detected
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00024	0.00011	0.00013	Not Detected
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0149	0.0307	0.0215	0.00704	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00027	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000242	0.000177	0.000271	0.000075	Not Detected
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00113	0.00180	0.00142	0.00080	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0154	0.0071	0.0062	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00027	0.00049	0.00042	0.00042	Not Detected
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0276	1.49	0.0443	0.346	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00010	0.00032	<0.00010	0.00015	Not Detected
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00188	0.0154	0.00185	0.00532	Not Detected
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0131	0.0159	0.0174	0.00835	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000039	0.000043	<0.000020	0.000055	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	Not Detected
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	0.0000245	0.0000083	0.0000118	0.0000090
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		17.8	8.41	18.1	8.60	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	0.000046	<0.000010	<0.000010	Not Detected
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00025	0.00196	0.00025	0.00074	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00196	<0.00050	0.00074	Not Detected
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00023	0.00122	0.00024	0.00070	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
						WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00082	0.00106	0.00095	0.00066	Not Detected
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.439	3.75	0.422	1.05	Not Detected
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000072	0.000660	0.000111	0.000145	Not Detected
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0026	0.0039	0.0030	0.0021	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.72	2.53	5.17	2.51	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.130	0.0528	0.0963	0.116	Not Detected
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000359	0.000137	0.000323	0.000098	Not Detected
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00058	0.00248	0.00072	0.00096	Not Detected
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.067	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	0.067	<0.050	Not Detected	Not Detected
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.34	0.396	1.45	0.629	Not Detected
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00222	0.00148	0.00217	0.00184	Not Detected
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000140	0.000318	0.000115	0.000153	Not Detected
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.46	4.44	3.56	3.06	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.19	2.73	3.05	2.00	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0368	0.0357	0.0388	0.0223	Not Detected
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.87	0.62	0.58	Not Detected
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	0.000026	<0.000010	0.000016	Not Detected
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00033	<0.00010	0.00013	Not Detected
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	0.00010	<0.00010	<0.00010	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00099	0.0237	0.00185	0.00387	Not Detected
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00022	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000208	0.000158	0.000253	0.000075	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00157	<0.00050	0.00056	Not Detected
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0014	0.0157	0.0040	0.0044	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	0.00084	<0.00030	0.00049	Not Detected
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-DUP 01	SW-11	SW-TRAVEL BLANK	----	----
				Client sampling date / time	04-Apr-2024 13:40	04-Apr-2024 13:40	04-Apr-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2408018-006	WP2408018-007	WP2408018-008	--------	--------
					Result	Result	Result	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.42	6.42	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	<0.10	<0.10	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	7.8	8.3	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	167	167	<1.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	167	167	<1.0	----	----
Conductivity	----	E100/WP	1.0	µS/cm	782	779	Not Detected	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	201	224	<0.50	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	231	229	<0.50	----	----
pH	----	E108/WP	0.10	pH units	7.10	7.12	5.33	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	600	542	<3.0	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	26.5	22.3	<1.0	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.144	0.151	0.0343	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	119	121	Not Detected	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0021	0.0029	0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0876	0.0987	<0.0020	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	69.7	70.4	<0.30	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0010	0.0011	<0.0010	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-DUP 01	SW-11	SW-TRAVEL BLANK	----	----
					Client sampling date / time	04-Apr-2024 13:40	04-Apr-2024 13:40	04-Apr-2024 00:00	----	----
						WP2408018-006	WP2408018-007	WP2408018-008	--------	--------
						Result	Result	Result	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		52.5	65.3	<0.50	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		1.59	1.55	<0.0030	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00312	0.00313	<0.00010	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0726	0.0715	Not Detected	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000033	0.000036	Not Detected	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.025	0.024	Not Detected	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.00106	0.00108	Not Detected	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		54.3	54.4	Not Detected	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000087	0.000083	Not Detected	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00318	0.00320	<0.00010	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00318	0.00320	Not Detected	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00332	0.00319	Not Detected	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.0287	0.0278	Not Detected	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		4.05	4.08	Not Detected	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.00156	0.00160	<0.000050	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0086	0.0085	Not Detected	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		23.2	22.6	<0.0050	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.539	0.524	Not Detected	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000416	0.0000418	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000756	0.000673	<0.000050	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00422	0.00405	Not Detected	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.152	0.146	<0.030	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.152	0.146	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		5.86	5.75	Not Detected	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00404	0.00385	Not Detected	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000111	0.000141	<0.000050	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		9.60	9.29	<0.10	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-DUP 01	SW-11	SW-TRAVEL BLANK	----	----
					Client sampling date / time	04-Apr-2024 13:40	04-Apr-2024 13:40	04-Apr-2024 00:00	----	----
						WP2408018-006	WP2408018-007	WP2408018-008	--------	--------
						Result	Result	Result	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000469	0.000466	Not Detected	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		86.2	83.2	Not Detected	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.142	0.136	Not Detected	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		26.9	26.6	<0.50	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000018	0.000021	Not Detected	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00018	0.00020	Not Detected	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0530	0.0538	Not Detected	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00146	0.00149	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000324	0.000328	Not Detected	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00251	0.00252	<0.00050	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0243	0.0241	<0.0030	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00062	0.00058	Not Detected	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0829	0.230	<0.0010	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00201	0.00237	<0.00010	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0472	0.0564	Not Detected	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	0.000023	<0.000020	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	<0.000050	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.025	0.025	Not Detected	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000782	0.000219	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		47.8	53.3	<0.050	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00042	0.00095	<0.00010	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00095	Not Detected	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00256	0.00282	Not Detected	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00215	0.00977	Not Detected	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.958	2.38	<0.010	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-DUP 01	SW-11	SW-TRAVEL BLANK	----	----
					Client sampling date / time	04-Apr-2024 13:40	04-Apr-2024 13:40	04-Apr-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2408018-006	WP2408018-007	WP2408018-008	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000213	0.000719	Not Detected	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0095	0.0098	<0.0010	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		19.9	22.0	<0.0050	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.410	0.472	<0.00010	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000195	0.0000158	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000423	0.000514	Not Detected	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00298	0.00313	Not Detected	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.049	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	Not Detected	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		5.19	5.14	Not Detected	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00237	0.00239	Not Detected	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000068	0.000084	Not Detected	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.67	7.08	Not Detected	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.000012	0.000086	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		82.1	82.6	0.053	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.134	0.141	Not Detected	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		24.0	23.6	Not Detected	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00013	Not Detected	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	<0.00010	Not Detected	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00259	0.00750	Not Detected	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00040	0.00070	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000206	0.000221	Not Detected	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00052	0.00088	Not Detected	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0072	0.0119	Not Detected	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00040	0.00054	Not Detected	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2408018**	Page	: 1 of 32
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Apr-2024 09:00
PO	: PPR-022-3	Issue Date	: 16-Apr-2024 15:22
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP 01	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELD BLANK	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP 01	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD BLANK	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP 01	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD BLANK	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP 01	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD BLANK	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-01	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-04	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-11	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-DUP 01	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-FIELD BLANK	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TR	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP 01	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-FIELD BLANK	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP 01	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD BLANK	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP 01	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD BLANK	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP 01	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD BLANK	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP 01	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-FIELD BLANK	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP 01	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-FIELD BLANK	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TRAVEL BLANK	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-01	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-04	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-08	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-11	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-DUP 01	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-FIELD BLANK	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TR	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TRAVEL BLANK	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-01	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-04	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP 01	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-FIELD BLANK	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-01	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-04	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-11	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-DUP 01	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-TR	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-04	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-11	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP 01	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-FIELD BLANK	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TRAVEL BLANK	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-01	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-04	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-08	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-11	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-DUP 01	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-FIELD BLANK	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TRAVEL BLANK	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-11	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-DUP 01	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-FIELD BLANK	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TRAVEL BLANK	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP 01	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELD BLANK	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TRAVEL BLANK	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP 01	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELD BLANK	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TRAVEL BLANK	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP 01	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-FIELD BLANK	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	04-Apr-2024	----	----	----		11-Apr-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP 01	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELD BLANK	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TRAVEL BLANK	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP 01	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD BLANK	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP 01	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELD BLANK	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TRAVEL BLANK	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP 01	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD BLANK	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP 01	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELD BLANK	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TR	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TRAVEL BLANK	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1399260	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1395951	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1397020	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1396130	0	8	0.0	5.0	✗
Conductivity in Water	E100	1395952	2	14	14.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1400446	0	8	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1400445	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1396120	2	18	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1400447	0	8	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1399187	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1396126	0	9	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1396127	0	9	0.0	5.0	✗
pH by Meter	E108	1395950	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1396125	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1396384	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1397070	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1399188	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1397072	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1396314	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1397071	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1396388	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1399186	1	15	6.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1399260	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1395951	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1397020	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1396130	1	8	12.5	5.0	✓
Conductivity in Water	E100	1395952	2	14	14.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1400446	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1400445	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1396120	2	18	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1400447	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1399187	1	10	10.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1396126	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1396127	1	9	11.1	5.0	✓
pH by Meter	E108	1395950	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1396125	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1396384	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1397070	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1399188	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1397072	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1396314	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1397071	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1396388	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1399186	1	15	6.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1399260	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1395951	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1397020	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1396130	1	8	12.5	5.0	✓
Conductivity in Water	E100	1395952	2	14	14.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1400446	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1400445	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1396120	2	18	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1400447	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1399187	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1396126	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1396127	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1396125	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1396384	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1397070	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1399188	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1397072	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1396314	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1397071	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1396388	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1399186	1	15	6.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1397020	2	38	5.2	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1396130	0	8	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1400446	0	8	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1400445	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1396120	1	18	5.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1400447	0	8	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1399187	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1396126	0	9	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1396127	0	9	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1396125	1	10	10.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1397070	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1399188	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1397072	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1396314	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1397071	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1399186	1	15	6.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2408018**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Apr-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 09-Apr-2024
C-O-C number	: ----	Issue Date	: 16-Apr-2024 15:22
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1395950)											
WP2407949-002	Anonymous	pH	----	E108	0.10	pH units	6.38	6.42	0.625%	4%	----
Physical Tests (QC Lot: 1395951)											
WP2407949-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	25.9	23.8	8.45%	20%	----
Physical Tests (QC Lot: 1395952)											
WP2407949-002	Anonymous	Conductivity	----	E100	1.0	µS/cm	90.2	89.1	1.23%	10%	----
Physical Tests (QC Lot: 1396055)											
WP2408018-006	SW-DUP 01	Conductivity	----	E100	1.0	µS/cm	782	780	0.256%	10%	----
Physical Tests (QC Lot: 1396056)											
WP2408018-006	SW-DUP 01	pH	----	E108	0.10	pH units	7.10	7.15	0.702%	4%	----
Physical Tests (QC Lot: 1396057)											
WP2408018-006	SW-DUP 01	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	167	167	0.179%	20%	----
Physical Tests (QC Lot: 1396384)											
WP2407152-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	2120	2160	2.03%	20%	----
Physical Tests (QC Lot: 1396388)											
WP2407152-002	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	2.7	2.5	0.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1399260)											
WP2408018-001	SW-04	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.8	3.8	1.0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1396125)											
WP2408014-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	9.60	9.79	1.97%	20%	----
Anions and Nutrients (QC Lot: 1396314)											
WP2407949-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0109	0.0107	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1397020)											
WP2408012-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0247	0.0243	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1400403)											
WP2408142-006	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0651	0.0647	0.647%	20%	----
Cyanides (QC Lot: 1399186)											
WP2407934-005	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0100	mg/L	0.0386	0.0383	0.0004	Diff <2x LOR	----
Cyanides (QC Lot: 1399187)											
WP2407934-005	Anonymous	Cyanide, free	----	E339-L	0.0100	mg/L	0.0362	0.0371	0.0008	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1396120)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1396120) - continued											
WP2408018-001	SW-04	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	19.1	19.6	2.28%	20%	----
Organic / Inorganic Carbon (QC Lot: 1397273)											
WP2408118-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	12.4	12.6	1.38%	20%	----
Total Metals (QC Lot: 1397070)											
WP2408018-001	SW-04	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00071	0.00083	0.00012	Diff <2x LOR	----
Total Metals (QC Lot: 1397071)											
WP2408018-001	SW-04	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.037	0.050	0.013	Diff <2x LOR	----
Total Metals (QC Lot: 1397072)											
WP2408018-001	SW-04	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.306	0.328	6.88%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00246	0.00252	2.72%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0155	0.0156	0.203%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000057	0.0000070	0.0000013	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	17.4	17.3	0.308%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000038	0.000041	0.000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00071	0.00083	0.00012	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00037	0.00037	0.000002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00123	0.00128	0.00005	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.987	1.00	1.85%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000184	0.000188	0.000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0024	0.0023	0.00006	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	5.24	5.33	1.74%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.139	0.140	0.664%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000280	0.000259	0.000022	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00088	0.00094	0.00006	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	0.050	0.00005	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.44	1.44	0.0169%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00290	0.00287	1.11%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000139	0.000139	0.0000007	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.36	4.45	2.00%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1397072) - continued											
WP2408018-001	SW-04	Sodium, total	7440-23-5	E420	0.050	mg/L	2.39	2.32	3.14%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0375	0.0361	3.85%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	0.54	0.62	0.07	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	0.00017	0.00007	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0149	0.0158	5.58%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000242	0.000241	0.696%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00113	0.00116	0.00004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00027	0.00028	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1399029)											
WP2407152-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1399030)											
WP2407152-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1400445)											
WP2408014-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0147	0.0147	0.279%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00013	0.00012	0.000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00294	0.00282	3.92%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0214	0.0217	1.37%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000032	0.000027	0.000005	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.027	0.027	0.00006	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000440	0.0000374	0.0000066	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	21.6	22.1	2.32%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00010	0.00010	0.000001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00221	0.00217	1.64%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.048	0.048	0.0006	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000063	0.000062	0.0000004	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0124	0.0123	1.03%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1400445) - continued											
WP2408014-001	Anonymous	Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	13.2	13.3	0.857%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00141	0.00126	11.4%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000908	0.000912	0.398%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00227	0.00228	0.000008	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.505	0.467	0.038	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	7.93	7.62	3.97%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00130	0.00136	0.00006	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000151	0.000176	0.000025	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.02	4.09	1.78%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.84	4.42	8.91%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0694	0.0705	1.64%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	3.46	3.47	0.01	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000010	<0.000010	0.0000002	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00378	0.00376	0.634%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00162	0.00156	3.73%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00371	0.00364	0.00008	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0016	0.0016	0.00008	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00048	0.00052	0.00004	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1395951)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1395952)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1396055)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1396057)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1396384)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1396388)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1399260)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1396125)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1396126)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1396127)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1396130)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1396314)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1397020)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1400403)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1399186)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1399187)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1399188)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1399188) - continued						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1396120)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1397273)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1397070)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1397071)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1397072)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1397072) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1399029)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1399030)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1400445)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1400445) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1400446)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1400447)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1395950)									
pH	----	E108	----	pH units	7 pH units	99.8	98.0	102	----
Physical Tests (QCLot: 1395951)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1395952)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1396055)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.4	90.0	110	----
Physical Tests (QCLot: 1396056)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1396057)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1396384)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.1	85.0	115	----
Physical Tests (QCLot: 1396388)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	105	85.0	115	----
Physical Tests (QCLot: 1399260)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.1	85.0	115	----
Anions and Nutrients (QCLot: 1396125)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1396126)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1396127)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.4	90.0	110	----
Anions and Nutrients (QCLot: 1396130)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1396314)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.1	80.0	120	----
Anions and Nutrients (QCLot: 1397020)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.0	85.0	115	----
Anions and Nutrients (QCLot: 1400403)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Cyanides (QCLot: 1399186)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	101	80.0	120	----
Cyanides (QCLot: 1399187)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1399188)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1396120)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	107	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1397273)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Metals (QCLot: 1397070)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	100.0	80.0	120	----
Total Metals (QCLot: 1397071)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Total Metals (QCLot: 1397072)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	97.5	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.2	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	99.6	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	100.0	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	94.4	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.6	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1397072) - continued									
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.0	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	91.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.6	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	98.3	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.2	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.1	80.0	120	----
Total Metals (QCLot: 1399029)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1400445)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	108	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.8	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.7	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1400445) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.9	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	107	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.4	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	99.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	99.7	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.2	80.0	120	----
Dissolved Metals (QCLot: 1400446)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1396125)										
WP2408014-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1396314)										
WP2407949-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.230 mg/L	0.25 mg/L	92.0	70.0	130	----
Anions and Nutrients (QCLot: 1397020)										
WP2408012-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1400403)										
WP2408142-006	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0990 mg/L	0.1 mg/L	99.0	75.0	125	----
Cyanides (QCLot: 1399186)										
WP2407934-005	Anonymous	Cyanide, weak acid dissociable	----	E336-L	1.12 mg/L	1.25 mg/L	89.4	75.0	125	----
Cyanides (QCLot: 1399187)										
WP2407934-005	Anonymous	Cyanide, free	----	E339-L	1.11 mg/L	1.25 mg/L	88.7	75.0	125	----
Cyanides (QCLot: 1399188)										
WP2407934-005	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	----	----		75.0	125	----
Organic / Inorganic Carbon (QCLot: 1396120)										
WP2408018-002	SW-TR	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1397070)										
WP2408018-001	SW-04	Chromium, total	7440-47-3	E420.Cr-L	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1397071)										
WP2408018-001	SW-04	Phosphorus, total	7723-14-0	E420.P-L	10.4 mg/L	10 mg/L	104	70.0	130	----
Total Metals (QCLot: 1397072)										
WP2408018-001	SW-04	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, total	7440-39-3	E420	0.0186 mg/L	0.02 mg/L	92.8	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Boron, total	7440-42-8	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00975 mg/L	0.01 mg/L	97.5	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, total	7440-50-8	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1397072) - continued										
WP2408018-001	SW-04	Iron, total	7439-89-6	E420	2.10 mg/L	2 mg/L	105	70.0	130	----
		Lead, total	7439-92-1	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0945 mg/L	0.1 mg/L	94.5	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.06 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, total	7440-21-3	E420	9.99 mg/L	10 mg/L	99.9	70.0	130	----
		Silver, total	7440-22-4	E420	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.5 mg/L	20 mg/L	108	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Tin, total	7440-31-5	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0474 mg/L	0.04 mg/L	119	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00398 mg/L	0.004 mg/L	99.4	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.404 mg/L	0.4 mg/L	101	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
Total Metals (QCLot: 1399029)										
WP2407730-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000969 mg/L	0 mg/L	96.9	70.0	130	----
Dissolved Metals (QCLot: 1399030)										
WP2407730-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1400445)										
WP2408014-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00916 mg/L	0.01 mg/L	91.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1400445) - continued										
WP2408014-001	Anonymous	Copper, dissolved	7440-50-8	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.00 mg/L	2 mg/L	99.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.8 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0469 mg/L	0.04 mg/L	117	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0442 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00380 mg/L	0.004 mg/L	94.9	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.402 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0448 mg/L	0.04 mg/L	112	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F -
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F -
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F -
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F -
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to holidays and
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time R
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Anal
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP

Environmental Division Winnipeg
Work Order Reference
WP2408018

Telephone : +1 204 255 9720

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-04	4-Apr-24	14:15	water	9	X			6.95	0.8	71.3
	SW-TR	4-Apr-24	11:00	water	9	X			4.85	0.6	40.3
	SW-08	4-Apr-24	12:45	water	9	X			6.16	0	69.4
	SW-01	4-Apr-24	9:50	water	9	X			6.11	0.4	32
	SW-Field Blank	4-Apr-24	13:40	water	9	X			N/A	N/A	N/A
	SW-Dup 01	4-Apr-24	13:40	water	9	X			6.42	0	435
	SW-11	4-Apr-24	13:40	water	9	X			6.42	0	435
	SW-Travel Blank	4-Apr-24	N/A	water	9	X			N/A	N/A	N/A

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: Jacob McFee		Time: 7:40	Received by:	Date: APR 09 2024	Time:	Received by:	Time: 12-10C

Sample & Bake Verification Form

Sample Intake					
Client:	Great Pacific				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	14x500, 7x125	Yellow/Black	14x40		
Purple/White	4x100	Light blue/White			
Warm red/White	4x125	Orange/Black			
Dark Green/White	7x60	Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following: Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2408018**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Apr-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 09-Apr-2024
C-O-C number	: ----	Issue Date	: 16-Apr-2024 15:22
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
						WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.95	4.85	6.16	6.11	----
Temperature, field	----	EF001/WP	0.10	°C		0.80	0.60	<0.10	0.40	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.8	33.4	2.0	7.9	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		61.5	<1.0	57.7	17.0	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		61.5	1.0	57.7	17.0	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		124	67.2	119	60.3	Not Detected
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		63.9	31.4	66.5	31.8	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		65.0	30.6	65.4	31.4	<0.50
pH	----	E108/WP	0.10	pH units		7.40	4.81	7.42	6.32	5.15
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		93.7	215 RRV	83.3	101	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		9.2	16.4	10.8	16.1	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0251	0.561	0.0506	0.0158	<0.0050
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.66	2.46	1.46	0.98	Not Detected
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0986	0.0314	0.131	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.103	0.0314	0.135	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0047	<0.0010	0.0041	0.0030	0.0014
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0375	0.0887	0.0411	0.0774	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.98	0.87	1.14	2.73	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0013	<0.0010	0.0012	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0017	<0.0010	0.0013	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
						WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0011	<0.0010	0.0011	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		19.1	124	21.6	47.1	0.53
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.306	1.58	0.460	0.411	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00034	<0.00010	0.00018	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00246	0.0157	0.00239	0.00575	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0155	0.0172	0.0210	0.00876	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000051	0.000021	0.000021	Not Detected
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	Not Detected
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000057	0.0000374	0.0000105	0.0000109	Not Detected
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		17.4	8.12	17.4	8.24	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000038	0.000077	0.000048	0.000016	Not Detected
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00071	0.00214	0.00105	0.00088	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00071	0.00214	0.00105	0.00088	Not Detected
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00037	0.00126	0.00040	0.00075	Not Detected
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00123	0.00137	0.00157	0.00088	Not Detected
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.987	4.16	1.10	1.22	Not Detected
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000184	0.000832	0.000246	0.000178	Not Detected
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0024	0.0028	0.0024	0.0013	Not Detected
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		5.24	2.50	5.32	2.64	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.139	0.0533	0.110	0.122	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000280	0.000178	0.000286	0.000088	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00088	0.00247	0.00112	0.00104	Not Detected
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.037	0.077	0.038	0.070	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.077	<0.050	0.070	Not Detected
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.44	0.344	1.56	0.681	Not Detected
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00290	0.00176	0.00325	0.00200	Not Detected

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
						WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000139	0.000418	0.000118	0.000197	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		4.36	5.32	4.52	3.43	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000024	<0.000010	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.39	2.43	3.07	1.95	Not Detected
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0375	0.0339	0.0378	0.0218	Not Detected
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.54	1.11	0.63	0.78	Not Detected
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	<0.00020	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000016	<0.000010	<0.000010	Not Detected
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00024	0.00011	0.00013	Not Detected
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0149	0.0307	0.0215	0.00704	<0.00030
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00027	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000242	0.000177	0.000271	0.000075	Not Detected
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00113	0.00180	0.00142	0.00080	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0154	0.0071	0.0062	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00027	0.00049	0.00042	0.00042	Not Detected
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0276	1.49	0.0443	0.346	<0.0010
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00010	0.00032	<0.00010	0.00015	Not Detected
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00188	0.0154	0.00185	0.00532	Not Detected
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0131	0.0159	0.0174	0.00835	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000039	0.000043	<0.000020	0.000055	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	Not Detected
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	0.0000245	0.0000083	0.0000118	0.0000090
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		17.8	8.41	18.1	8.60	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	0.000046	<0.000010	<0.000010	Not Detected
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00025	0.00196	0.00025	0.00074	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00196	<0.00050	0.00074	Not Detected
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00023	0.00122	0.00024	0.00070	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
						WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00082	0.00106	0.00095	0.00066	Not Detected
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.439	3.75	0.422	1.05	Not Detected
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000072	0.000660	0.000111	0.000145	Not Detected
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0026	0.0039	0.0030	0.0021	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.72	2.53	5.17	2.51	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.130	0.0528	0.0963	0.116	Not Detected
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000359	0.000137	0.000323	0.000098	Not Detected
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00058	0.00248	0.00072	0.00096	Not Detected
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.067	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	0.067	<0.050	Not Detected	Not Detected
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.34	0.396	1.45	0.629	Not Detected
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00222	0.00148	0.00217	0.00184	Not Detected
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000140	0.000318	0.000115	0.000153	Not Detected
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.46	4.44	3.56	3.06	<0.050
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.19	2.73	3.05	2.00	<0.050
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0368	0.0357	0.0388	0.0223	Not Detected
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.87	0.62	0.58	Not Detected
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	0.000026	<0.000010	0.000016	Not Detected
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00033	<0.00010	0.00013	Not Detected
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	0.00010	<0.00010	<0.00010	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00099	0.0237	0.00185	0.00387	Not Detected
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00022	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000208	0.000158	0.000253	0.000075	<0.000010
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00157	<0.00050	0.00056	Not Detected
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0014	0.0157	0.0040	0.0044	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	0.00084	<0.00030	0.00049	Not Detected
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-TR	SW-08	SW-01	SW-FIELD BLANK
					Client sampling date / time	04-Apr-2024 14:15	04-Apr-2024 11:00	04-Apr-2024 12:45	04-Apr-2024 09:50	04-Apr-2024 13:40
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2408018-001	WP2408018-002	WP2408018-003	WP2408018-004	WP2408018-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-DUP 01	SW-11	SW-TRAVEL BLANK	----	----
				Client sampling date / time	04-Apr-2024 13:40	04-Apr-2024 13:40	04-Apr-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2408018-006	WP2408018-007	WP2408018-008	--------	--------
					Result	Result	Result	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.42	6.42	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	<0.10	<0.10	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	7.8	8.3	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	167	167	<1.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	167	167	<1.0	----	----
Conductivity	----	E100/WP	1.0	µS/cm	782	779	Not Detected	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	201	224	<0.50	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	231	229	<0.50	----	----
pH	----	E108/WP	0.10	pH units	7.10	7.12	5.33	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	600	542	<3.0	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	26.5	22.3	<1.0	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.144	0.151	0.0343	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	119	121	Not Detected	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0021	0.0029	0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0876	0.0987	<0.0020	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	69.7	70.4	<0.30	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0010	0.0011	<0.0010	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-DUP 01	SW-11	SW-TRAVEL BLANK	----	----
					Client sampling date / time	04-Apr-2024 13:40	04-Apr-2024 13:40	04-Apr-2024 00:00	----	----
						WP2408018-006	WP2408018-007	WP2408018-008	--------	--------
						Result	Result	Result	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		52.5	65.3	<0.50	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		1.59	1.55	<0.0030	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00312	0.00313	<0.00010	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0726	0.0715	Not Detected	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000033	0.000036	Not Detected	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.025	0.024	Not Detected	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.00106	0.00108	Not Detected	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		54.3	54.4	Not Detected	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000087	0.000083	Not Detected	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00318	0.00320	<0.00010	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00318	0.00320	Not Detected	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00332	0.00319	Not Detected	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.0287	0.0278	Not Detected	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		4.05	4.08	Not Detected	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.00156	0.00160	<0.000050	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0086	0.0085	Not Detected	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		23.2	22.6	<0.0050	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.539	0.524	Not Detected	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000416	0.0000418	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000756	0.000673	<0.000050	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00422	0.00405	Not Detected	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.152	0.146	<0.030	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.152	0.146	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		5.86	5.75	Not Detected	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00404	0.00385	Not Detected	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000111	0.000141	<0.000050	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		9.60	9.29	<0.10	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-DUP 01	SW-11	SW-TRAVEL BLANK	----	----
					Client sampling date / time	04-Apr-2024 13:40	04-Apr-2024 13:40	04-Apr-2024 00:00	----	----
						WP2408018-006	WP2408018-007	WP2408018-008	--------	--------
						Result	Result	Result	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000469	0.000466	Not Detected	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		86.2	83.2	Not Detected	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.142	0.136	Not Detected	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		26.9	26.6	<0.50	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000018	0.000021	Not Detected	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00018	0.00020	Not Detected	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0530	0.0538	Not Detected	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00146	0.00149	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000324	0.000328	Not Detected	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00251	0.00252	<0.00050	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0243	0.0241	<0.0030	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00062	0.00058	Not Detected	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0829	0.230	<0.0010	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00201	0.00237	<0.00010	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0472	0.0564	Not Detected	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	0.000023	<0.000020	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	<0.000050	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.025	0.025	Not Detected	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000782	0.000219	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		47.8	53.3	<0.050	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00042	0.00095	<0.00010	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00095	Not Detected	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00256	0.00282	Not Detected	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00215	0.00977	Not Detected	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.958	2.38	<0.010	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-DUP 01	SW-11	SW-TRAVEL BLANK	----	----
					Client sampling date / time	04-Apr-2024 13:40	04-Apr-2024 13:40	04-Apr-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2408018-006	WP2408018-007	WP2408018-008	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000213	0.000719	Not Detected	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0095	0.0098	<0.0010	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		19.9	22.0	<0.0050	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.410	0.472	<0.00010	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000195	0.0000158	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000423	0.000514	Not Detected	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00298	0.00313	Not Detected	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	0.049	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	Not Detected	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		5.19	5.14	Not Detected	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00237	0.00239	Not Detected	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000068	0.000084	Not Detected	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.67	7.08	Not Detected	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.000012	0.000086	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		82.1	82.6	0.053	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.134	0.141	Not Detected	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		24.0	23.6	Not Detected	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00013	Not Detected	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	<0.00010	Not Detected	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00259	0.00750	Not Detected	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00040	0.00070	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000206	0.000221	Not Detected	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00052	0.00088	Not Detected	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0072	0.0119	Not Detected	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00040	0.00054	Not Detected	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2408018**	Page	: 1 of 32
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Apr-2024 09:00
PO	: PPR-022-3	Issue Date	: 16-Apr-2024 15:22
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP 01	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELD BLANK	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E298	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP 01	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD BLANK	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.Cl-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP 01	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD BLANK	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.NO3-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP 01	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD BLANK	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.NO2-L	04-Apr-2024	09-Apr-2024	7 days	5 days	✓	10-Apr-2024	7 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-01	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-04	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-11	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-DUP 01	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-FIELD BLANK	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TR	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TRAVEL BLANK	E235.SO4	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP 01	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-FIELD BLANK	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E372-U	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	10-Apr-2024	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP 01	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD BLANK	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E339-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP 01	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD BLANK	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E333-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP 01	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD BLANK	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVEL BLANK	E336-L	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP 01	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-FIELD BLANK	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.Cr-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP 01	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-FIELD BLANK	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TRAVEL BLANK	E509	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-01	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-04	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-08	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-11	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-DUP 01	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-FIELD BLANK	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TR	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-TRAVEL BLANK	E421	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-01	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-04	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP 01	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-FIELD BLANK	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.P-L	04-Apr-2024	12-Apr-2024	180 days	8 days	✓	12-Apr-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-01	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-04	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-11	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-DUP 01	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-TR	EF001	04-Apr-2024	----	----	----		09-Apr-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-04	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-11	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP 01	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-FIELD BLANK	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TRAVEL BLANK	E358-L	04-Apr-2024	09-Apr-2024	28 days	5 days	✓	09-Apr-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-01	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-04	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-08	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-11	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-DUP 01	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-FIELD BLANK	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TRAVEL BLANK	E283	04-Apr-2024	11-Apr-2024	14 days	7 days	✓	11-Apr-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-11	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-DUP 01	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-FIELD BLANK	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TRAVEL BLANK	E290	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP 01	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELD BLANK	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TRAVEL BLANK	E100	04-Apr-2024	10-Apr-2024	28 days	6 days	✓	10-Apr-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP 01	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELD BLANK	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TRAVEL BLANK	E108	04-Apr-2024	10-Apr-2024	14 days	6 days	✓	10-Apr-2024	14 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP 01	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-FIELD BLANK	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TRAVEL BLANK	E162-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	04-Apr-2024	----	----	----		11-Apr-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP 01	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELD BLANK	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TRAVEL BLANK	E160-L	04-Apr-2024	----	----	----		10-Apr-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP 01	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD BLANK	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420.Cr-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP 01	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELD BLANK	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TRAVEL BLANK	E508	04-Apr-2024	11-Apr-2024	28 days	7 days	✓	11-Apr-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP 01	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD BLANK	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP 01	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELD BLANK	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TR	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TRAVEL BLANK	E420.P-L	04-Apr-2024	10-Apr-2024	180 days	6 days	✓	10-Apr-2024	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1399260	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1395951	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1397020	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1396130	0	8	0.0	5.0	✗
Conductivity in Water	E100	1395952	2	14	14.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1400446	0	8	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1400445	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1396120	2	18	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1400447	0	8	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1399187	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1396126	0	9	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1396127	0	9	0.0	5.0	✗
pH by Meter	E108	1395950	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1396125	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1396384	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1397070	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1399188	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1397072	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1396314	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1397071	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1396388	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1399186	1	15	6.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1399260	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1395951	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1397020	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1396130	1	8	12.5	5.0	✓
Conductivity in Water	E100	1395952	2	14	14.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1400446	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1400445	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1396120	2	18	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1400447	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1399187	1	10	10.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1396126	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1396127	1	9	11.1	5.0	✓
pH by Meter	E108	1395950	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1396125	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1396384	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1397070	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1399188	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1397072	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1396314	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1397071	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1396388	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1399186	1	15	6.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1399260	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1395951	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1397020	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1396130	1	8	12.5	5.0	✓
Conductivity in Water	E100	1395952	2	14	14.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1400446	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1400445	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1396120	2	18	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1400447	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1399187	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1396126	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1396127	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1396125	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1396384	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1397070	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1399188	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1397072	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1396314	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1397071	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1396388	1	10	10.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1399186	1	15	6.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1397020	2	38	5.2	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1396130	0	8	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1400446	0	8	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1399030	1	13	7.6	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1400445	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1396120	1	18	5.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1400447	0	8	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1399187	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1396126	0	9	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1396127	0	9	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1396125	1	10	10.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1397070	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1399188	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1399029	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1397072	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1396314	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1397071	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1399186	1	15	6.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2408018**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Apr-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 09-Apr-2024
C-O-C number	: ----	Issue Date	: 16-Apr-2024 15:22
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1395950)											
WP2407949-002	Anonymous	pH	----	E108	0.10	pH units	6.38	6.42	0.625%	4%	----
Physical Tests (QC Lot: 1395951)											
WP2407949-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	25.9	23.8	8.45%	20%	----
Physical Tests (QC Lot: 1395952)											
WP2407949-002	Anonymous	Conductivity	----	E100	1.0	µS/cm	90.2	89.1	1.23%	10%	----
Physical Tests (QC Lot: 1396055)											
WP2408018-006	SW-DUP 01	Conductivity	----	E100	1.0	µS/cm	782	780	0.256%	10%	----
Physical Tests (QC Lot: 1396056)											
WP2408018-006	SW-DUP 01	pH	----	E108	0.10	pH units	7.10	7.15	0.702%	4%	----
Physical Tests (QC Lot: 1396057)											
WP2408018-006	SW-DUP 01	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	167	167	0.179%	20%	----
Physical Tests (QC Lot: 1396384)											
WP2407152-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	2120	2160	2.03%	20%	----
Physical Tests (QC Lot: 1396388)											
WP2407152-002	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	2.7	2.5	0.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1399260)											
WP2408018-001	SW-04	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.8	3.8	1.0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1396125)											
WP2408014-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	9.60	9.79	1.97%	20%	----
Anions and Nutrients (QC Lot: 1396314)											
WP2407949-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0109	0.0107	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1397020)											
WP2408012-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0247	0.0243	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1400403)											
WP2408142-006	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0651	0.0647	0.647%	20%	----
Cyanides (QC Lot: 1399186)											
WP2407934-005	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0100	mg/L	0.0386	0.0383	0.0004	Diff <2x LOR	----
Cyanides (QC Lot: 1399187)											
WP2407934-005	Anonymous	Cyanide, free	----	E339-L	0.0100	mg/L	0.0362	0.0371	0.0008	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1396120)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1396120) - continued											
WP2408018-001	SW-04	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	19.1	19.6	2.28%	20%	----
Organic / Inorganic Carbon (QC Lot: 1397273)											
WP2408118-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	12.4	12.6	1.38%	20%	----
Total Metals (QC Lot: 1397070)											
WP2408018-001	SW-04	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00071	0.00083	0.00012	Diff <2x LOR	----
Total Metals (QC Lot: 1397071)											
WP2408018-001	SW-04	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.037	0.050	0.013	Diff <2x LOR	----
Total Metals (QC Lot: 1397072)											
WP2408018-001	SW-04	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.306	0.328	6.88%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00246	0.00252	2.72%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0155	0.0156	0.203%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000057	0.0000070	0.0000013	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	17.4	17.3	0.308%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000038	0.000041	0.000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00071	0.00083	0.00012	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00037	0.00037	0.000002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00123	0.00128	0.00005	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.987	1.00	1.85%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000184	0.000188	0.000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0024	0.0023	0.00006	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	5.24	5.33	1.74%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.139	0.140	0.664%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000280	0.000259	0.000022	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00088	0.00094	0.00006	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	0.050	0.00005	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.44	1.44	0.0169%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00290	0.00287	1.11%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000139	0.000139	0.0000007	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.36	4.45	2.00%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1397072) - continued											
WP2408018-001	SW-04	Sodium, total	7440-23-5	E420	0.050	mg/L	2.39	2.32	3.14%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0375	0.0361	3.85%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	0.54	0.62	0.07	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	0.00017	0.00007	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0149	0.0158	5.58%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000242	0.000241	0.696%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00113	0.00116	0.00004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00027	0.00028	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1399029)											
WP2407152-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1399030)											
WP2407152-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1400445)											
WP2408014-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0147	0.0147	0.279%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00013	0.00012	0.000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00294	0.00282	3.92%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0214	0.0217	1.37%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000032	0.000027	0.000005	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.027	0.027	0.00006	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000440	0.0000374	0.0000066	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	21.6	22.1	2.32%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00010	0.00010	0.000001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00221	0.00217	1.64%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.048	0.048	0.0006	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000063	0.000062	0.0000004	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0124	0.0123	1.03%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1400445) - continued											
WP2408014-001	Anonymous	Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	13.2	13.3	0.857%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00141	0.00126	11.4%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000908	0.000912	0.398%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00227	0.00228	0.000008	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.505	0.467	0.038	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	7.93	7.62	3.97%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00130	0.00136	0.00006	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000151	0.000176	0.000025	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.02	4.09	1.78%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.84	4.42	8.91%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0694	0.0705	1.64%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	3.46	3.47	0.01	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000010	<0.000010	0.0000002	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00378	0.00376	0.634%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00162	0.00156	3.73%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00371	0.00364	0.00008	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0016	0.0016	0.00008	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00048	0.00052	0.00004	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1395951)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1395952)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1396055)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1396057)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1396384)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1396388)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1399260)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1396125)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1396126)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1396127)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1396130)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1396314)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1397020)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1400403)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1399186)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1399187)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1399188)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1399188) - continued						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1396120)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1397273)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1397070)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1397071)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1397072)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1397072) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1399029)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1399030)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1400445)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1400445) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1400446)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1400447)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1395950)									
pH	----	E108	----	pH units	7 pH units	99.8	98.0	102	----
Physical Tests (QCLot: 1395951)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1395952)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1396055)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.4	90.0	110	----
Physical Tests (QCLot: 1396056)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1396057)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1396384)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.1	85.0	115	----
Physical Tests (QCLot: 1396388)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	105	85.0	115	----
Physical Tests (QCLot: 1399260)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.1	85.0	115	----
Anions and Nutrients (QCLot: 1396125)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1396126)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1396127)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.4	90.0	110	----
Anions and Nutrients (QCLot: 1396130)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1396314)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.1	80.0	120	----
Anions and Nutrients (QCLot: 1397020)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.0	85.0	115	----
Anions and Nutrients (QCLot: 1400403)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Cyanides (QCLot: 1399186)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	101	80.0	120	----
Cyanides (QCLot: 1399187)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1399188)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1396120)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	107	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1397273)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Metals (QCLot: 1397070)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	100.0	80.0	120	----
Total Metals (QCLot: 1397071)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Total Metals (QCLot: 1397072)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	97.5	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.2	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	99.6	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	100.0	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	94.4	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.6	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1397072) - continued									
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.0	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	91.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.6	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	98.3	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.2	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.1	80.0	120	----
Total Metals (QCLot: 1399029)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1400445)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	108	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.8	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.7	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1400445) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.9	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	107	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.4	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	99.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	97.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	99.7	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	103	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.2	80.0	120	----
Dissolved Metals (QCLot: 1400446)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1396125)										
WP2408014-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1396314)										
WP2407949-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.230 mg/L	0.25 mg/L	92.0	70.0	130	----
Anions and Nutrients (QCLot: 1397020)										
WP2408012-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1400403)										
WP2408142-006	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0990 mg/L	0.1 mg/L	99.0	75.0	125	----
Cyanides (QCLot: 1399186)										
WP2407934-005	Anonymous	Cyanide, weak acid dissociable	----	E336-L	1.12 mg/L	1.25 mg/L	89.4	75.0	125	----
Cyanides (QCLot: 1399187)										
WP2407934-005	Anonymous	Cyanide, free	----	E339-L	1.11 mg/L	1.25 mg/L	88.7	75.0	125	----
Cyanides (QCLot: 1399188)										
WP2407934-005	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	----	----		75.0	125	----
Organic / Inorganic Carbon (QCLot: 1396120)										
WP2408018-002	SW-TR	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1397070)										
WP2408018-001	SW-04	Chromium, total	7440-47-3	E420.Cr-L	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1397071)										
WP2408018-001	SW-04	Phosphorus, total	7723-14-0	E420.P-L	10.4 mg/L	10 mg/L	104	70.0	130	----
Total Metals (QCLot: 1397072)										
WP2408018-001	SW-04	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, total	7440-39-3	E420	0.0186 mg/L	0.02 mg/L	92.8	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Boron, total	7440-42-8	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00975 mg/L	0.01 mg/L	97.5	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, total	7440-50-8	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1397072) - continued										
WP2408018-001	SW-04	Iron, total	7439-89-6	E420	2.10 mg/L	2 mg/L	105	70.0	130	----
		Lead, total	7439-92-1	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0945 mg/L	0.1 mg/L	94.5	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.06 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, total	7440-21-3	E420	9.99 mg/L	10 mg/L	99.9	70.0	130	----
		Silver, total	7440-22-4	E420	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.5 mg/L	20 mg/L	108	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Tin, total	7440-31-5	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0474 mg/L	0.04 mg/L	119	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00398 mg/L	0.004 mg/L	99.4	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.404 mg/L	0.4 mg/L	101	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
Total Metals (QCLot: 1399029)										
WP2407730-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000969 mg/L	0 mg/L	96.9	70.0	130	----
Dissolved Metals (QCLot: 1399030)										
WP2407730-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1400445)										
WP2408014-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00916 mg/L	0.01 mg/L	91.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1400445) - continued										
WP2408014-001	Anonymous	Copper, dissolved	7440-50-8	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.00 mg/L	2 mg/L	99.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.8 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0469 mg/L	0.04 mg/L	117	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0188 mg/L	0.02 mg/L	93.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0442 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00380 mg/L	0.004 mg/L	94.9	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.402 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0448 mg/L	0.04 mg/L	112	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F -
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F -
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F -
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F -
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to holidays and
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time R
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Anal
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP

Environmental Division Winnipeg
Work Order Reference
WP2408018

Telephone : +1 204 255 9720

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-04	4-Apr-24	14:15	water	9	X			6.95	0.8	71.3
	SW-TR	4-Apr-24	11:00	water	9	X			4.85	0.6	40.3
	SW-08	4-Apr-24	12:45	water	9	X			6.16	0	69.4
	SW-01	4-Apr-24	9:50	water	9	X			6.11	0.4	32
	SW-Field Blank	4-Apr-24	13:40	water	9	X			N/A	N/A	N/A
	SW-Dup 01	4-Apr-24	13:40	water	9	X			6.42	0	435
	SW-11	4-Apr-24	13:40	water	9	X			6.42	0	435
	SW-Travel Blank	4-Apr-24	N/A	water	9	X			N/A	N/A	N/A

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: Jacob McFee		Time: 7:40	Received by:	Date: APR 09 2024	Time:	Received by:	Time: 12-10C

Sample & Bake Verification Form

Sample Intake					
Client:	Great Pacific				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	14x500, 7x125	Yellow/Black	14x40		
Purple/White	4x100	Light blue/White			
Warm red/White	4x125	Orange/Black			
Dark Green/White	7x60	Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following: Yes	N/A
Received date/time	✓	
Project/PO/LSD	✓	
Quote/Office match CoC	✓	
Sample IDs/Description	✓	
Sample Date/time	✓	
Sales Items as per CoC	✓	
Express Due Dates		✓
Client due date matches ALS Due date	✓	
Client recipient emails	✓	
Guidelines/thresholds added		✓
Billing/payment recorded		✓
Field data entered	✓	
Sub-contracting Forms Printed	✓	
SUBCO/Chromatograph added to client contacts for required analysis		✓
Are sub-samples required?		✓
Has a SIF been submitted for this WO?		✓
Has the SIF been resolved?		✓

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2412615**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 22-May-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 22-May-2024
C-O-C number	: ----	Issue Date	: 30-May-2024 13:11
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Truong	Analyst	Metals, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	20-May-2024 09:30	20-May-2024 10:10	20-May-2024 12:20	20-May-2024 10:50	20-May-2024 11:30
						WP2412615-001	WP2412615-002	WP2412615-003	WP2412615-004	WP2412615-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.72	7.62	7.60	7.75	7.93
Temperature, field	----	EF001/WP	0.10	°C		11.5	13.6	11.1	9.69	11.8
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		29.2	39.0	34.1	36.3	37.8
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		29.2	39.0	34.1	36.3	37.8
Conductivity	----	E100/WP	1.0	µS/cm		81.5	85.7	80.9	87.4	86.1
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		36.9	43.4	39.5	40.2	42.0
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		36.9	43.9	39.0	39.6	41.9
pH	----	E108/WP	0.10	pH units		7.43	7.57	7.56	7.53	7.56
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		68.6	87.2	76.6	72.9	74.6
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		6.2	14.0	4.7	2.0	3.5
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0091	0.0064	<0.0050	0.0106	0.0067
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.50	0.56	1.62	1.50	1.48
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0142	<0.0050	0.0075	0.0218	0.0166
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0142	<0.0051	0.0075	0.0218	0.0166
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0249	0.0331	0.0307	0.0246	0.0203
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		4.78	1.50	3.50	3.34	3.32
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	20-May-2024 09:30	20-May-2024 10:10	20-May-2024 12:20	20-May-2024 10:50	20-May-2024 11:30
						WP2412615-001	WP2412615-002	WP2412615-003	WP2412615-004	WP2412615-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		13.9	16.3	14.5	16.5	12.9
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.233	0.557	0.214	0.0854	0.132
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00024	<0.00010	0.00023	0.00018	0.00019
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00589	0.00102	0.00413	0.00386	0.00422
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00851	0.0151	0.00884	0.00846	0.00882
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000052	0.0000065	0.0000076	<0.0000050	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.2	12.4	11.1	11.4	11.9
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000026	0.000071	0.000028	<0.000010	0.000015
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00060	0.00115	0.00050	0.00028	0.00034
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00060	0.00115	0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00015	0.00024	0.00014	<0.00010	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00162	0.00158	0.00137	0.00116	0.00123
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.323	0.595	0.272	0.129	0.154
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000166	0.000214	0.000102	<0.000050	0.000051
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0016	0.0017	0.0014	0.0012	0.0012
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.78	3.14	2.74	2.70	2.97
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0129	0.0154	0.0108	0.00859	0.00980
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000179	0.000197	0.000185	0.000202	0.000212
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00141	0.00108	0.00113	0.00090	0.00094
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.031	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.01	1.14	1.00	0.946	1.01
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00185	0.00260	0.00186	0.00148	0.00170

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	20-May-2024 09:30	20-May-2024 10:10	20-May-2024 12:20	20-May-2024 10:50	20-May-2024 11:30
						WP2412615-001	WP2412615-002	WP2412615-003	WP2412615-004	WP2412615-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000051	Not Detected	<0.000050	<0.000050	0.000200
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.20	2.69	2.10	1.92	2.00
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.37	1.47	2.00	1.84	1.86
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0274	0.0232	0.0258	0.0262	0.0268
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.05	0.73	1.40	1.28	1.43
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0107	0.0221	0.00980	0.00290	0.00525
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000097	0.000150	0.000101	0.000086	0.000094
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00075	0.00136	0.00065	<0.00050	0.00054
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00022	0.00035	0.00021	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0336	0.0422	0.0272	0.0241	0.0181
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00025	<0.00010	0.00018	0.00015	0.00016
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00453	0.00098	0.00313	0.00288	0.00318
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00633	0.0100	0.00689	0.00763	0.00767
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.4	12.4	11.1	11.6	12.2
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00015	0.00016	0.00014	0.00014	0.00013
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	20-May-2024 09:30	20-May-2024 10:10	20-May-2024 12:20	20-May-2024 10:50	20-May-2024 11:30
						WP2412615-001	WP2412615-002	WP2412615-003	WP2412615-004	WP2412615-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00107	0.00098	0.00102	0.00096	0.00096
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.070	0.080	0.056	0.046	0.030
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0019	0.0016	0.0018	0.0017	0.0018
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.66	3.03	2.86	2.74	2.80
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00253	0.00139	0.00096	0.00089	0.00080
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000182	0.000189	0.000173	0.000202	0.000195
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00108	<0.00050	0.00083	0.00074	0.00074
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	Not Detected	Not Detected	<0.050	Not Detected
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.970	1.07	0.989	0.982	1.03
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00144	0.00184	0.00148	0.00146	0.00137
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000054	0.000060	0.000092	0.000088	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.74	1.70	1.68	1.74	1.63
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	<0.000010	<0.000010	Not Detected	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.38	1.39	2.00	1.85	1.87
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0287	0.0230	0.0256	0.0261	0.0263
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.89	0.82	1.38	1.29	1.39
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00088	0.00107	0.00074	0.00056	0.00056
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000076	0.000112	0.000087	0.000079	0.000084
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0011	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	PL-01	PL-02	PL-03	PL-04	PL-05
					Client sampling date / time	20-May-2024 09:30	20-May-2024 10:10	20-May-2024 12:20	20-May-2024 10:50	20-May-2024 11:30
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2412615-001	WP2412615-002	WP2412615-003	WP2412615-004	WP2412615-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-DUP01	SW-FIELD01	CR-FDP	CR-DS	CR-REF
					Client sampling date / time	20-May-2024 11:30	20-May-2024 11:30	20-May-2024 08:25	20-May-2024 08:55	20-May-2024 13:40
						WP2412615-006	WP2412615-007	WP2412615-008	WP2412615-009	WP2412615-010
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.93	7.93	8.02	7.87	7.62
Temperature, field	----	EF001/WP	0.10	°C		11.8	11.8	11.1	11.4	12.3
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		37.8	4.8	28.3	28.9	28.7
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		37.8	4.8	28.3	28.9	28.7
Conductivity	----	E100/WP	1.0	µS/cm		84.3	7.2	81.0	81.0	82.5
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		42.8	<0.50	36.2	37.5	36.9
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		42.5	<0.50	35.7	37.1	35.8
pH	----	E108/WP	0.10	pH units		7.56	6.93	7.41	7.44	7.32
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		76.2	4.2	79.6	72.6	80.2
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.0	<1.0	5.5	4.2	10.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0066	<0.0050	0.0137	0.0108	0.0067
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.48	Not Detected	2.53	2.45	2.66
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0107	<0.0050	0.0072	0.0084	0.0056
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0107	<0.0051	0.0072	0.0084	0.0056
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0201	0.0021	0.0226	0.0081	0.0437
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		3.26	<0.30	5.11	4.85	5.14
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-DUP01	SW-FIELD01	CR-FDP	CR-DS	CR-REF
					Client sampling date / time	20-May-2024 11:30	20-May-2024 11:30	20-May-2024 08:25	20-May-2024 08:55	20-May-2024 13:40
						WP2412615-006	WP2412615-007	WP2412615-008	WP2412615-009	WP2412615-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.7	<0.50	16.3	14.0	13.0
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.134	<0.0030	0.160	0.247	0.210
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00018	Not Detected	0.00027	0.00027	0.00028
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00430	<0.00010	0.00615	0.00579	0.00616
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00882	Not Detected	0.00790	0.00874	0.00850
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	Not Detected	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	Not Detected	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	Not Detected	<0.0000050	0.0000089	0.0000071
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.0	<0.050	9.96	10.2	10.0
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000014	Not Detected	0.000019	0.000032	0.000023
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00034	<0.00010	0.00077	0.00057	0.00051
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	Not Detected	0.00077	0.00057	0.00051
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	Not Detected	0.00013	0.00016	0.00014
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00126	Not Detected	0.00142	0.00153	0.00160
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.153	Not Detected	0.231	0.317	0.259
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000056	Not Detected	0.000099	0.000120	0.000102
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0012	Not Detected	0.0015	0.0020	0.0015
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.04	<0.0050	2.64	2.82	2.64
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00966	<0.00010	0.0109	0.0123	0.0112
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000199	Not Detected	0.000176	0.000192	0.000174
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00097	Not Detected	0.00142	0.00142	0.00145
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	0.041
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.01	Not Detected	0.949	1.01	0.996
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00167	Not Detected	0.00176	0.00188	0.00186
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	Not Detected	0.000085	0.000126	0.000073
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.00	<0.10	2.04	2.26	2.19

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-DUP01	SW-FIELD01	CR-FDP	CR-DS	CR-REF
					Client sampling date / time	20-May-2024 11:30	20-May-2024 11:30	20-May-2024 08:25	20-May-2024 08:55	20-May-2024 13:40
						WP2412615-006	WP2412615-007	WP2412615-008	WP2412615-009	WP2412615-010
						Result	Result	Result	Result	Result
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.89	Not Detected	2.38	2.35	2.44
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0265	Not Detected	0.0284	0.0275	0.0278
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.29	Not Detected	1.97	1.85	2.09
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	Not Detected	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00515	Not Detected	0.00788	0.0127	0.00942
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000095	Not Detected	0.000092	0.000086	0.000096
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00053	<0.00050	0.00057	0.00085	0.00064
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	Not Detected	<0.00020	0.00024	0.00023
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0167	<0.0010	0.0230	0.0281	0.0239
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00018	Not Detected	0.00026	0.00025	0.00025
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00316	Not Detected	0.00469	0.00448	0.00470
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00743	<0.00010	0.00622	0.00638	0.00594
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	Not Detected	Not Detected	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.2	Not Detected	10.2	10.4	10.5
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	Not Detected	<0.000010	<0.000010	Not Detected
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00013	0.00024	0.00014
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	Not Detected	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	<0.00010
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00096	0.00026	0.00106	0.00160	0.00108
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.029	Not Detected	0.048	0.065	0.044

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-DUP01	SW-FIELD01	CR-FDP	CR-DS	CR-REF
					Client sampling date / time	20-May-2024 11:30	20-May-2024 11:30	20-May-2024 08:25	20-May-2024 08:55	20-May-2024 13:40
						WP2412615-006	WP2412615-007	WP2412615-008	WP2412615-009	WP2412615-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0018	Not Detected	0.0017	0.0018	0.0017
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.01	Not Detected	2.61	2.80	2.60
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00082	Not Detected	0.00161	0.00230	0.00160
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000203	Not Detected	0.000156	0.000201	0.000173
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00079	Not Detected	0.00105	0.00110	0.00108
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	Not Detected	<0.050	Not Detected	Not Detected
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.03	Not Detected	0.980	0.988	0.980
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00132	Not Detected	0.00152	0.00149	0.00144
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000054	Not Detected	<0.000050	0.000067	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.67	<0.050	1.68	1.75	1.71
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.88	<0.050	2.36	2.38	2.29
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0273	<0.00020	0.0290	0.0283	0.0290
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.29	Not Detected	1.94	1.86	1.88
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	Not Detected	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	<0.00010	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00047	Not Detected	0.00056	0.00086	0.00058
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000084	Not Detected	0.000068	0.000068	0.000076
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	Not Detected	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0019	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	Not Detected	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2412615**	Page	: 1 of 39
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 22-May-2024 09:00
PO	: PPR-022-3	Issue Date	: 30-May-2024 13:14
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG5-1462301001	----	Aluminum, total	7429-90-5	E420	0.0058 B mg/L	0.003 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG5-1462301001	----	Magnesium, total	7439-95-4	E420	0.0080 B mg/L	0.005 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG5-1462301001	----	Manganese, total	7439-96-5	E420	0.00025 B mg/L	0.0001 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG5-1462301001	----	Titanium, total	7440-32-6	E420	0.00053 B mg/L	0.0003 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Duplicate (DUP) RPDs								
Dissolved Metals	Anonymous	Anonymous	Selenium, dissolved	7782-49-2	E421	0.000131 MES %	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-03	E298	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-04	E298	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-05	E298	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP01	E298	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELD01	E298	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-DS	E298	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-01	E298	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-02	E298	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-01	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-02	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] PL-05	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP01	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD01	E235.Cl-L	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-01	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-02	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] PL-05	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP01	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD01	E235.NO3-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-01	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-02	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-03	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-04	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] PL-05	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP01	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD01	E235.NO2-L	20-May-2024	22-May-2024	7 days	2 days	✓	22-May-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-01	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-02	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-03	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-04	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] PL-05	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-DUP01	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-FIELD01	E235.SO4	20-May-2024	22-May-2024	28 days	2 days	✓	22-May-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-03	E372-U	20-May-2024	22-May-2024	28 days	2 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-04	E372-U	20-May-2024	22-May-2024	28 days	2 days	✓	23-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-05	E372-U	20-May-2024	22-May-2024	28 days	2 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP01	E372-U	20-May-2024	22-May-2024	28 days	2 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-FIELD01	E372-U	20-May-2024	22-May-2024	28 days	2 days	✓	23-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-01	E372-U	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-02	E372-U	20-May-2024	23-May-2024	28 days	3 days	✓	24-May-2024	28 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP01	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD01	E339-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP01	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD01	E333-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP01	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD01	E336-L	20-May-2024	27-May-2024	14 days	7 days	✓	27-May-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-01	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-02	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-03	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
PL-04	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-05	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-DUP01	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-FIELD01	E421.Cr-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-DS	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-01	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-02	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-03	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-04	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-05	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP01	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-FIELD01	E509	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-01	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-02	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-03	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-04	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-05	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP01	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-FIELD01	E421	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-01	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-02	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-03	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-04	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-05	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP01	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-FIELD01	E421.P-L	20-May-2024	24-May-2024	180 days	4 days	✓	24-May-2024	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-03	EF001	20-May-2024	----	----	----		22-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-04	EF001	20-May-2024	----	----	----		22-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-05	EF001	20-May-2024	----	----	----		22-May-2024	----	2 days	

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-DUP01	EF001	20-May-2024	----	----	----		22-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-FIELD01	EF001	20-May-2024	----	----	----		22-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-DS	EF001	20-May-2024	----	----	----		23-May-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	20-May-2024	----	----	----		23-May-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	20-May-2024	----	----	----		23-May-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-01	EF001	20-May-2024	----	----	----		23-May-2024	----	3 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-02	EF001	20-May-2024	----	----	----		23-May-2024	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-DS	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-REF	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-01	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-02	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-03	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-04	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-05	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP01	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-FIELD01	E358-L	20-May-2024	23-May-2024	28 days	3 days	✓	23-May-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-DS	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-01	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-02	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-03	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-04	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-05	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP01	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-FIELD01	E283	20-May-2024	27-May-2024	14 days	7 days	✓	28-May-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-01	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-02	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-03	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-04	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] PL-05	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-DUP01	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-FIELD01	E290	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-01	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-02	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-03	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-04	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] PL-05	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP01	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELD01	E100	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-01	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-02	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-03	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-04	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] PL-05	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP01	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELD01	E108	20-May-2024	24-May-2024	14 days	4 days	✓	24-May-2024	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-01	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-02	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-03	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-04	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] PL-05	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP01	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-FIELD01	E162-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-01	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-02	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-03	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-04	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-05	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP01	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELD01	E160-L	20-May-2024	----	----	----		23-May-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-01	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-02	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-03	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-04	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-05	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP01	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD01	E420.Cr-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	20-May-2024	28-May-2024	180 days	8 days	✓	28-May-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-01	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-02	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-03	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-04	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-05	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP01	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELD01	E508	20-May-2024	24-May-2024	28 days	4 days	✓	24-May-2024	28 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-01	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-02	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-03	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-04	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-05	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP01	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD01	E420	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	20-May-2024	28-May-2024	180 days	8 days	✓	28-May-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-01	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-02	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-03	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-04	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-05	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP01	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELD01	E420.P-L	20-May-2024	27-May-2024	180 days	7 days	✓	27-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	20-May-2024	28-May-2024	180 days	8 days	✓	28-May-2024	180 days	8 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1460466	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1457168	1	25	4.0	5.0	✗
Ammonia by Fluorescence	E298	1454945	2	39	5.1	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1454988	0	10	0.0	5.0	✗
Conductivity in Water	E100	1457169	1	22	4.5	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1457595	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1457209	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1457593	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1455576	1	18	5.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1457594	1	28	3.5	5.0	✗
Free Cyanide (Low Level)	E339-L	1461208	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1454986	0	10	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1454987	0	10	0.0	5.0	✗
pH by Meter	E108	1457167	2	36	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1454985	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1453922	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1460507	1	18	5.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1461206	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1457206	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1460506	1	29	3.4	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1454816	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1460508	1	21	4.7	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1453920	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1461207	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1460466	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1457168	2	25	8.0	5.0	✓
Ammonia by Fluorescence	E298	1454945	2	39	5.1	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1454988	2	10	20.0	5.0	✓
Conductivity in Water	E100	1457169	2	22	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1457595	2	20	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1457209	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1457593	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1455576	1	18	5.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1457594	2	28	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1461208	1	15	6.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1454986	2	10	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1454987	2	10	20.0	5.0	✓
pH by Meter	E108	1457167	2	36	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1454985	2	12	16.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1453922	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1460507	2	18	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1461206	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1457206	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1460506	2	29	6.9	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1454816	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1460508	2	21	9.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1453920	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1461207	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1460466	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1457168	2	25	8.0	5.0	✓
Ammonia by Fluorescence	E298	1454945	2	39	5.1	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1454988	2	10	20.0	5.0	✓
Conductivity in Water	E100	1457169	2	22	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1457595	2	20	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1457209	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1457593	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1455576	1	18	5.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1457594	2	28	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1461208	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1454986	2	10	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1454987	2	10	20.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1454985	2	12	16.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1453922	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1460507	2	18	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1461206	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1457206	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1460506	2	29	6.9	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1454816	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1460508	2	21	9.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1453920	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1461207	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1454945	2	39	5.1	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1454988	0	10	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1457595	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1457209	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1457593	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1455576	1	18	5.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1457594	1	28	3.5	5.0	✗
Free Cyanide (Low Level)	E339-L	1461208	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1454986	0	10	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1454987	0	10	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1454985	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1460507	1	18	5.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1461206	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1457206	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1460506	1	29	3.4	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1454816	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1460508	1	21	4.7	5.0	✗
WAD Cyanide (Low Level)	E336-L	1461207	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2412615**	Page	: 1 of 25
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 22-May-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 22-May-2024
C-O-C number	: ----	Issue Date	: 30-May-2024 13:18
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Truong	Analyst	Winnipeg Metals, Winnipeg, Manitoba
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1453920)											
WP2412489-005	Anonymous	Solids, total suspended [TSS]	----	E160-L	15.0	mg/L	936	980	4.59%	20%	----
Physical Tests (QC Lot: 1453922)											
WP2412489-005	Anonymous	Solids, total dissolved [TDS]	----	E162-L	30.0	mg/L	158	145	13.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1457167)											
WP2412522-001	Anonymous	pH	----	E108	0.10	pH units	8.17	8.12	0.614%	4%	----
Physical Tests (QC Lot: 1457168)											
WP2412522-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	212	213	0.611%	20%	----
Physical Tests (QC Lot: 1457169)											
WP2412522-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	359	359	0.00%	10%	----
Physical Tests (QC Lot: 1457582)											
WP2412813-004	Anonymous	pH	----	E108	0.10	pH units	9.48	9.52	0.421%	4%	----
Physical Tests (QC Lot: 1460466)											
WP2412615-001	PL-01	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1454816)											
WP2412486-015	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0261	0.0276	5.84%	20%	----
Anions and Nutrients (QC Lot: 1454945)											
WP2412512-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.250	mg/L	19.2	19.3	0.543%	20%	----
Anions and Nutrients (QC Lot: 1455080)											
WP2412771-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	111	112	0.462%	20%	----
Anions and Nutrients (QC Lot: 1455789)											
WP2412775-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0700	0.0687	1.86%	20%	----
Anions and Nutrients (QC Lot: 1456948)											
WP2412615-001	PL-01	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0249	0.0238	4.52%	20%	----
Cyanides (QC Lot: 1461206)											
VA24B1465-020	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1461207)											
VA24B1465-020	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1461208)											
WP2412615-001	PL-01	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1455576)											
WP2411638-010	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	16.4	14.3	13.8%	20%	----
Total Metals (QC Lot: 1457206)											
WP2412462-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1462301)											
WP2412615-009	CR-DS	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00057	0.00053	0.00004	Diff <2x LOR	----
Total Metals (QC Lot: 1462302)											
WP2412615-009	CR-DS	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1462303)											
WP2412615-009	CR-DS	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.247	0.248	0.0652%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00027	0.00027	0.000004	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00579	0.00590	1.88%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00874	0.00892	2.05%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000089	0.0000080	0.0000008	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	10.2	10.2	0.0502%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000032	0.000028	0.000004	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00057	0.00053	0.00004	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00016	0.00015	0.000009	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00153	0.00151	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.317	0.305	3.90%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000120	0.000112	0.000008	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0020	0.0019	0.00007	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.82	2.83	0.625%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0123	0.0122	0.0466%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000192	0.000166	0.000026	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00142	0.00142	0.0000004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.01	0.994	1.97%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00188	0.00190	0.00001	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000126	0.000143	0.000017	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.26	2.11	6.99%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1462303) - continued											
WP2412615-009	CR-DS	Sodium, total	7440-23-5	E420	0.050	mg/L	2.35	2.42	2.98%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0275	0.0282	2.26%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1.85	1.69	0.16	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0127	0.0121	4.73%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000086	0.000089	0.000003	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00085	0.00079	0.00007	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00024	0.00026	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1457209)											
WP2412486-014	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1457593)											
WP2412486-010	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0239	0.0250	4.76%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00083	0.00083	0.000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00296	0.00297	0.122%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0173	0.0177	2.36%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000141	0.0000152	0.0000010	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	17.1	17.0	0.688%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000018	0.000016	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00012	0.00012	0.000002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00276	0.00268	2.82%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	1.11	1.11	0.442%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00268	0.00267	0.384%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1457593) - continued											
WP2412486-010	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000521	0.000522	0.159%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.95	1.94	0.644%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00243	0.00254	4.36%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000242	# 0.000372	0.000131	Diff <2x LOR	MES
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.41	1.41	0.304%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.000020	0.000021	0.0000008	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.88	1.81	3.88%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0595	0.0600	0.888%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.32	1.17	0.15	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00045	0.00030	0.00014	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00090	0.00089	0.000008	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000987	0.000978	0.926%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00133	0.00132	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0035	0.0034	0.00004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1457594)											
WP2412486-010	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1458145)											
WP2412267-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00532	0.00533	0.198%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0143	0.0146	1.75%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.912	0.913	0.0549%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.500	mg/L	309	294	5.12%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000070	0.000068	0.000002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1458145) - continued											
WP2412267-001	Anonymous	Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00045	0.00044	0.000006	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.727	0.740	1.77%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.293	0.299	2.12%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	179	184	2.60%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0328	0.0329	0.269%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00237	0.00239	0.654%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00124	0.00129	0.00004	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	38.5	40.0	3.60%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0148	0.0149	0.696%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	0.000068	0.000018	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.68	6.76	1.24%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.500	mg/L	1230	1210	1.56%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	4.35	4.37	0.563%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	386	391	1.09%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	0.00020	<0.00020	0.000004	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000550	0.000547	0.624%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0428	0.0438	2.52%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1453920)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1453922)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1457168)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1457169)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1457583)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1457584)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1460466)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1454816)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1454945)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1454985)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1454986)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1454987)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1454988)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1455080)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1455081)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1455082)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1455083)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1455789)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1456948)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1461206)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1461207)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1461208)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1455576)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1457206)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1460506)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1460506) - continued						
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1460507)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1460508)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1462301)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1462302)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1462303)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	# 0.0058	B
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1462303) - continued						
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	# 0.0080	B
Manganese, total	7439-96-5	E420	0.0001	mg/L	# 0.00025	B
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	# 0.00053	B
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1457209)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1457593)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1457593) - continued						
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1457594)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1457595)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1458145)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1458145) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1458146)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1458147)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1453920)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	99.0	85.0	115	----
Physical Tests (QCLot: 1453922)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.1	85.0	115	----
Physical Tests (QCLot: 1457167)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1457168)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1457169)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1457582)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1457583)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.7	85.0	115	----
Physical Tests (QCLot: 1457584)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1460466)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1454816)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	99.2	80.0	120	----
Anions and Nutrients (QCLot: 1454945)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.0	85.0	115	----
Anions and Nutrients (QCLot: 1454985)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1454986)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1454987)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1454988)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1455080)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1455081)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1455082)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1455083)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 1455789)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.2	85.0	115	----
Anions and Nutrients (QCLot: 1456948)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	97.3	80.0	120	----
Cyanides (QCLot: 1461206)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.4	80.0	120	----
Cyanides (QCLot: 1461207)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	95.8	80.0	120	----
Cyanides (QCLot: 1461208)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.5	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1455576)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	101	80.0	120	----
Total Metals (QCLot: 1457206)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.9	80.0	120	----
Total Metals (QCLot: 1460506)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.8	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.5	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.4	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.3	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	98.2	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1460506) - continued									
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	96.9	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	99.1	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	96.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.5	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.9	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	100	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.5	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.5	80.0	120	----
Total Metals (QCLot: 1460507)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
Total Metals (QCLot: 1460508)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	99.1	80.0	120	----
Total Metals (QCLot: 1462301)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Total Metals (QCLot: 1462302)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	113	80.0	120	----
Total Metals (QCLot: 1462303)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1462303) - continued									
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	106	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	105	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	112	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	118	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	109	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	113	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	99.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.6	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1462303) - continued									
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	98.9	80.0	120	----
Dissolved Metals (QCLot: 1457593)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	107	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	111	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	106	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	106	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.0	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.1	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	99.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	112	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	98.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	94.6	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	98.6	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	107	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1457593) - continued									
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.9	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.9	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	106	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 1457595)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1458145)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	98.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.0	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.9	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	97.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	96.8	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.4	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.9	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.9	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	95.6	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	92.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1458145) - continued									
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	97.5	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	100.0	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.3	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.8	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	95.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.0	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.7	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	95.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	94.0	80.0	120	----
Dissolved Metals (QCLot: 1458146)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1454816)										
WP2412486-016	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.247 mg/L	0.25 mg/L	98.9	70.0	130	----
Anions and Nutrients (QCLot: 1454945)										
WP2412512-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1455080)										
WP2412771-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1455789)										
WP2412775-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0993 mg/L	0.1 mg/L	99.3	75.0	125	----
Anions and Nutrients (QCLot: 1456948)										
WP2412615-002	PL-02	Phosphorus, total	7723-14-0	E372-U	0.237 mg/L	0.25 mg/L	94.9	70.0	130	----
Cyanides (QCLot: 1461206)										
VA24B1465-020	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.209 mg/L	0.25 mg/L	83.8	75.0	125	----
Cyanides (QCLot: 1461207)										
VA24B1465-020	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.119 mg/L	0.125 mg/L	95.4	75.0	125	----
Cyanides (QCLot: 1461208)										
WP2412615-001	PL-01	Cyanide, free	----	E339-L	0.119 mg/L	0.125 mg/L	95.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1455576)										
WP2411873-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1457206)										
WP2412483-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000951 mg/L	0 mg/L	95.1	70.0	130	----
Total Metals (QCLot: 1462301)										
WP2412615-009	CR-DS	Chromium, total	7440-47-3	E420.Cr-L	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
Total Metals (QCLot: 1462302)										
WP2412615-009	CR-DS	Phosphorus, total	7723-14-0	E420.P-L	10.5 mg/L	10 mg/L	105	70.0	130	----
Total Metals (QCLot: 1462303)										
WP2412615-009	CR-DS	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00993 mg/L	0.01 mg/L	99.3	70.0	130	----
		Boron, total	7440-42-8	E420	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00418 mg/L	0.004 mg/L	105	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1462303) - continued										
WP2412615-009	CR-DS	Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, total	7440-50-8	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, total	7439-89-6	E420	2.04 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.5 mg/L	10 mg/L	105	70.0	130	----
		Potassium, total	7440-09-7	E420	4.42 mg/L	4 mg/L	111	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, total	7440-21-3	E420	9.92 mg/L	10 mg/L	99.2	70.0	130	----
		Silver, total	7440-22-4	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.0 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00384 mg/L	0.004 mg/L	96.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Tin, total	7440-31-5	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0402 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00392 mg/L	0.004 mg/L	98.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.418 mg/L	0.4 mg/L	104	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1457209)										
WP2412486-015	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000956 mg/L	0 mg/L	95.6	70.0	130	----
Dissolved Metals (QCLot: 1457593)										
WP2412486-010	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.213 mg/L	0.2 mg/L	106	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0444 mg/L	0.04 mg/L	111	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1457593) - continued										
WP2412486-010	Anonymous	Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.93 mg/L	2 mg/L	96.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.08 mg/L	4 mg/L	102	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0486 mg/L	0.04 mg/L	121	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.80 mg/L	10 mg/L	98.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00411 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.88 mg/L	2 mg/L	94.0	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.4 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0420 mg/L	0.04 mg/L	105	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00406 mg/L	0.004 mg/L	102	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.410 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1457594)										
WP2412486-010	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.8 mg/L	10 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1457595)										
WP2412489-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	----	----		70.0	130	----
Dissolved Metals (QCLot: 1458145)										
WP2412267-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.237 mg/L	0.2 mg/L	118	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0198 mg/L	0.02 mg/L	99.3	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00874 mg/L	0.01 mg/L	87.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00364 mg/L	0.004 mg/L	90.9	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1458145) - continued										
WP2412267-001	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0422 mg/L	0.04 mg/L	105	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0175 mg/L	0.02 mg/L	87.3	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.06 mg/L	2 mg/L	103	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0177 mg/L	0.02 mg/L	88.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	ND mg/L	----	ND	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0362 mg/L	0.04 mg/L	90.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	12.7 mg/L	10 mg/L	127	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0378 mg/L	0.04 mg/L	94.4	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	11.3 mg/L	10 mg/L	113	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00371 mg/L	0.004 mg/L	92.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00365 mg/L	0.004 mg/L	91.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0462 mg/L	0.04 mg/L	116	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00380 mg/L	0.004 mg/L	95.1	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.363 mg/L	0.4 mg/L	90.7	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0464 mg/L	0.04 mg/L	116	70.0	130	----

Report To		Reports / Recipients	Turnaround Time
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surc
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rus
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% ru
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% ru
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% r
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S -
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rus holidays and fo
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Req
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Analys
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients			
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX			
Job #:	PPR-022-3	Email 1 invoice@kinross.com			
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: EM/JM		

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW - Q	SW - M		Field pH	Field Temperature	Field Conductivity (us/cm)
1	PL-01	20-May-24	9:30	WATER	9	X			7.72	11.47	59.4
2	PL-02	20-May-24	10:10	WATER	9	X			7.62	13.62	64.4
3	PL-03	20-May-24	12:20	WATER	9	X			7.6	11.12	59.4
4	PL-04	20-May-24	10:50	WATER	9	X			7.75	9.69	58.8
5	PL-05	20-May-24	11:30	WATER	9	X			7.93	11.85	60.5
6	SW-DUP01	20-May-24	11:30	WATER	9	X			7.93	11.85	60.5
7	SW-FIELD01	20-May-24	11:30	WATER	9	X			7.93	11.85	60.5
8	CR-FDP	20-May-24	8:25	WATER	9		X		8.02	11.1	58.3
9	CR-DS	20-May-24	8:55	WATER	9		X		7.87	11.4	58.8
10	CR-REF	20-May-24	13:40	WATER	9		X		7.62	12.3	61.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Date: 21 MAY 2024	Time: 10:00	Received by:	Date: MAY 22 2024	Time: 9W	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2412615

Telephone : +1 204 255 9720

14-2.

Sample Intake					
Client:	ICHROSS				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	1x250, 4x250	Yellow/Black	10x40		
Purple/White	10x100	Light blue/White			
Warm red/White	10x125	Orange/Black			
Dark Green/White	5x60	Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following: Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?	✓	—
Has the SIF been resolved?		

Missing. PL-01, PL-02, CR-FDP, DS & REF.

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2412814**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 23-May-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 23-May-2024
C-O-C number	: ----	Issue Date	: 30-May-2024 15:58
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Truong	Analyst	Metals, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-15	SW-08A	SW-TR	SW-10
					Client sampling date / time	21-May-2024 15:00	21-May-2024 13:50	21-May-2024 13:25	21-May-2024 12:35	21-May-2024 10:50
						WP2412814-001	WP2412814-002	WP2412814-003	WP2412814-004	WP2412814-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.65	7.23	6.25	4.43	7.33
Temperature, field	----	EF001/WP	0.10	°C		14.3	13.7	9.93	14.4	13.4
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	2.7	18.3	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.6	36.1	31.7	<1.0	38.1
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.6	36.1	31.7	<1.0	38.1
Conductivity	----	E100/WP	1.0	µS/cm		72.6	80.2	81.6	32.5	81.4
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		37.7	40.4	45.6	8.57	42.9
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		38.9	44.7	58.0	9.06	48.7
pH	----	E108/WP	0.10	pH units		7.50	7.38	7.29	4.36	7.38
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		61.7	75.0	176	61.7	80.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		6.5	8.6	39.1	1.4	61.2
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0110	0.0086	0.0198	0.0095	0.0113
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.32	0.62	1.58	<0.10	0.23
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0116	0.0141	0.0684	<0.0050	0.0082
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0116	0.0141	0.0684	<0.0051	0.0082
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0363	0.0350	0.0976	0.0244	0.0362
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.92	0.87	2.24	0.73	0.84
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0500 DLM	<0.0010	0.0012	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-15	SW-08A	SW-TR	SW-10
					Client sampling date / time	21-May-2024 15:00	21-May-2024 13:50	21-May-2024 13:25	21-May-2024 12:35	21-May-2024 10:50
						WP2412814-001	WP2412814-002	WP2412814-003	WP2412814-004	WP2412814-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0011	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		18.8	23.2	49.8	45.8	25.3
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.503	0.665	10.2	0.488	1.32
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00018	0.00017	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00210	0.00217	0.00432	0.00545	0.00270
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0110	0.0136	0.0690	0.00607	0.0223
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000025	0.000022	0.000229	0.000026	0.000052
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	0.000058	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	0.011	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000053	0.0000064	0.0000283	0.0000201	0.0000212
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.1	11.5	13.6	2.34	12.5
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000049	0.000068	0.000891	0.000028	0.000146
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00098	0.00135	0.0163	0.00068	0.00287
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00098	0.00135	0.0163	0.00068	0.00287
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00024	0.00031	0.00247	0.00041	0.00098
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00123	0.00147	0.00921	0.00095	0.00246
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.788	0.947	7.97	0.851	1.97
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000190	0.000253	0.00228	0.000430	0.000706
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0019	0.0024	0.0101	<0.0010	0.0035
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.33	3.88	5.85	0.781	4.24
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0304	0.0304	0.0858	0.0197	0.142
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000167	0.0000071	0.0000073
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000202	0.000284	0.000332	0.000081	0.000280
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00102	0.00134	0.00935	0.00082	0.00245
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.046	0.041	0.103	0.052	0.133
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	0.103	0.052	0.133
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.07	1.17	2.62	0.087	1.38
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00247	0.00255	0.0178	0.00041	0.00373

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-15	SW-08A	SW-TR	SW-10
					Client sampling date / time	21-May-2024 15:00	21-May-2024 13:50	21-May-2024 13:25	21-May-2024 12:35	21-May-2024 10:50
						WP2412814-001	WP2412814-002	WP2412814-003	WP2412814-004	WP2412814-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000123	0.000168	0.000275	0.000204	0.000160
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.14	3.25	25.0	3.53	4.18
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000052	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.57	1.82	3.18	0.807	1.80
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0249	0.0254	0.0381	0.0114	0.0276
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.50	0.57	0.92	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	<0.00020	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	0.000010	0.000095	<0.000010	0.000020
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00011	0.00013	0.00165	0.00013	0.00020
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00025	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0206	0.0283	0.408	0.00556	0.0592
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00019	Not Detected	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000184	0.000171	0.000381	0.000076	0.000284
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00150	0.00176	0.0182	0.00113	0.00348
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0221	0.0047	0.0068
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00051	0.00063	0.00832	0.00034	0.00074
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0764	0.106	0.269	0.474	0.0965
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00014	0.00019	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00181	0.00187	0.00289	0.00502	0.00183
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00716	0.00831	0.00807	0.00560	0.00851
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	0.000028	0.000030	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	<0.000050	<0.000050	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000125	0.0000173	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.0	10.7	12.1	2.21	11.2
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000020	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00034	0.00037	0.00098	0.00064	0.00039
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00098	0.00064	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00010	0.00025	0.00040	0.00013

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-15	SW-08A	SW-TR	SW-10
					Client sampling date / time	21-May-2024 15:00	21-May-2024 13:50	21-May-2024 13:25	21-May-2024 12:35	21-May-2024 10:50
						WP2412814-001	WP2412814-002	WP2412814-003	WP2412814-004	WP2412814-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00078	0.00097	0.00203	0.00087	0.00088
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.338	0.277	0.440	0.817	0.318
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000070	0.000082	0.000105	0.000417	0.000068
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0017	0.0018	0.0018	<0.0010	0.0018
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.10	3.32	3.75	0.742	3.62
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0235	0.0184	0.0212	0.0182	0.0279
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000068	0.0000059	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000182	0.000272	0.000248	0.000069	0.000279
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00058	0.00068	0.00166	0.00079	0.00075
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.03	1.03	0.727	0.067	1.00
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00162	0.00140	0.00111	0.00034	0.00142
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000092	<0.000050	0.000147	0.000134	0.000093
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.08	2.06	5.07	3.42	2.08
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.47	1.73	2.88	0.777	1.68
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0238	0.0245	0.0267	0.0112	0.0230
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.64	<0.50	0.88	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00025	0.00014	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	<0.00010	<0.00010	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00225	0.00345	0.0100	0.00444	0.00294
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000168	0.000143	0.000146	0.000077	0.000157
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00061	0.00063	0.00127	0.00091	0.00062
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0014	0.0025	0.0043	0.0012
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00034	0.00047	0.00093	0.00038	0.00043
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	SW-15	SW-08A	SW-TR	SW-10
					Client sampling date / time	21-May-2024 15:00	21-May-2024 13:50	21-May-2024 13:25	21-May-2024 12:35	21-May-2024 10:50
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2412814-001	WP2412814-002	WP2412814-003	WP2412814-004	WP2412814-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-09	DUP-02	BLANK-02	----	----
					Client sampling date / time	21-May-2024 11:45	21-May-2024 13:50	21-May-2024 14:00	----	----
						WP2412814-006	WP2412814-007	WP2412814-008	--------	--------
						Result	Result	Result	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.36	7.23	<0.10	----	----
Temperature, field	----	EF001/WP	0.10	°C		13.9	13.7	<0.10	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		34.5	36.7	<1.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		34.5	36.7	<1.0	----	----
Conductivity	----	E100/WP	1.0	µS/cm		74.1	79.8	Not Detected	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		38.3	42.6	<0.50	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		39.6	44.2	<0.50	----	----
pH	----	E108/WP	0.10	pH units		7.48	7.40	5.39	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		70.0	75.7	<3.0	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		9.2	7.7	<1.0	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0449	0.0137	<0.0050	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.33	0.58	Not Detected	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0158	0.0121	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0158	0.0121	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0378	0.0345	<0.0020	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.89	0.84	<0.30	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-09	DUP-02	BLANK-02	----	----
					Client sampling date / time	21-May-2024 11:45	21-May-2024 13:50	21-May-2024 14:00	----	----
						WP2412814-006	WP2412814-007	WP2412814-008	--------	--------
						Result	Result	Result	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		19.6	24.1	1.16	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.570	0.670	<0.0030	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00212	0.00220	<0.00010	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0124	0.0133	<0.00010	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000024	0.000026	Not Detected	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000054	0.0000095	<0.0000050	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.3	11.4	<0.050	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000058	0.000066	Not Detected	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00118	0.00140	<0.00010	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00118	0.00140	Not Detected	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00028	0.00028	Not Detected	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00134	0.00144	<0.00050	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.858	0.908	<0.010	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000211	0.000231	<0.000050	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	0.0024	Not Detected	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.38	3.83	0.0071	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0301	0.0286	<0.00010	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000203	0.000296	<0.000050	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00112	0.00134	Not Detected	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.045	0.049	<0.030	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.11	1.16	<0.050	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00253	0.00248	Not Detected	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000143	0.000139	<0.000050	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.21	3.37	<0.10	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-09	DUP-02	BLANK-02	----	----
					Client sampling date / time	21-May-2024 11:45	21-May-2024 13:50	21-May-2024 14:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2412814-006	WP2412814-007	WP2412814-008	--------	--------
						Result	Result	Result	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.53	1.84	<0.050	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0243	0.0247	<0.00020	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.51	<0.50	Not Detected	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00012	0.00012	Not Detected	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0241	0.0281	<0.00030	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000181	0.000170	Not Detected	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00163	0.00180	<0.00050	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00061	0.00073	Not Detected	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0746	0.0927	<0.0010	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00180	0.00190	<0.00010	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00758	0.00805	<0.00010	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	Not Detected	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	0.0000052	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.1	11.1	Not Detected	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	Not Detected	Not Detected	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00033	0.00042	<0.00010	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	Not Detected	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00011	<0.00010	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00082	0.00093	0.00035	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.341	0.299	Not Detected	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-09	DUP-02	BLANK-02	----	----
					Client sampling date / time	21-May-2024 11:45	21-May-2024 13:50	21-May-2024 14:00	----	----
						WP2412814-006	WP2412814-007	WP2412814-008	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000071	0.000075	Not Detected	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0015	0.0018	Not Detected	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.18	3.62	0.0074	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0203	0.0190	<0.00010	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000191	0.000282	<0.000050	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00062	0.00079	Not Detected	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	Not Detected	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.934	0.974	Not Detected	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00151	0.00140	Not Detected	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000106	0.000096	Not Detected	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.11	2.09	<0.050	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.51	1.85	Not Detected	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0232	0.0230	Not Detected	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	Not Detected	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00274	0.00265	Not Detected	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000168	0.000155	Not Detected	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00059	0.00061	Not Detected	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0011	0.0013	0.0011	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00035	0.00042	Not Detected	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2412814**	Page	: 1 of 33
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 23-May-2024 09:00
PO	: PPR-022-3	Issue Date	: 30-May-2024 15:53
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Physical Tests	QC-MRG2-1457177 001	----	Alkalinity, total (as CaCO3)	----	E290	1.0 mg/L	1 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG5-1462301 001	----	Aluminum, total	7429-90-5	E420	0.0058 B mg/L	0.003 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG5-1462301 001	----	Magnesium, total	7439-95-4	E420	0.0080 B mg/L	0.005 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG5-1462301 001	----	Manganese, total	7439-96-5	E420	0.00025 B mg/L	0.0001 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG5-1462301 001	----	Titanium, total	7440-32-6	E420	0.00053 B mg/L	0.0003 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK-02	E298	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-02	E298	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08A	E298	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-09	E298	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-10	E298	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-15	E298	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
SW-TR	E298	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-02	E235.Cl-L	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-02	E235.Cl-L	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.Cl-L	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.Cl-L	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.Cl-L	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-10	E235.Cl-L	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-15	E235.Cl-L	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TR	E235.Cl-L	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] BLANK-02	E235.NO3-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO3-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO3-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO3-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-10	E235.NO3-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-15	E235.NO3-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO3-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BLANK-02	E235.NO2-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-02	E235.NO2-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO2-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.NO2-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-09	E235.NO2-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-10	E235.NO2-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-15	E235.NO2-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TR	E235.NO2-L	21-May-2024	23-May-2024	7 days	2 days	✓	23-May-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BLANK-02	E235.SO4	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP-02	E235.SO4	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08	E235.SO4	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08A	E235.SO4	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-09	E235.SO4	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-10	E235.SO4	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-15	E235.SO4	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TR	E235.SO4	21-May-2024	23-May-2024	28 days	2 days	✓	23-May-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK-02	E372-U	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-02	E372-U	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08A	E372-U	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-10	E372-U	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-15	E372-U	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	21-May-2024	23-May-2024	28 days	2 days	✓	24-May-2024	28 days	3 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK-02	E339-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-02	E339-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08A	E339-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E339-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E339-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-02	E333-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E333-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E333-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E333-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-02	E336-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E336-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E336-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E336-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	21-May-2024	27-May-2024	14 days	6 days	✓	27-May-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	21-May-2024	24-May-2024	180 days	3 days	✓	24-May-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-15	E421.Cr-L	21-May-2024	24-May-2024	180 days	3 days	✓	24-May-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-02	E421.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-10	E421.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TR	E421.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) BLANK-02	E509	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-02	E509	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08A	E509	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-10	E509	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-15	E509	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	21-May-2024	24-May-2024	180 days	3 days	✓	24-May-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-15	E421	21-May-2024	24-May-2024	180 days	3 days	✓	24-May-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK-02	E421	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-02	E421	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08A	E421	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-10	E421	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	21-May-2024	24-May-2024	180 days	3 days	✓	24-May-2024	180 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-15	E421.P-L	21-May-2024	24-May-2024	180 days	3 days	✓	24-May-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
BLANK-02	E421.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-09	E421.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-10	E421.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
BLANK-02	EF001	21-May-2024	----	----	----		23-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-02	EF001	21-May-2024	----	----	----		23-May-2024	----	2 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08	EF001	21-May-2024	----	----	----		23-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08A	EF001	21-May-2024	----	----	----		23-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-09	EF001	21-May-2024	----	----	----		23-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-10	EF001	21-May-2024	----	----	----		23-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-15	EF001	21-May-2024	----	----	----		23-May-2024	----	2 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	21-May-2024	----	----	----		23-May-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK-02	E358-L	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-02	E358-L	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08	E358-L	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-09	E358-L	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-10	E358-L	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-15	E358-L	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TR	E358-L	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE BLANK-02	E283	21-May-2024	27-May-2024	14 days	6 days	✓	28-May-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP-02	E283	21-May-2024	27-May-2024	14 days	6 days	✓	28-May-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	21-May-2024	27-May-2024	14 days	6 days	✓	28-May-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08A	E283	21-May-2024	27-May-2024	14 days	6 days	✓	28-May-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-09	E283	21-May-2024	27-May-2024	14 days	6 days	✓	28-May-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-10	E283	21-May-2024	27-May-2024	14 days	6 days	✓	28-May-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-15	E283	21-May-2024	27-May-2024	14 days	6 days	✓	28-May-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	21-May-2024	27-May-2024	14 days	6 days	✓	28-May-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK-02	E290	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-02	E290	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08A	E290	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-09	E290	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-10	E290	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-15	E290	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK-02	E100	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-02	E100	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08A	E100	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-10	E100	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-15	E100	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK-02	E108	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-02	E108	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08A	E108	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-10	E108	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-15	E108	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	21-May-2024	24-May-2024	14 days	3 days	✓	24-May-2024	14 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK-02	E162-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-02	E162-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08A	E162-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-10	E162-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-15	E162-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK-02	E160-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-02	E160-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-10	E160-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-15	E160-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	21-May-2024	----	----	----		24-May-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-02	E420.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-10	E420.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-15	E420.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-02	E508	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-10	E508	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-15	E508	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	21-May-2024	24-May-2024	28 days	3 days	✓	24-May-2024	28 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK-02	E420	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-10	E420	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-15	E420	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-02	E420.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-10	E420.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-15	E420.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	21-May-2024	28-May-2024	180 days	7 days	✓	28-May-2024	180 days	7 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1460513	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1457177	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1456030	1	18	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1455973	1	8	12.5	5.0	✓
Conductivity in Water	E100	1457179	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1458146	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1457224	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1458145	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1457093	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1458147	1	27	3.7	5.0	✗
Free Cyanide (Low Level)	E339-L	1460937	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1455971	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1455972	1	8	12.5	5.0	✓
pH by Meter	E108	1457178	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1455970	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1456141	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1462301	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1460938	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1457207	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1462303	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1456949	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1462302	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1456138	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1460936	1	17	5.8	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1460513	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1457177	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1456030	1	18	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1455973	2	8	25.0	5.0	✓
Conductivity in Water	E100	1457179	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1458146	2	16	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1457224	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1458145	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1457093	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1458147	2	27	7.4	5.0	✓
Free Cyanide (Low Level)	E339-L	1460937	1	17	5.8	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1455971	2	8	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1455972	2	8	25.0	5.0	✓
pH by Meter	E108	1457178	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1455970	2	19	10.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1456141	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1462301	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1460938	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1457207	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1462303	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1456949	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1462302	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1456138	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1460936	1	17	5.8	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1460513	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1457177	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1456030	1	18	5.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1455973	2	8	25.0	5.0	✓
Conductivity in Water	E100	1457179	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1458146	2	16	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1457224	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1458145	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1457093	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1458147	2	27	7.4	5.0	✓
Free Cyanide (Low Level)	E339-L	1460937	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1455971	2	8	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1455972	2	8	25.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1455970	2	19	10.5	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1456141	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1462301	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1460938	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1457207	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1462303	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1456949	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1462302	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1456138	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1460936	1	17	5.8	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1456030	1	18	5.5	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1455973	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1458146	1	16	6.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1457224	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1458145	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1457093	1	19	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1458147	1	27	3.7	5.0	×
Free Cyanide (Low Level)	E339-L	1460937	1	17	5.8	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1455971	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1455972	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1455970	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1462301	1	9	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1460938	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1457207	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1462303	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1456949	1	19	5.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1462302	1	12	8.3	5.0	✓
WAD Cyanide (Low Level)	E336-L	1460936	1	17	5.8	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2412814**	Page	: 1 of 23
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 23-May-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 23-May-2024
C-O-C number	: ----	Issue Date	: 30-May-2024 15:49
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Truong	Analyst	Winnipeg Metals, Winnipeg, Manitoba
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1456138)											
WP2412814-001	SW-08	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	6.5	6.1	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 1456141)											
WP2412492-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	20.0	mg/L	1760	1460	18.3%	20%	----
Physical Tests (QC Lot: 1457177)											
WP2412814-001	SW-08	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.6	33.5	0.298%	20%	----
Physical Tests (QC Lot: 1457178)											
WP2412814-001	SW-08	pH	----	E108	0.10	pH units	7.50	7.46	0.535%	4%	----
Physical Tests (QC Lot: 1457179)											
WP2412814-001	SW-08	Conductivity	----	E100	1.0	µS/cm	72.6	71.8	1.11%	10%	----
Physical Tests (QC Lot: 1460513)											
WP2412814-001	SW-08	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1455976)											
WP2412814-002	SW-15	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.87	0.87	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1455977)											
WP2412814-002	SW-15	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0141	0.0140	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1455978)											
WP2412814-002	SW-15	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1455979)											
WP2412814-002	SW-15	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.62	0.62	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1456030)											
WP2412771-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0100	mg/L	0.592	0.584	1.45%	20%	----
Anions and Nutrients (QC Lot: 1456949)											
WP2412814-001	SW-08	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0363	0.0352	2.96%	20%	----
Cyanides (QC Lot: 1460936)											
WP2412814-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1460937)											
WP2412814-001	SW-08	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1460938)											
WP2412814-001	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0500	mg/L	<0.0500	<0.0500	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1457093)											
WP2412814-001	SW-08	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	18.8	20.0	6.17%	20%	----
Total Metals (QC Lot: 1457207)											
WP2412773-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1462301)											
WP2412615-009	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00057	0.00053	0.00004	Diff <2x LOR	----
Total Metals (QC Lot: 1462302)											
WP2412615-009	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1462303)											
WP2412615-009	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.247	0.248	0.0652%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00027	0.00027	0.000004	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00579	0.00590	1.88%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00874	0.00892	2.05%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000089	0.0000080	0.0000008	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	10.2	10.2	0.0502%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000032	0.000028	0.000004	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00057	0.00053	0.00004	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00016	0.00015	0.000009	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00153	0.00151	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.317	0.305	3.90%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000120	0.000112	0.000008	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0020	0.0019	0.00007	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.82	2.83	0.625%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0123	0.0122	0.0466%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000192	0.000166	0.000026	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00142	0.00142	0.0000004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.01	0.994	1.97%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00188	0.00190	0.00001	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000126	0.000143	0.000017	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.26	2.11	6.99%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1462303) - continued											
WP2412615-009	Anonymous	Sodium, total	7440-23-5	E420	0.050	mg/L	2.35	2.42	2.98%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0275	0.0282	2.26%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1.85	1.69	0.16	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0127	0.0121	4.73%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000086	0.000089	0.000003	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00085	0.00079	0.00007	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00024	0.00026	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1457224)											
WP2412801-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000734	0.0000724	1.37%	20%	----
Dissolved Metals (QC Lot: 1458145)											
WP2412267-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00532	0.00533	0.198%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0143	0.0146	1.75%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.912	0.913	0.0549%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.500	mg/L	309	294	5.12%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000070	0.000068	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00045	0.00044	0.000006	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.727	0.740	1.77%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.293	0.299	2.12%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	179	184	2.60%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0328	0.0329	0.269%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1458145) - continued											
WP2412267-001	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00237	0.00239	0.654%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00124	0.00129	0.00004	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	38.5	40.0	3.60%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0148	0.0149	0.696%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	0.000068	0.000018	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.68	6.76	1.24%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.500	mg/L	1230	1210	1.56%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	4.35	4.37	0.563%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	386	391	1.09%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	0.00020	<0.00020	0.000004	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000550	0.000547	0.624%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0428	0.0438	2.52%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1462860)											
WP2412814-003	SW-08A	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.269	0.270	0.470%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00014	0.00015	0.000005	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00289	0.00293	1.52%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00807	0.00813	0.682%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000028	0.000028	0.0000001	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000125	0.0000097	0.0000028	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	12.1	12.2	0.635%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00098	0.00096	0.00002	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00025	0.00027	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1462860) - continued											
WP2412814-003	SW-08A	Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00203	0.00200	1.84%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.440	0.430	2.38%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000105	0.000115	0.000010	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0018	0.0018	0.00002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	3.75	3.72	0.778%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0212	0.0216	1.74%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000248	0.000247	0.0000009	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00166	0.00165	0.00001	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.727	0.727	0.0698%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00111	0.00108	0.00004	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000147	0.000139	0.000008	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.07	5.10	0.700%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.88	2.84	1.22%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0267	0.0273	2.29%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.88	0.89	0.005	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	0.00025	0.00026	0.00001	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.0100	0.0103	3.38%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000146	0.000154	5.17%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00127	0.00126	0.000004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0025	0.0029	0.0004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00093	0.00092	0.000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1462861)											
WP2412814-003	SW-08A	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00098	0.00096	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1462862)											
WP2412814-003	SW-08A	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1456138)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1456141)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1457177)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	# 1.0	----
Physical Tests (QCLot: 1457179)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1460513)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1455970)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1455971)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1455972)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1455973)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1455976)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1455977)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1455978)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1455979)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1456030)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1456949)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1460936)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1460937)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1460938)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1457093)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1457207)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1462301)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1462302)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1462303)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	# 0.0058	B
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	# 0.0080	B
Manganese, total	7439-96-5	E420	0.0001	mg/L	# 0.00025	B
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1462303) - continued						
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	# 0.00053	B
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1457224)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1458145)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1458145) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1458146)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1458147)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1462860)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1462860) - continued						
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1462861)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1462862)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1462862) - continued						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1456138)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	90.3	85.0	115	----
Physical Tests (QCLot: 1456141)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	89.8	85.0	115	----
Physical Tests (QCLot: 1457177)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1457178)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1457179)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1460513)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1455970)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1455971)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1455972)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1455973)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1455976)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1455977)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1455978)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1455979)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1456030)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.8	85.0	115	----
Anions and Nutrients (QCLot: 1456949)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	97.9	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1460936)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	97.0	80.0	120	----
Cyanides (QCLot: 1460937)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.7	80.0	120	----
Cyanides (QCLot: 1460938)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.1	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1457093)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.3	80.0	120	----
Total Metals (QCLot: 1457207)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.4	80.0	120	----
Total Metals (QCLot: 1462301)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Total Metals (QCLot: 1462302)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	113	80.0	120	----
Total Metals (QCLot: 1462303)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	106	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	106	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	105	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	112	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	118	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	109	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1462303) - continued									
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	113	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	99.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.6	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	106	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	98.4	80.0	120	----
Dissolved Metals (QCLot: 1458145)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	98.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.0	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.9	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	97.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	96.8	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.4	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.9	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1458145) - continued									
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.9	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	95.6	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	92.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	97.5	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	100.0	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.3	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.8	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	95.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.0	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.7	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	95.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	94.0	80.0	120	----
Dissolved Metals (QCLot: 1458146)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Dissolved Metals (QCLot: 1462860)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	95.0	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.5	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	95.0	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1462860) - continued									
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	97.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.1	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.1	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	99.1	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	97.7	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	92.8	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	94.7	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	91.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	92.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	98.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	91.9	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.5	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	98.2	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	93.1	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	100.0	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.4	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	95.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	----
Dissolved Metals (QCLot: 1462861)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1455976)										
WP2412814-002	SW-15	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1455977)										
WP2412814-002	SW-15	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1455978)										
WP2412814-002	SW-15	Nitrite (as N)	14797-65-0	E235.NO2-L	0.509 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1455979)										
WP2412814-002	SW-15	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1456030)										
WP2412771-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1456949)										
WP2412814-002	SW-15	Phosphorus, total	7723-14-0	E372-U	0.242 mg/L	0.25 mg/L	97.0	70.0	130	----
Cyanides (QCLot: 1460936)										
WP2412814-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.118 mg/L	0.125 mg/L	94.7	75.0	125	----
Cyanides (QCLot: 1460937)										
WP2412814-001	SW-08	Cyanide, free	----	E339-L	0.119 mg/L	0.125 mg/L	95.3	75.0	125	----
Cyanides (QCLot: 1460938)										
WP2412814-001	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	10.7 mg/L	12.5 mg/L	85.9	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1457093)										
WP2412814-002	SW-15	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1457207)										
WP2412774-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000965 mg/L	0 mg/L	96.5	70.0	130	----
Total Metals (QCLot: 1462301)										
WP2412615-009	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
Total Metals (QCLot: 1462302)										
WP2412615-009	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	10.5 mg/L	10 mg/L	105	70.0	130	----
Total Metals (QCLot: 1462303)										
WP2412615-009	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0428 mg/L	0.04 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1462303) - continued										
WP2412615-009	Anonymous	Bismuth, total	7440-69-9	E420	0.00993 mg/L	0.01 mg/L	99.3	70.0	130	----
		Boron, total	7440-42-8	E420	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00418 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, total	7440-50-8	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, total	7439-89-6	E420	2.04 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.5 mg/L	10 mg/L	105	70.0	130	----
		Potassium, total	7440-09-7	E420	4.42 mg/L	4 mg/L	111	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, total	7440-21-3	E420	9.92 mg/L	10 mg/L	99.2	70.0	130	----
		Silver, total	7440-22-4	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.0 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00384 mg/L	0.004 mg/L	96.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Tin, total	7440-31-5	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0402 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0193 mg/L	0.02 mg/L	96.5	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00392 mg/L	0.004 mg/L	98.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.418 mg/L	0.4 mg/L	104	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1457224)										
WP2412801-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000900 mg/L	0 mg/L	90.0	70.0	130	----
Dissolved Metals (QCLot: 1458145)										
WP2412267-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.237 mg/L	0.2 mg/L	118	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0198 mg/L	0.02 mg/L	99.3	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00874 mg/L	0.01 mg/L	87.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1458145) - continued										
WP2412267-001	Anonymous	Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00364 mg/L	0.004 mg/L	90.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0422 mg/L	0.04 mg/L	105	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0191 mg/L	0.02 mg/L	95.6	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0175 mg/L	0.02 mg/L	87.3	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.06 mg/L	2 mg/L	103	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0177 mg/L	0.02 mg/L	88.5	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	ND mg/L	----	ND	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0362 mg/L	0.04 mg/L	90.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	12.7 mg/L	10 mg/L	127	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0378 mg/L	0.04 mg/L	94.4	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	11.3 mg/L	10 mg/L	113	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00371 mg/L	0.004 mg/L	92.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00365 mg/L	0.004 mg/L	91.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0195 mg/L	0.02 mg/L	97.3	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0462 mg/L	0.04 mg/L	116	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00380 mg/L	0.004 mg/L	95.1	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.363 mg/L	0.4 mg/L	90.7	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0464 mg/L	0.04 mg/L	116	70.0	130	----
Dissolved Metals (QCLot: 1462860)										
WP2412814-003	SW-08A	Aluminum, dissolved	7429-90-5	E421	ND mg/L	----	ND	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00421 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0100 mg/L	0.01 mg/L	100	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1462860) - continued										
WP2412814-003	SW-08A	Chromium, dissolved	7440-47-3	E421	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.07 mg/L	2 mg/L	104	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.04 mg/L	4 mg/L	101	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0430 mg/L	0.04 mg/L	108	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.56 mg/L	10 mg/L	95.6	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00406 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.8 mg/L	20 mg/L	109	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0217 mg/L	0.02 mg/L	109	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.418 mg/L	0.4 mg/L	104	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----
Dissolved Metals (QCLot: 1462861)										
WP2412814-003	SW-08A	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1462862)										
WP2412814-003	SW-08A	Phosphorus, dissolved	7723-14-0	E421.P-L	10.8 mg/L	10 mg/L	108	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] If received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
1	SW-08	21-May-24	15:00	Water		X			7.65	14.3	57.9
2	SW-15	21-May-24	13:50	Water			X		7.23	13.7	59.1
3	SW-08a	21-May-24	13:25	Water		X			6.25	9.93	47
4	SW-TR	21-May-24	12:35	Water		X			4.43	14.43	173
5	SW-10	21-May-24	10:50	Water		X			7.33	13.4	68.1
6	SW-09	21-May-24	11:45	Water			X		7.36	13.9	58.3
7	DUP-02	21-May-24	13:50	Water		X			7.23	13.7	59.1
8	BLANK-02	21-May-24	14:00	Water		X			X	X	X

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	May 22 2024	Time: 9:00	Received by:	Date: MAY 23 2024	Time: 9:00	Received by:	Time:

11.5

Environmental Division
Winnipeg
Work Order Reference
WP2412814

Telephone : +1 204 255 9720

Sample Intake					
Client:	Great Bear				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	8x30, 8x125	Yellow/Black		8x40	
Purple/White	6x30	Light blue/White			
Warm red/White	6x125	Orange/Black			
Dark Green/White	8x60	Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following: Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2413138**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 27-May-2024 09:50
PO	: PPR-022-3	Date Analysis Commenced	: 27-May-2024
C-O-C number	: ----	Issue Date	: 03-Jun-2024 11:46
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water (MISA)**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-01	SW-17	SW-18	SW-GL02
					Client sampling date / time	23-May-2024 11:05	23-May-2024 10:35	23-May-2024 09:55	23-May-2024 09:25	23-May-2024 08:55
						WP2413138-001	WP2413138-002	WP2413138-003	WP2413138-004	WP2413138-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.54	5.54	5.07	5.08	5.99
Temperature, field	----	EF001/WP	0.10	°C		10.1	7.71	8.08	5.96	6.00
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	5.1	8.1	12.4	3.2
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.1	9.0	5.2	6.3	19.3
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.1	9.0	5.2	6.3	19.3
Conductivity	----	E100/WP	1.0	µS/cm		68.1	34.6	109	46.3	86.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		38.6	20.6	13.4	17.9	30.7
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		37.7	20.1	13.7	14.9	31.0
pH	----	E108/WP	0.10	pH units		7.49	6.40	5.76	5.75	6.99
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		84.7	79.9	126	122	128
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		7.0	2.8	<1.0	<1.0	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0275	0.0180	0.0107	0.0136	0.0087
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.29	0.12	25.2	3.84	11.6
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0757	0.0493	<0.0050	<0.0050	0.0434
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0757	0.0493	<0.0051	<0.0051	0.0434
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0376	0.0242	0.0267	0.0281	0.0221
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.92	1.42	1.56	1.49	1.18
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0014	0.0013	0.0019	0.0019
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0014	0.0013	0.0021	<0.0010

Analytical Results

Sub-Matrix: **Water (MISA)**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-01	SW-17	SW-18	SW-GL02
					Client sampling date / time	23-May-2024 11:05	23-May-2024 10:35	23-May-2024 09:55	23-May-2024 09:25	23-May-2024 08:55
						WP2413138-001	WP2413138-002	WP2413138-003	WP2413138-004	WP2413138-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0013	0.0012	0.0016	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		24.5	45.8	41.3	52.4	38.5
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.387	0.380	0.748	1.31	0.254
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00016	0.00023	0.00034	0.00014
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00195	0.00396	0.00324	0.00467	0.00254
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0109	0.00619	0.0103	0.0135	0.00796
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000020	0.000020	0.000051	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000050	0.0000080	0.0000092	0.0000173	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.1	5.60	3.64	4.23	8.90
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000029	<0.000010	0.000016	<0.000010	0.000016
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00090	0.00065	0.00137	0.00192	0.00084
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00090	0.00065	0.00137	0.00192	0.00084
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00019	0.00023	0.00024	0.00060	0.00020
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00133	0.00088	0.00146	0.00370	0.00149
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.606	0.515	0.776	0.832	0.782
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000156	0.000206	0.000082	0.000381	0.000073
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	<0.0010	<0.0010	<0.0010	0.0013
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.04	1.48	1.11	1.05	2.12
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0235	0.0163	0.0111	0.00787	0.0143
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000060	0.0000256	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000145	0.000080	0.000060	<0.000050	0.000165
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00104	0.00079	0.00106	0.00153	0.00085
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.04	0.155	0.332	0.500	0.494
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00205	0.00058	0.00214	0.00256	0.00151

Analytical Results

Sub-Matrix: **Water (MISA)**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-01	SW-17	SW-18	SW-GL02
					Client sampling date / time	23-May-2024 11:05	23-May-2024 10:35	23-May-2024 09:55	23-May-2024 09:25	23-May-2024 08:55
						WP2413138-001	WP2413138-002	WP2413138-003	WP2413138-004	WP2413138-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000126	0.000153	0.000148	0.000234	0.000133
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.94	1.93	2.30	6.07	4.29
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.38	1.12	3.04	8.36	7.16
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0212	0.0142	0.0187	0.0239	0.0248
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	0.65	0.56	0.78	0.51
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	<0.00020	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000021	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00010	0.00011	0.00022	0.00106	0.00018
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0143	0.00437	0.00830	0.0114	0.00542
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000170	0.000076	0.000094	0.000371	0.000156
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00124	0.00108	0.00192	0.00120	0.00080
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0044	0.0040	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00044	0.00037	0.00051	0.00113	0.00048
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.128	0.368	0.712	1.09	0.222
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	0.00014	0.00023	0.00030	0.00014
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00178	0.00378	0.00334	0.00420	0.00260
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00900	0.00592	0.00993	0.0136	0.00795
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	0.000021	0.000031	0.000054	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	0.0000087	0.0000080	0.0000161	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.6	5.78	3.65	5.10	9.25
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000013	<0.000010	0.000015
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00043	0.00064	0.00123	0.00173	0.00070
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00064	0.00123	0.00173	0.00070
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00020	0.00022	0.00052	0.00017

Analytical Results

Sub-Matrix: **Water (MISA)**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-01	SW-17	SW-18	SW-GL02
					Client sampling date / time	23-May-2024 11:05	23-May-2024 10:35	23-May-2024 09:55	23-May-2024 09:25	23-May-2024 08:55
						WP2413138-001	WP2413138-002	WP2413138-003	WP2413138-004	WP2413138-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00098	0.00082	0.00130	0.00273	0.00137
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.327	0.439	0.691	0.782	0.651
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000076	0.000170	0.000076	0.000226	0.000063
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0011	0.0011	<0.0010	0.0015
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.95	1.49	1.05	1.25	1.85
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0176	0.0156	0.0102	0.00877	0.0127
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000057	0.0000208	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000164	0.000067	0.000064	<0.000050	0.000168
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00073	0.00078	0.00097	0.00138	0.00078
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.04	0.164	0.300	0.428	0.487
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00148	0.00064	0.00192	0.00212	0.00146
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000090	<0.000050	0.000196	0.000256	0.000201
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.45	1.91	2.26	5.68	4.15
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000017	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.41	1.08	1.54	3.59	7.21
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0241	0.0153	0.0188	0.0244	0.0265
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.51	0.76	<0.50	0.53	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	<0.00020	<0.00020	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000017	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00011	0.00014	0.00025	0.00098	0.00020
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00345	0.00372	0.00774	0.00920	0.00416
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000164	0.000078	0.000094	0.000372	0.000164
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00065	0.00086	0.00165	0.00149	0.00058
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0021	0.0040	0.0019	0.0012
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00046	0.00049	0.00064	0.00118	0.00058
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (MISA) (Matrix: Water)					Client sample ID	SW-04	SW-01	SW-17	SW-18	SW-GL02
					Client sampling date / time	23-May-2024 11:05	23-May-2024 10:35	23-May-2024 09:55	23-May-2024 09:25	23-May-2024 08:55
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2413138-001	WP2413138-002	WP2413138-003	WP2413138-004	WP2413138-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2413138**	Page	: 1 of 25
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 27-May-2024 09:50
PO	: PPR-022-3	Issue Date	: 03-Jun-2024 11:58
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-MRG3-1467725 002	----	Selenium, dissolved	7782-49-2	E421	77.7 % MES	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-17	E298	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-18	E298	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL02	E298	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.Cl-L	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.Cl-L	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-17	E235.Cl-L	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-18	E235.Cl-L	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL02	E235.Cl-L	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO3-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.NO3-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-17	E235.NO3-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-18	E235.NO3-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL02	E235.NO3-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO2-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.NO2-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-17	E235.NO2-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-18	E235.NO2-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL02	E235.NO2-L	23-May-2024	27-May-2024	7 days	4 days	✓	27-May-2024	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-01	E235.SO4	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-04	E235.SO4	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-17	E235.SO4	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-18	E235.SO4	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL02	E235.SO4	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	23-May-2024	27-May-2024	28 days	4 days	✓	28-May-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	23-May-2024	27-May-2024	28 days	4 days	✓	28-May-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-17	E372-U	23-May-2024	27-May-2024	28 days	4 days	✓	28-May-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-18	E372-U	23-May-2024	27-May-2024	28 days	4 days	✓	28-May-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL02	E372-U	23-May-2024	27-May-2024	28 days	4 days	✓	28-May-2024	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E339-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E339-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-17	E339-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-18	E339-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E333-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-18	E333-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E336-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-18	E336-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E336-L	23-May-2024	29-May-2024	14 days	6 days	✓	29-May-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-17	E421.Cr-L	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-18	E421.Cr-L	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.Cr-L	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-01	E509	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-04	E509	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-17	E509	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-18	E509	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL02	E509	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-17	E421	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-18	E421	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL02	E421	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-17	E421.P-L	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-18	E421.P-L	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.P-L	23-May-2024	30-May-2024	180 days	7 days	✓	30-May-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	23-May-2024	----	----	----		27-May-2024	4 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	23-May-2024	----	----	----		27-May-2024	4 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-17	EF001	23-May-2024	----	----	----		27-May-2024	4 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-18	EF001	23-May-2024	----	----	----		27-May-2024	4 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL02	EF001	23-May-2024	----	----	----		27-May-2024	4 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	23-May-2024	28-May-2024	28 days	5 days	✓	28-May-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-04	E358-L	23-May-2024	28-May-2024	28 days	5 days	✓	28-May-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-17	E358-L	23-May-2024	28-May-2024	28 days	5 days	✓	28-May-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-18	E358-L	23-May-2024	28-May-2024	28 days	5 days	✓	28-May-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL02	E358-L	23-May-2024	28-May-2024	28 days	5 days	✓	28-May-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	23-May-2024	29-May-2024	14 days	6 days	✓	31-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-04	E283	23-May-2024	29-May-2024	14 days	6 days	✓	31-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-17	E283	23-May-2024	29-May-2024	14 days	6 days	✓	31-May-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-18	E283	23-May-2024	29-May-2024	14 days	6 days	✓	31-May-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-GL02	E283	23-May-2024	29-May-2024	14 days	6 days	✓	31-May-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-17	E290	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-18	E290	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL02	E290	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-17	E100	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-18	E100	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL02	E100	23-May-2024	27-May-2024	28 days	4 days	✓	27-May-2024	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-17	E108	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-18	E108	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL02	E108	23-May-2024	27-May-2024	14 days	4 days	✓	27-May-2024	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-17	E162-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-18	E162-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL02	E162-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-17	E160-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-18	E160-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL02	E160-L	23-May-2024	----	----	----		28-May-2024	4 days	5 days	× EHT
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-17	E420.Cr-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-18	E420.Cr-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-17	E508	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-18	E508	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL02	E508	23-May-2024	29-May-2024	28 days	6 days	✓	29-May-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-17	E420	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-18	E420	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-17	E420.P-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-18	E420.P-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL02	E420.P-L	23-May-2024	29-May-2024	180 days	6 days	✓	29-May-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1465485	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1462100	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1460966	0	20	0.0	5.0	✗
Chloride in Water by IC (Low Level)	E235.Cl-L	1461156	0	5	0.0	5.0	✗
Conductivity in Water	E100	1462099	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1464671	0	8	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1464336	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1464670	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1462532	1	8	12.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1464672	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1465102	2	18	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1461154	0	8	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1461155	0	8	0.0	5.0	✗
pH by Meter	E108	1462098	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1461153	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1461178	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1464321	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1465103	2	19	10.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1464178	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1464323	0	15	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1461913	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1464322	0	5	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1464707	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1465101	2	18	11.1	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1465485	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1462100	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1460966	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1461156	1	5	20.0	5.0	✓
Conductivity in Water	E100	1462099	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1464671	2	8	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1464336	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1464670	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1462532	1	8	12.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1464672	2	19	10.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1465102	2	18	11.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1461154	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1461155	1	8	12.5	5.0	✓
pH by Meter	E108	1462098	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1461153	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1461178	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1464321	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1465103	2	19	10.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1464178	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1464323	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1461913	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1464322	1	5	20.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1464707	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1465101	2	18	11.1	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1465485	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1462100	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1460966	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1461156	1	5	20.0	5.0	✓
Conductivity in Water	E100	1462099	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1464671	2	8	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1464336	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1464670	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1462532	1	8	12.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1464672	2	19	10.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1465102	2	18	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1461154	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1461155	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1461153	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1461178	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1464321	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1465103	2	19	10.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1464178	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1464323	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1461913	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1464322	1	5	20.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1464707	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1465101	2	18	11.1	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1460966	0	20	0.0	5.0	×

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1461156	0	5	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1464671	0	8	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1464336	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1464670	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1462532	1	8	12.5	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1464672	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1465102	2	18	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1461154	0	8	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1461155	0	8	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1461153	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1464321	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1465103	2	19	10.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1464178	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1464323	0	15	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1461913	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1464322	0	5	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1465101	2	18	11.1	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2413138**	Page	: 1 of 21
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 27-May-2024 09:50
PO	: PPR-022-3	Date Analysis Commenced	: 27-May-2024
C-O-C number	: ----	Issue Date	: 03-Jun-2024 11:47
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1461178)											
WP2413054-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	924	930	0.755%	20%	----
Physical Tests (QC Lot: 1462098)											
WP2413138-005	SW-GL02	pH	----	E108	0.10	pH units	6.99	6.95	0.574%	4%	----
Physical Tests (QC Lot: 1462099)											
WP2413138-005	SW-GL02	Conductivity	----	E100	1.0	µS/cm	86.0	86.4	0.464%	10%	----
Physical Tests (QC Lot: 1462100)											
WP2413138-005	SW-GL02	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	19.3	19.3	0.00%	20%	----
Physical Tests (QC Lot: 1464707)											
WP2413138-001	SW-04	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	7.0	7.3	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1465485)											
WP2413138-001	SW-04	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1461153)											
WP2413125-004	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	1.44	1.44	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1461913)											
WP2413066-015	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.146	0.150	2.48%	20%	----
Cyanides (QC Lot: 1465101)											
WP2413138-001	SW-04	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1465102)											
WP2413138-001	SW-04	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1465103)											
WP2413138-001	SW-04	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1465107)											
WP2413138-005	SW-GL02	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	0.0011	0.00008	Diff <2x LOR	----
Cyanides (QC Lot: 1465108)											
WP2413138-005	SW-GL02	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	0.0011	0.00006	Diff <2x LOR	----
Cyanides (QC Lot: 1465109)											
WP2413138-005	SW-GL02	Cyanide, free	----	E339-L	0.0010	mg/L	0.0019	0.0018	0.0001	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1462532)											
WP2413138-001	SW-04	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	24.5	24.9	1.60%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1464178)											
WP2413102-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1464336)											
WP2412991-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	0.0000051	0.00000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1464670)											
WP2413066-025	Anonymous	Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00979	0.00994	1.50%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.327	0.321	1.89%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000048	0.000045	0.000002	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.155	0.169	8.71%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	85.0	88.4	3.90%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00571	0.00555	2.77%	20%	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00070	0.00070	0.000006	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	7.41	7.21	2.65%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0189	0.0217	13.5%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	22.3	23.4	4.95%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.110	0.108	2.26%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000072	0.000110	0.000038	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00769	0.00741	3.74%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	1.62	1.63	0.417%	20%	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	3.34	3.72	10.7%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00136	0.00159	0.00023	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000149	0.000121	0.000028	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	20.2	19.7	2.46%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.000016	0.000014	0.000001	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	282	289	2.59%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1464670) - continued											
WP2413066-025	Anonymous	Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.0196	0.0188	3.90%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.0106	0.0104	1.92%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0015	<0.0010	0.0005	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00872	0.00886	1.70%	20%	----
Dissolved Metals (QC Lot: 1467726)											
WP2413154-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	0.069	0.069	0.0004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1467727)											
WP2413154-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0137	0.0137	0.452%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00037	0.00036	0.00002	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.0157	0.0158	0.288%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0300	0.0301	0.227%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	73.7	73.4	0.448%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00123	0.00123	0.129%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00023	0.00022	0.000009	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.773	0.784	1.41%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	39.1	39.4	0.581%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0723	0.0722	0.124%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000328	0.000321	0.000007	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00733	0.00723	1.39%	20%	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.069	0.069	0.0004	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	4.41	4.45	0.837%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00370	0.00387	4.32%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000155	0.000058	0.000097	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.09	6.07	0.418%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1467727) - continued											
WP2413154-001	Anonymous	Sodium, dissolved	7440-23-5	E421	0.050	mg/L	16.7	16.3	2.20%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.248	0.255	2.91%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	9.39	9.50	1.20%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00058	0.00056	0.00002	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00927	0.00930	0.328%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00153	0.00148	0.00004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0011	<0.0010	0.00007	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1461178)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1462099)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1462100)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1464707)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1465485)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1460966)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1461153)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1461154)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1461155)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1461156)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1461913)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1465101)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1465102)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1465103)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1465107)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1465108)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1465109)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1465109) - continued						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1462532)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1464178)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1464321)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1464322)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1464323)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1464323) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1464336)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1464670)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1464670) - continued						
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1464671)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1464672)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1467725)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1467726)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1467727)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1467727) - continued						
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1461178)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.4	85.0	115	----
Physical Tests (QCLot: 1462098)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1462099)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	97.2	90.0	110	----
Physical Tests (QCLot: 1462100)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.8	85.0	115	----
Physical Tests (QCLot: 1464707)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	92.7	85.0	115	----
Physical Tests (QCLot: 1465485)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	97.0	85.0	115	----
Anions and Nutrients (QCLot: 1460966)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	96.0	85.0	115	----
Anions and Nutrients (QCLot: 1461153)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1461154)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1461155)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.1	90.0	110	----
Anions and Nutrients (QCLot: 1461156)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1461913)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.3	80.0	120	----
Cyanides (QCLot: 1465101)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	95.7	80.0	120	----
Cyanides (QCLot: 1465102)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.3	80.0	120	----
Cyanides (QCLot: 1465103)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	83.8	80.0	120	----
Cyanides (QCLot: 1465107)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1465107) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	84.2	80.0	120	----
Cyanides (QCLot: 1465108)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	94.9	80.0	120	----
Cyanides (QCLot: 1465109)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1462532)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	108	80.0	120	----
Total Metals (QCLot: 1464178)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.8	80.0	120	----
Total Metals (QCLot: 1464321)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	96.1	80.0	120	----
Total Metals (QCLot: 1464322)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	97.5	80.0	120	----
Total Metals (QCLot: 1464323)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	95.4	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.7	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	95.3	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	87.7	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.3	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	96.0	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	98.0	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	96.1	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	95.4	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.1	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	86.6	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	94.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	94.1	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	96.2	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	94.3	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1464323) - continued									
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	97.5	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	93.5	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	92.4	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	94.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	89.5	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	92.3	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.3	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	88.9	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	93.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.9	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	93.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.4	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.4	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.6	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	93.9	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.1	80.0	120	----
Dissolved Metals (QCLot: 1464670)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.5	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.4	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.7	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.2	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.0	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	96.5	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.3	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.8	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1464670) - continued									
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.9	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.8	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	97.2	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.3	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	97.8	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.4	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.6	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	98.4	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.9	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	97.2	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.8	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	94.2	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.6	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	93.4	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.3	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.9	80.0	120	----
Dissolved Metals (QCLot: 1464671)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.8	80.0	120	----
Dissolved Metals (QCLot: 1467725)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	89.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	89.6	80.0	120	----
Dissolved Metals (QCLot: 1467727)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	93.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	94.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	92.7	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1467727) - continued									
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	92.8	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	89.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	89.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	88.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	83.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	89.0	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	91.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	88.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	89.6	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	89.6	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	# 77.7	80.0	120	MES
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	94.7	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	87.7	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	82.5	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	92.5	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	87.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	94.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	92.2	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	88.2	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.6	80.0	120	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1461153)										
WP2413125-004	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.6 mg/L	100 mg/L	98.6	75.0	125	----
Anions and Nutrients (QCLot: 1461913)										
WP2413066-016	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.242 mg/L	0.25 mg/L	96.9	70.0	130	----
Cyanides (QCLot: 1465101)										
WP2413138-001	SW-04	Cyanide, weak acid dissociable	----	E336-L	0.118 mg/L	0.125 mg/L	94.2	75.0	125	----
Cyanides (QCLot: 1465102)										
WP2413138-001	SW-04	Cyanide, free	----	E339-L	0.119 mg/L	0.125 mg/L	95.3	75.0	125	----
Cyanides (QCLot: 1465103)										
WP2413138-001	SW-04	Cyanide, strong acid dissociable (Total)	----	E333-L	0.193 mg/L	0.25 mg/L	77.2	75.0	125	----
Cyanides (QCLot: 1465107)										
WP2413138-005	SW-GL02	Cyanide, strong acid dissociable (Total)	----	E333-L	0.190 mg/L	0.25 mg/L	75.9	75.0	125	----
Cyanides (QCLot: 1465108)										
WP2413138-005	SW-GL02	Cyanide, weak acid dissociable	----	E336-L	0.117 mg/L	0.125 mg/L	93.3	75.0	125	----
Cyanides (QCLot: 1465109)										
WP2413138-005	SW-GL02	Cyanide, free	----	E339-L	0.119 mg/L	0.125 mg/L	94.9	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1462532)										
WP2413138-002	SW-01	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1464178)										
WP2413138-001	SW-04	Mercury, total	7439-97-6	E508	0.0000992 mg/L	0 mg/L	99.2	70.0	130	----
Dissolved Metals (QCLot: 1464336)										
WP2412991-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000954 mg/L	0 mg/L	95.4	70.0	130	----
Dissolved Metals (QCLot: 1464670)										
WP2413066-025	Anonymous	Antimony, dissolved	7440-36-0	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00971 mg/L	0.01 mg/L	97.1	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00394 mg/L	0.004 mg/L	98.4	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1464670) - continued										
WP2413066-025	Anonymous	Copper, dissolved	7440-50-8	E421	0.0187 mg/L	0.02 mg/L	93.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	ND mg/L	----	ND	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0181 mg/L	0.02 mg/L	90.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0860 mg/L	0.1 mg/L	86.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0378 mg/L	0.04 mg/L	94.4	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.9 mg/L	10 mg/L	119	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.48 mg/L	4 mg/L	112	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	ND mg/L	----	ND	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00287 mg/L	0.004 mg/L	71.8	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00371 mg/L	0.004 mg/L	92.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.388 mg/L	0.4 mg/L	97.0	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
Dissolved Metals (QCLot: 1467726)										
WP2413154-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.4 mg/L	10 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1467727)										
WP2413154-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.195 mg/L	0.2 mg/L	97.3	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0191 mg/L	0.02 mg/L	95.5	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00942 mg/L	0.01 mg/L	94.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00399 mg/L	0.004 mg/L	99.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0178 mg/L	0.02 mg/L	89.1	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.83 mg/L	2 mg/L	91.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.108 mg/L	0.1 mg/L	108	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1467727) - continued										
WP2413154-001	Anonymous	Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0363 mg/L	0.04 mg/L	90.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0330 mg/L	0.04 mg/L	82.4	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.23 mg/L	10 mg/L	92.3	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00308 mg/L	0.004 mg/L	77.0	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.0 mg/L	20 mg/L	99.9	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0360 mg/L	0.04 mg/L	90.0	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00384 mg/L	0.004 mg/L	96.1	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0372 mg/L	0.04 mg/L	93.1	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	----	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0996 mg/L	0.1 mg/L	99.6	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.372 mg/L	0.4 mg/L	92.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0413 mg/L	0.04 mg/L	103	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-04	23-May-24	11:05	Water		X			6.54	10.14	0.041
	SW-01	23-May-24	10:35	Water		X			5.54	7.71	0.014
	SW-17	23-May-24	9:55	Water			X		5.07	8.08	0.059
	SW-18	23-May-24	9:25	Water			X		5.08	5.96	0.023
	SW-GL02	23-May-24	8:55	Water			X		5.99	6	0.066

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: AP	MAY 23 2024	Time: 9:00	Received by:	Date: MAY 27 24	Time: 950	Received by:	Time:

15.1°

Environmental Division
Winnipeg
Work Order Reference
WP2413138

Telephone : +1 204 255 9720

Sample Intake						
Client:	Great Bear					
Cheque Enclosed with CoC		Yes		No		
Priority/Emergency Required (circle one)		Yes		No		
Time Sensitive Hold Time (circle one)		Yes		No		
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White	5X50, 5X250	Yellow/Black	10X40			
Purple/White	10X100	Light blue/White				
Warm red/White	10X125	Orange/Black				
Dark Green/White	5X100	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

CERTIFICATE OF ANALYSIS

Work Order	: **WP2413300**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 28-May-2024 10:00
PO	: PPR-022-3	Date Analysis Commenced	: 28-May-2024
C-O-C number	: ----	Issue Date	: 11-Jun-2024 09:24
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Sample(s) Met-T -007: Sample Received Unpreserved. Results may be biased low for indicated parameter(s).

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-14	SW-14-B	SW-12-B	SW-03	DUP-03
					Client sampling date / time	26-May-2024 10:05	26-May-2024 10:50	26-May-2024 11:35	26-May-2024 14:00	26-May-2024 14:10
						WP2413300-001	WP2413300-002	WP2413300-003	WP2413300-004	WP2413300-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.74	7.00	6.31	6.93	6.93
Temperature, field	----	EF001/WP	0.10	°C		11.0	11.0	7.90	8.60	8.60
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	2.8	2.6
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		34.0	34.0	26.7	43.3	44.7
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		34.0	34.0	26.7	43.3	44.7
Conductivity	----	E100/WP	1.0	µS/cm		83.2	83.4	63.6	103	105
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		36.6	38.6	39.1	57.6	57.5
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		37.9	38.1	40.6	62.4	66.4
pH	----	E108/WP	0.10	pH units		7.52	7.51	6.77	7.09	7.11
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		77.7	85.4	81.3	194	194
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.3	14.8	<1.0	43.5	23.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	<0.0050	0.0091	0.0212	0.0151
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		4.27	4.21	0.12	1.09	1.08
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	0.0135	0.635	0.661
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	0.0135	0.636	0.662
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0011	0.0015
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0328	0.0288	0.0161	0.123	0.128
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.59	0.57	1.22	1.03	1.07
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0014	0.0025	0.0026
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0016	0.0030	0.0028

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-14	SW-14-B	SW-12-B	SW-03	DUP-03
					Client sampling date / time	26-May-2024 10:05	26-May-2024 10:50	26-May-2024 11:35	26-May-2024 14:00	26-May-2024 14:10
						WP2413300-001	WP2413300-002	WP2413300-003	WP2413300-004	WP2413300-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0015	0.0025	0.0029
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		20.6	19.4	42.6	61.3	63.3
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0948	0.0955	0.154	2.27	2.35
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00011	0.00019	0.00020
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00156	0.00157	0.00271	0.00453	0.00478
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00904	0.00920	0.00683	0.0325	0.0344
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000112	0.000105
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	0.014	0.014
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000091	0.0000448	0.0000421
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.1	10.2	10.9	17.5	18.5
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	0.000162	0.000176
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00028	0.00034	0.00055	0.00395	0.00411
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00055	0.00395	0.00411
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00010	0.00099	0.00106
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00052	0.00052	0.00151	0.00434	0.00437
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.130	0.138	0.157	2.00	2.07
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000104	0.000112	<0.000050	0.000718	0.000742
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0024	0.0024	0.0018	0.0056	0.0057
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.07	3.06	3.24	4.53	4.91
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0110	0.0123	0.00299	0.0939	0.101
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000069	0.0000182	0.0000158
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000146	0.000149	0.000218	0.000348	0.000414
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00114	0.00480	0.00459
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.032	<0.030	0.108	0.129
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	0.108	0.129
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.00	0.998	0.427	4.75	4.69
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00109	0.00111	0.00065	0.00537	0.00567

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-14	SW-14-B	SW-12-B	SW-03	DUP-03
					Client sampling date / time	26-May-2024 10:05	26-May-2024 10:50	26-May-2024 11:35	26-May-2024 14:00	26-May-2024 14:10
						WP2413300-001	WP2413300-002	WP2413300-003	WP2413300-004	WP2413300-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000112	0.000068	0.000138	0.000210	0.000249
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.46	0.49	3.79	8.99	9.42
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000018	0.000019
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		3.26	3.24	1.68	1.89	2.27
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0246	0.0246	0.0249	0.0343	0.0376
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	0.75	0.75	0.94
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000022	0.000023
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00013	0.00050	0.00049
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00288	0.00275	0.00229	0.0854	0.0937
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000039	0.000040	0.000076	0.000333	0.000355
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00075	0.00493	0.00514
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	0.0086	0.0088
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	0.00053	0.00249	0.00224
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0344	0.0259	0.145	0.553	0.550
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00010	0.00018	0.00018
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00145	0.00143	0.00269	0.00428	0.00423
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00892	0.00939	0.00723	0.0211	0.0204
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000041	0.000045
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	0.012	0.011
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		Not Detected	<0.0000050	0.0000068	0.0000344	0.0000364
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.65	10.1	10.1	15.9	15.7
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00015	0.00015	0.00052	0.00150	0.00157
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00052	0.00150	0.00157
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00011	0.00057	0.00051

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-14	SW-14-B	SW-12-B	SW-03	DUP-03
					Client sampling date / time	26-May-2024 10:05	26-May-2024 10:50	26-May-2024 11:35	26-May-2024 14:00	26-May-2024 14:10
						WP2413300-001	WP2413300-002	WP2413300-003	WP2413300-004	WP2413300-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00047	0.00046	0.00160	0.00316	0.00317
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.054	0.072	0.150	0.585	0.574
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000115	0.000095
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0013	0.0013	<0.0010	0.0028	0.0027
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.03	3.24	3.38	4.35	4.44
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00054	0.0125	0.00265	0.0816	0.0787
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000064	0.0000133	0.0000117
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000147	0.000154	0.000187	0.000350	0.000351
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00115	0.00340	0.00341
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	0.049	0.042
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.926	0.965	0.394	4.12	4.06
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00104	0.00104	0.00070	0.00218	0.00221
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000082	0.000074	0.000120	0.000270	0.000309
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.307	0.225	3.40	5.09	5.17
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		3.23	3.30	1.69	1.78	1.77
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0251	0.0246	0.0239	0.0331	0.0327
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	0.59	0.62
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00014	0.00043	0.00044
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00082	0.00056	0.00228	0.00984	0.00926
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000039	0.000034	0.000088	0.000315	0.000329
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00072	0.00207	0.00204
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0013	0.0043	0.0041
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00054	0.00168	0.00168
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-14	SW-14-B	SW-12-B	SW-03	DUP-03
					Client sampling date / time	26-May-2024 10:05	26-May-2024 10:50	26-May-2024 11:35	26-May-2024 14:00	26-May-2024 14:10
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2413300-001	WP2413300-002	WP2413300-003	WP2413300-004	WP2413300-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	BLANK-03	TRAVEL BLANK	----	----	----
				Client sampling date / time	26-May-2024 14:00	26-May-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2413300-006	WP2413300-007	--------	--------	--------
					Result	Result	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	Not Detected	Not Detected	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	<0.50	<0.50	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	<0.50	<0.50	----	----	----
pH	----	E108/WP	0.10	pH units	5.32	5.38	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	5.2	3.4	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	<0.0050	<0.0050	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	Not Detected	Not Detected	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	<0.0020	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	<0.30	<0.30	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	0.86	<0.50	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	<0.0030	<0.0030	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BLANK-03	TRAVEL BLANK	----	----	----
					Client sampling date / time	26-May-2024 14:00	26-May-2024 00:00	----	----	----
						WP2413300-006	WP2413300-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		Not Detected	Not Detected	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	Not Detected	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		Not Detected	Not Detected	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		Not Detected	<0.00050	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		Not Detected	Not Detected	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		Not Detected	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		Not Detected	Not Detected	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		Not Detected	Not Detected	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		<0.10	<0.10	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		Not Detected	Not Detected	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK-03	TRAVEL BLANK	----	----	----
					Client sampling date / time	26-May-2024 14:00	26-May-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2413300-006	WP2413300-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		Not Detected	Not Detected	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	<0.00010	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		Not Detected	Not Detected	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		<0.0010	Not Detected	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	Not Detected	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	Not Detected	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		Not Detected	Not Detected	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	Not Detected	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		Not Detected	Not Detected	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		Not Detected	Not Detected	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		Not Detected	Not Detected	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	BLANK-03	TRAVEL BLANK	----	----	----
					Client sampling date / time	26-May-2024 14:00	26-May-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2413300-006	WP2413300-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	Not Detected	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		<0.050	Not Detected	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	<0.000050	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		<0.050	Not Detected	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		Not Detected	Not Detected	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		Not Detected	Not Detected	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		Not Detected	Not Detected	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	Not Detected	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		Not Detected	Not Detected	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Laboratory	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2413300**	Page	: 1 of 30
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 28-May-2024 10:00
PO	: PPR-022-3	Issue Date	: 11-Jun-2024 09:29
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Physical Tests	QC-MRG2-1464446 001	----	Alkalinity, total (as CaCO3)	----	E290	1.1 mg/L B	1 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Recoveries								
Total Metals	QC-MRG4-1472322 002	----	Lithium, total	7439-93-2	E420	124 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK-03	E298	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-03	E298	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-12-B	E298	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14	E298	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14-B	E298	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) TRAVEL BLANK	E298	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK-03	E235.Cl-L	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-03	E235.Cl-L	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.Cl-L	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-12-B	E235.Cl-L	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-14	E235.Cl-L	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-14-B	E235.Cl-L	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] TRAVEL BLANK	E235.Cl-L	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] BLANK-03	E235.NO3-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-03	E235.NO3-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO3-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-12-B	E235.NO3-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-14	E235.NO3-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-14-B	E235.NO3-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] TRAVEL BLANK	E235.NO3-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] BLANK-03	E235.NO2-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP-03	E235.NO2-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO2-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-12-B	E235.NO2-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-14	E235.NO2-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-14-B	E235.NO2-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] TRAVEL BLANK	E235.NO2-L	26-May-2024	28-May-2024	7 days	2 days	✓	28-May-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BLANK-03	E235.SO4	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP-03	E235.SO4	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-03	E235.SO4	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-12-B	E235.SO4	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-14	E235.SO4	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-14-B	E235.SO4	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] TRAVEL BLANK	E235.SO4	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK-03	E372-U	26-May-2024	28-May-2024	28 days	2 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-03	E372-U	26-May-2024	28-May-2024	28 days	2 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-03	E372-U	26-May-2024	28-May-2024	28 days	2 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-12-B	E372-U	26-May-2024	28-May-2024	28 days	2 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-14	E372-U	26-May-2024	28-May-2024	28 days	2 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-14-B	E372-U	26-May-2024	28-May-2024	28 days	2 days	✓	29-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) TRAVEL BLANK	E372-U	26-May-2024	28-May-2024	28 days	2 days	✓	29-May-2024	28 days	3 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK-03	E339-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-03	E339-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12-B	E339-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E339-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E339-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E339-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-03	E333-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-03	E333-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12-B	E333-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E333-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E333-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E333-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-03	E336-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-03	E336-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12-B	E336-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E336-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E336-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E336-L	26-May-2024	03-Jun-2024	14 days	8 days	✓	03-Jun-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-03	E421.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-03	E421.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-12-B	E421.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-14	E421.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-14-B	E421.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-12-B	E509	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-14	E509	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-14-B	E509	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) BLANK-03	E509	26-May-2024	31-May-2024	28 days	5 days	✓	31-May-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-03	E509	26-May-2024	31-May-2024	28 days	5 days	✓	31-May-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	26-May-2024	31-May-2024	28 days	5 days	✓	31-May-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) TRAVEL BLANK	E509	26-May-2024	31-May-2024	28 days	5 days	✓	31-May-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK-03	E421	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-03	E421	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-03	E421	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-12-B	E421	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-14	E421	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-14-B	E421	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
BLANK-03	E421.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DUP-03	E421.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-03	E421.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-12-B	E421.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-14	E421.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-14-B	E421.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-03	EF001	26-May-2024	----	----	----		31-May-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-03	EF001	26-May-2024	----	----	----		31-May-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-12-B	EF001	26-May-2024	----	----	----		31-May-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-14	EF001	26-May-2024	----	----	----		31-May-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-14-B	EF001	26-May-2024	----	----	----		31-May-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK-03	E358-L	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DUP-03	E358-L	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-03	E358-L	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-12-B	E358-L	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-14	E358-L	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-14-B	E358-L	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) TRAVEL BLANK	E358-L	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE BLANK-03	E283	26-May-2024	31-May-2024	14 days	5 days	✓	03-Jun-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP-03	E283	26-May-2024	31-May-2024	14 days	5 days	✓	03-Jun-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-03	E283	26-May-2024	31-May-2024	14 days	5 days	✓	03-Jun-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-12-B	E283	26-May-2024	31-May-2024	14 days	5 days	✓	03-Jun-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-14	E283	26-May-2024	31-May-2024	14 days	5 days	✓	03-Jun-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-14-B	E283	26-May-2024	31-May-2024	14 days	5 days	✓	03-Jun-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE TRAVEL BLANK	E283	26-May-2024	31-May-2024	14 days	5 days	✓	03-Jun-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-03	E290	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-03	E290	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-12-B	E290	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-14	E290	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-14-B	E290	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK-03	E290	26-May-2024	30-May-2024	14 days	4 days	✓	30-May-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] TRAVEL BLANK	E290	26-May-2024	30-May-2024	14 days	4 days	✓	30-May-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-03	E100	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-12-B	E100	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-14	E100	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-14-B	E100	26-May-2024	28-May-2024	28 days	2 days	✓	28-May-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK-03	E100	26-May-2024	30-May-2024	28 days	4 days	✓	30-May-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] TRAVEL BLANK	E100	26-May-2024	30-May-2024	28 days	4 days	✓	30-May-2024	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-03	E108	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-12-B	E108	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-14	E108	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-14-B	E108	26-May-2024	28-May-2024	14 days	2 days	✓	28-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK-03	E108	26-May-2024	30-May-2024	14 days	4 days	✓	30-May-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] TRAVEL BLANK	E108	26-May-2024	30-May-2024	14 days	4 days	✓	30-May-2024	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK-03	E162-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-03	E162-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-14	E162-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-14-B	E162-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] TRAVEL BLANK	E162-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-12-B	E162-L	26-May-2024	----	----	----		30-May-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK-03	E160-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-03	E160-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-12-B	E160-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14	E160-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14-B	E160-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] TRAVEL BLANK	E160-L	26-May-2024	----	----	----		29-May-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-03	E420.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-03	E420.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-12-B	E420.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14	E420.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14-B	E420.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.Cr-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-03	E508	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-03	E508	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-12-B	E508	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14	E508	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14-B	E508	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) TRAVEL BLANK	E508	26-May-2024	29-May-2024	28 days	3 days	✓	29-May-2024	28 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK-03	E420	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-03	E420	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-12-B	E420	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14	E420	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14-B	E420	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) TRAVEL BLANK	E420	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-03	E420.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-03	E420.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-12-B	E420.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14	E420.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14-B	E420.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.P-L	26-May-2024	03-Jun-2024	180 days	8 days	✓	03-Jun-2024	180 days	8 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1469277	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1464447	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1464459	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1463004	1	8	12.5	5.0	✓
Conductivity in Water	E100	1464446	2	11	18.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1472433	0	7	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1464336	2	39	5.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1472432	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1464659	2	35	5.7	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1472434	0	13	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1466957	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1463005	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1463006	1	8	12.5	5.0	✓
pH by Meter	E108	1464445	2	31	6.4	5.0	✓
Sulfate in Water by IC	E235.SO4	1463000	2	24	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1463239	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1472324	0	7	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1466958	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1464178	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1472322	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1463986	2	32	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1472323	0	9	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1463235	1	7	14.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1466956	1	7	14.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1469277	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1464447	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1464459	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1463004	2	8	25.0	5.0	✓
Conductivity in Water	E100	1464446	2	11	18.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1472433	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1464336	2	39	5.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1472432	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1464659	2	35	5.7	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1472434	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1466957	1	7	14.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1463005	2	8	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1463006	2	8	25.0	5.0	✓
pH by Meter	E108	1464445	2	31	6.4	5.0	✓
Sulfate in Water by IC	E235.SO4	1463000	2	24	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1463239	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1472324	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1466958	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1464178	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1472322	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1463986	2	32	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1472323	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1463235	1	7	14.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1466956	1	7	14.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1469277	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1464447	2	17	11.7	5.0	✓
Ammonia by Fluorescence	E298	1464459	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1463004	2	8	25.0	5.0	✓
Conductivity in Water	E100	1464446	2	11	18.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1472433	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1464336	2	39	5.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1472432	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1464659	2	35	5.7	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1472434	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1466957	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1463005	2	8	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1463006	2	8	25.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1463000	2	24	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1463239	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1472324	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1466958	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1464178	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1472322	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1463986	2	32	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1472323	1	9	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1463235	1	7	14.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1466956	1	7	14.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1464459	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1463004	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1472433	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1464336	2	39	5.1	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1472432	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1464659	2	35	5.7	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1472434	0	13	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1466957	1	7	14.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1463005	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1463006	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1463000	2	24	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1472324	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1466958	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1464178	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1472322	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1463986	2	32	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1472323	0	9	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1466956	1	7	14.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2413300**	Page	: 1 of 19
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 28-May-2024 10:00
PO	: PPR-022-3	Date Analysis Commenced	: 28-May-2024
C-O-C number	: ----	Issue Date	: 11-Jun-2024 09:24
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1463235)											
WP2413300-001	SW-14	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.3	5.0	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1463239)											
WP2413267-007	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	2380	2450	2.77%	20%	----
Physical Tests (QC Lot: 1464445)											
WP2413300-001	SW-14	pH	----	E108	0.10	pH units	7.52	7.48	0.533%	4%	----
Physical Tests (QC Lot: 1464446)											
WP2413300-001	SW-14	Conductivity	----	E100	1.0	µS/cm	83.2	83.6	0.480%	10%	----
Physical Tests (QC Lot: 1464447)											
WP2413300-001	SW-14	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	34.0	34.5	1.46%	20%	----
Physical Tests (QC Lot: 1469277)											
BF2400041-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1469451)											
WP2413778-001	Anonymous	pH	----	E108	0.10	pH units	7.47	7.44	0.402%	4%	----
Physical Tests (QC Lot: 1469452)											
WP2413778-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	3050	3070	0.654%	10%	----
Physical Tests (QC Lot: 1469453)											
WP2413778-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	34.9	34.1	2.32%	20%	----
Anions and Nutrients (QC Lot: 1463000)											
WP2413267-008	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	80.5	80.9	0.490%	20%	----
Anions and Nutrients (QC Lot: 1463016)											
WP2413300-003	SW-12-B	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	1.22	1.21	0.008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1463017)											
WP2413300-003	SW-12-B	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0135	0.0133	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1463018)											
WP2413300-003	SW-12-B	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1463019)											
WP2413300-003	SW-12-B	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.12	0.12	0.0010	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1463986)											
WP2413188-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.243	0.243	0.0741%	20%	----
Anions and Nutrients (QC Lot: 1464459)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1464459) - continued											
WP2413296-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0146	0.0157	0.0012	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1466287)											
WP2413499-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0209	0.0187	0.0021	Diff <2x LOR	----
Cyanides (QC Lot: 1466956)											
WP2413300-001	SW-14	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1466957)											
WP2413300-001	SW-14	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1466958)											
WP2413300-001	SW-14	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1464659)											
WP2413300-001	SW-14	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	20.6	20.9	1.68%	20%	----
Organic / Inorganic Carbon (QC Lot: 1466661)											
WP2413559-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	2.07	2.04	0.03	Diff <2x LOR	----
Total Metals (QC Lot: 1464178)											
WP2413102-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1472322)											
WP2412998-008	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00031	0.00029	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0579	0.0571	1.36%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.157	0.155	1.17%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	69.8	69.4	0.545%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000016	0.000015	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0168	0.0167	0.803%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000755	0.000769	1.76%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0227	0.0223	1.64%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	44.3	44.5	0.512%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1472322) - continued											
WP2412998-008	Anonymous	Manganese, total	7439-96-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000486	0.000488	0.000002	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00072	0.00071	0.00001	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	4.53	4.66	2.79%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00299	0.00286	4.41%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.70	5.67	0.595%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	13.8	13.8	0.368%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.225	0.227	0.852%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	9.70	10.3	5.95%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000082	0.000084	0.000002	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0084	0.0086	0.0002	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1464336)											
WP2412991-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	0.0000051	0.00000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1468663)											
WP2413300-004	SW-03	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000133	0.0000146	0.0000012	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1472432)											
WP2413269-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0171	0.0190	10.6%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00479	0.00473	1.28%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0130	0.0135	4.38%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.942	0.889	5.79%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1472432) - continued											
WP2413269-001	Anonymous	Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	307	296	3.52%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000058	0.000052	0.000006	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00064	0.00062	0.00002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.612	0.607	0.760%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000093	0.000074	0.000019	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.290	0.297	2.30%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	157	155	1.30%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0278	0.0274	1.65%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00281	0.00279	0.778%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00133	0.00135	0.00002	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	42.7	42.1	1.46%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0168	0.0166	1.56%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.61	5.82	3.79%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.500	mg/L	1290	1260	1.96%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	4.01	3.85	4.02%	20%	----
		Sulfur, dissolved	7704-34-9	E421	5.00	mg/L	301	306	1.67%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00076	0.00116	0.00040	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00120	0.00124	3.07%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0011	0.0011	0.00005	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1463235)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1463239)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1464446)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1464447)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	# 1.1	B
Physical Tests (QCLot: 1469277)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1469452)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1469453)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1463000)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1463004)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1463005)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1463006)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1463016)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1463017)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1463018)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1463019)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1463986)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1464459)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1466287)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1466956)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1466957)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1466958)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1464659)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1466661)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1464178)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1472322)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1472322) - continued						
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1472323)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1472324)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1464336)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1468663)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1472432)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1472432) - continued						
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1472433)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1472434)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1463235)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	87.1	85.0	115	----
Physical Tests (QCLot: 1463239)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.5	85.0	115	----
Physical Tests (QCLot: 1464445)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1464446)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.8	90.0	110	----
Physical Tests (QCLot: 1464447)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1469277)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1469451)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1469452)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1469453)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 1463000)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1463004)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1463005)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1463006)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1463016)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1463017)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 1463018)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1463019)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1463986)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	97.7	80.0	120	----
Anions and Nutrients (QCLot: 1464459)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.3	85.0	115	----
Anions and Nutrients (QCLot: 1466287)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.0	80.0	120	----
Cyanides (QCLot: 1466956)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	92.6	80.0	120	----
Cyanides (QCLot: 1466957)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	93.4	80.0	120	----
Cyanides (QCLot: 1466958)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	86.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1464659)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	110	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1466661)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	110	80.0	120	----
Total Metals (QCLot: 1464178)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.8	80.0	120	----
Total Metals (QCLot: 1472322)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.3	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	94.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	97.9	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	115	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	92.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	107	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	90.4	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	93.0	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	90.2	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	89.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	87.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1472322) - continued									
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	80.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	91.9	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	# 124	80.0	120	MES
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	97.8	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	93.7	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	87.6	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	92.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	95.9	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	83.3	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.6	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	87.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	89.5	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.4	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	91.6	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	93.7	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	86.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	93.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	87.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	92.9	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	83.9	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	93.2	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	92.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	93.9	80.0	120	----
Total Metals (QCLot: 1472323)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Total Metals (QCLot: 1472324)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	90.2	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.1	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.5	80.0	120	----
Dissolved Metals (QCLot: 1472432)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.8	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1472432) - continued									
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	92.2	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.3	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.1	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.8	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.0	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	90.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.4	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	92.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	99.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	99.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.5	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	93.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	98.0	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	95.4	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.6	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	92.7	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	92.8	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	94.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	98.1	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.4	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Dissolved Metals (QCLot: 1472432) - continued									
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.1	80.0	120	----
Dissolved Metals (QCLot: 1472433)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1463000)										
WP2413267-008	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.6 mg/L	100 mg/L	98.6	75.0	125	----
Anions and Nutrients (QCLot: 1463016)										
WP2413300-003	SW-12-B	Sulfate (as SO4)	14808-79-8	E235.SO4	98.8 mg/L	100 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 1463017)										
WP2413300-003	SW-12-B	Nitrate (as N)	14797-55-8	E235.NO3-L	2.49 mg/L	2.5 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 1463018)										
WP2413300-003	SW-12-B	Nitrite (as N)	14797-65-0	E235.NO2-L	0.506 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1463019)										
WP2413300-003	SW-12-B	Chloride	16887-00-6	E235.Cl-L	99.9 mg/L	100 mg/L	99.9	75.0	125	----
Anions and Nutrients (QCLot: 1463986)										
WP2413188-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1464459)										
WP2413296-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.105 mg/L	0.1 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1466287)										
WP2413499-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.230 mg/L	0.25 mg/L	91.9	70.0	130	----
Cyanides (QCLot: 1466956)										
WP2413300-001	SW-14	Cyanide, weak acid dissociable	----	E336-L	0.116 mg/L	0.125 mg/L	93.1	75.0	125	----
Cyanides (QCLot: 1466957)										
WP2413300-001	SW-14	Cyanide, free	----	E339-L	0.115 mg/L	0.125 mg/L	92.1	75.0	125	----
Cyanides (QCLot: 1466958)										
WP2413300-001	SW-14	Cyanide, strong acid dissociable (Total)	----	E333-L	0.199 mg/L	0.25 mg/L	79.7	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1464659)										
WP2413300-002	SW-14-B	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1466661)										
WP2413559-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.27 mg/L	5 mg/L	105	70.0	130	----
Total Metals (QCLot: 1464178)										
WP2413138-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000992 mg/L	0 mg/L	99.2	70.0	130	----
Total Metals (QCLot: 1472322)										
WP2412998-008	Anonymous	Aluminum, total	7429-90-5	E420	0.201 mg/L	0.2 mg/L	101	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0213 mg/L	0.02 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1472322) - continued										
WP2412998-008	Anonymous	Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0470 mg/L	0.04 mg/L	117	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00952 mg/L	0.01 mg/L	95.2	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00384 mg/L	0.004 mg/L	96.1	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0392 mg/L	0.04 mg/L	98.0	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		Copper, total	7440-50-8	E420	0.0172 mg/L	0.02 mg/L	86.0	70.0	130	----
		Iron, total	7439-89-6	E420	1.93 mg/L	2 mg/L	96.5	70.0	130	----
		Lead, total	7439-92-1	E420	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Lithium, total	7439-93-2	E420	0.120 mg/L	0.1 mg/L	120	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0367 mg/L	0.04 mg/L	91.7	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	9.44 mg/L	10 mg/L	94.4	70.0	130	----
		Silver, total	7440-22-4	E420	0.00388 mg/L	0.004 mg/L	96.9	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00388 mg/L	0.004 mg/L	97.0	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Tin, total	7440-31-5	E420	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0380 mg/L	0.04 mg/L	95.1	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00353 mg/L	0.004 mg/L	88.3	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, total	7440-66-6	E420	0.377 mg/L	0.4 mg/L	94.2	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 1464336)										
WP2412991-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000954 mg/L	0 mg/L	95.4	70.0	130	----
Dissolved Metals (QCLot: 1468663)										
WP2413300-005	DUP-03	Mercury, dissolved	7439-97-6	E509	0.0000975 mg/L	0 mg/L	97.5	70.0	130	----
Dissolved Metals (QCLot: 1472432)										
WP2413269-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.248 mg/L	0.2 mg/L	124	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1472432) - continued										
WP2413269-001	Anonymous	Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0223 mg/L	0.02 mg/L	111	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0384 mg/L	0.04 mg/L	96.0	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00846 mg/L	0.01 mg/L	84.6	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00360 mg/L	0.004 mg/L	89.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0168 mg/L	0.02 mg/L	83.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.85 mg/L	2 mg/L	92.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0182 mg/L	0.02 mg/L	91.1	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	ND mg/L	----	ND	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0360 mg/L	0.04 mg/L	90.0	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	12.8 mg/L	10 mg/L	128	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00389 mg/L	0.004 mg/L	97.3	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0394 mg/L	0.04 mg/L	98.4	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00346 mg/L	0.004 mg/L	86.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0460 mg/L	0.04 mg/L	115	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00375 mg/L	0.004 mg/L	93.6	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.113 mg/L	0.1 mg/L	113	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.362 mg/L	0.4 mg/L	90.6	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0433 mg/L	0.04 mg/L	108	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
1	SW-14	26-May-24	10:05	Water			X		7.45	11	64.7
2	SW-14-B	26-May-24	10:50	Water			X		7	11	68.1
3	SW-12-b	26-May-24	11:35	Water			X		6.31	7.9	45.9
4	SW-03	26-May-24	14:00	Water		X			6.93	8.6	76.2
5	Dup-03	26-May-24	14:10	Water		X			6.93	8.6	76.2
6	Blank-03	26-May-24	14:00	Water		X			X	X	X
7	Travel Blank	26-May-24	X	Water		X			X	X	X

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: AP	MAY 26 2024	Time: 9:00	Received by:	Date: MAY 28 2024	Time: 1150	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2413300

Telephone : +1 204 255 9720

15.4

Sample Intake					
Client:	Great Bear				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	7x40 7x250	Yellow/Black		14x40	
Purple/White	14x60	Light blue/White			
Warm red/White	14x125	Orange/Black			
Dark Green/White	2x60	Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2413499**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 29-May-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 29-May-2024
C-O-C number	: ----	Issue Date	: 04-Jun-2024 16:14
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Truong	Analyst	Metals, Winnipeg, Manitoba
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	GL-TRIB	SW-GL	SW-GL-B	DL-REF	DC-US
					Client sampling date / time	27-May-2024 11:25	27-May-2024 14:40	27-May-2024 14:15	27-May-2024 12:50	27-May-2024 12:10
						WP2413499-001	WP2413499-002	WP2413499-003	WP2413499-004	WP2413499-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.08	7.23	7.18	7.08	7.14
Temperature, field	----	EF001/WP	0.10	°C		11.3	11.7	11.4	11.5	11.9
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		31.0	31.6	32.0	25.9	30.6
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		31.0	31.6	32.0	25.9	30.6
Conductivity	----	E100/WP	1.0	µS/cm		65.7	64.6	64.6	55.9	64.2
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		32.5	29.9	29.8	29.8	31.6
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		35.8	31.9	32.6	32.0	34.5
pH	----	E108/WP	0.10	pH units		7.40	7.57	7.55	7.26	7.40
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		59.0	46.7	41.3	58.6	60.7
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.1	1.3	1.7	2.6	5.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0059	<0.0050	<0.0050	0.0114	0.0059
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.20	0.20	0.20	0.18	0.22
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	0.0208	0.0125
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	0.0208	0.0125
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0209	0.0156	0.0203	0.0292	0.0394
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.69	0.57	0.56	0.62	0.69
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0018	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	GL-TRIB	SW-GL	SW-GL-B	DL-REF	DC-US
					Client sampling date / time	27-May-2024 11:25	27-May-2024 14:40	27-May-2024 14:15	27-May-2024 12:50	27-May-2024 12:10
						WP2413499-001	WP2413499-002	WP2413499-003	WP2413499-004	WP2413499-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		22.1	11.5	11.5	23.6	21.0
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.159	0.0132	0.0123	0.264	0.194
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00011	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00181	0.00142	0.00144	0.00169	0.00174
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00850	0.00689	0.00704	0.00824	0.00827
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000054	<0.0000050	<0.0000050	0.0000056	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.44	9.31	9.50	8.08	8.97
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000014	0.000012
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00051	0.00014	<0.00010	0.00064	0.00051
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00051	<0.00050	<0.00050	0.00064	0.00051
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00010	<0.00010	<0.00010	0.00016	0.00013
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00100	<0.00050	<0.00050	0.00103	0.00094
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.431	0.135	0.138	0.524	0.516
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000114	<0.000050	<0.000050	0.000106	0.000128
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0014	0.0013	0.0018	0.0018
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.96	2.10	2.15	2.86	2.95
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00763	0.0114	0.0125	0.0159	0.0121
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000179	0.000094	0.000082	0.000143	0.000163
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00070	<0.00050	<0.00050	0.00078	0.00066
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	0.031	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.970	0.670	0.678	0.834	0.966
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00180	0.00165	0.00163	0.00174	0.00182

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	GL-TRIB	SW-GL	SW-GL-B	DL-REF	DC-US
					Client sampling date / time	27-May-2024 11:25	27-May-2024 14:40	27-May-2024 14:15	27-May-2024 12:50	27-May-2024 12:10
						WP2413499-001	WP2413499-002	WP2413499-003	WP2413499-004	WP2413499-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000145	<0.000050	<0.000050	0.000131	0.000077
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.20	0.71	0.72	2.63	2.46
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	Not Detected	Not Detected	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.40	1.19	1.21	1.37	1.40
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0231	0.0216	0.0216	0.0203	0.0221
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00455	0.00047	0.00034	0.00849	0.00643
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000168	0.000036	0.000035	0.000184	0.000180
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00080	<0.00050	<0.00050	0.00093	0.00090
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00031	<0.00020	<0.00020	0.00036	0.00029
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0921	0.0041	0.0033	0.128	0.0780
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00164	0.00117	0.00115	0.00154	0.00155
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00819	0.00633	0.00637	0.00814	0.00802
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	Not Detected	Not Detected	0.000032	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	<0.000050	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	Not Detected	<0.0000050	0.0000057	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		8.66	8.60	8.57	7.74	8.35
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000016	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00035	<0.00010	<0.00010	0.00041	0.00030
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	Not Detected	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00011	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	GL-TRIB	SW-GL	SW-GL-B	DL-REF	DC-US
					Client sampling date / time	27-May-2024 11:25	27-May-2024 14:40	27-May-2024 14:15	27-May-2024 12:50	27-May-2024 12:10
						WP2413499-001	WP2413499-002	WP2413499-003	WP2413499-004	WP2413499-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00084	<0.00020	0.00024	0.00095	0.00076
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.292	0.054	0.057	0.320	0.302
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000078	<0.000050	<0.000050	0.000145	0.000084
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.65	2.04	2.04	2.54	2.61
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00498	0.00077	0.00120	0.0136	0.00724
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000178	0.000089	0.000079	0.000163	0.000163
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00055	<0.00050	<0.00050	0.00065	<0.00050
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.849	0.608	0.603	0.736	0.831
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00167	0.00164	0.00163	0.00148	0.00161
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000111	0.000065	0.000051	0.000112	0.000097
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.95	0.614	0.619	2.08	1.95
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	Not Detected	Not Detected	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.20	1.04	1.03	1.28	1.23
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0213	0.0214	0.0207	0.0208	0.0209
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	<0.00020	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	Not Detected	Not Detected	0.000019	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	0.00011	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00242	<0.00030	<0.00030	0.00270	0.00206
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000153	0.000029	0.000028	0.000166	0.000159
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00059	<0.00050	<0.00050	0.00058	0.00057
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0014	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00036	<0.00030	Not Detected	0.00040	0.00032
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	GL-TRIB	SW-GL	SW-GL-B	DL-REF	DC-US
					Client sampling date / time	27-May-2024 11:25	27-May-2024 14:40	27-May-2024 14:15	27-May-2024 12:50	27-May-2024 12:10
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2413499-001	WP2413499-002	WP2413499-003	WP2413499-004	WP2413499-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2413499**	Page	: 1 of 24
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 29-May-2024 09:00
PO	: PPR-022-3	Issue Date	: 04-Jun-2024 16:00
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DC-US	E298	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DL-REF	E298	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GL-TRIB	E298	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DC-US	E235.Cl-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.Cl-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
GL-TRIB	E235.Cl-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL	E235.Cl-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL-B	E235.Cl-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DC-US	E235.NO3-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DL-REF	E235.NO3-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
GL-TRIB	E235.NO3-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL	E235.NO3-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL-B	E235.NO3-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DC-US	E235.NO2-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DL-REF	E235.NO2-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] GL-TRIB	E235.NO2-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	27-May-2024	29-May-2024	7 days	2 days	✓	29-May-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DC-US	E235.SO4	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DL-REF	E235.SO4	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] GL-TRIB	E235.SO4	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL	E235.SO4	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL-B	E235.SO4	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DC-US	E372-U	27-May-2024	29-May-2024	28 days	2 days	✓	30-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DL-REF	E372-U	27-May-2024	29-May-2024	28 days	2 days	✓	30-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GL-TRIB	E372-U	27-May-2024	29-May-2024	28 days	2 days	✓	30-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	27-May-2024	29-May-2024	28 days	2 days	✓	30-May-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL-B	E372-U	27-May-2024	29-May-2024	28 days	2 days	✓	30-May-2024	28 days	3 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E339-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DL-REF	E339-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-TRIB	E339-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E339-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E333-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E333-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E333-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E336-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E336-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E336-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	27-May-2024	03-Jun-2024	14 days	7 days	✓	03-Jun-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DC-US	E421.Cr-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.Cr-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GL-TRIB	E421.Cr-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.Cr-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DC-US	E509	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DL-REF	E509	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GL-TRIB	E509	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-US	E421	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DL-REF	E421	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) GL-TRIB	E421	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DC-US	E421.P-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.P-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GL-TRIB	E421.P-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.P-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.P-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DC-US	EF001	27-May-2024	----	----	----		31-May-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DL-REF	EF001	27-May-2024	----	----	----		31-May-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
GL-TRIB	EF001	27-May-2024	----	----	----		31-May-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	27-May-2024	----	----	----		31-May-2024	----	4 days	
Field Tests : Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL-B	EF001	27-May-2024	----	----	----		31-May-2024	----	4 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DC-US	E358-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DL-REF	E358-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GL-TRIB	E358-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL-B	E358-L	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Physical Tests : Acidity by Titration										
HDPE DC-US	E283	27-May-2024	31-May-2024	14 days	4 days	✓	03-Jun-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE DL-REF	E283	27-May-2024	31-May-2024	14 days	4 days	✓	03-Jun-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE GL-TRIB	E283	27-May-2024	31-May-2024	14 days	4 days	✓	03-Jun-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	27-May-2024	31-May-2024	14 days	4 days	✓	03-Jun-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	27-May-2024	31-May-2024	14 days	4 days	✓	03-Jun-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DC-US	E290	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DL-REF	E290	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] GL-TRIB	E290	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DC-US	E100	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DL-REF	E100	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] GL-TRIB	E100	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	27-May-2024	29-May-2024	28 days	2 days	✓	29-May-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DC-US	E108	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DL-REF	E108	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] GL-TRIB	E108	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	27-May-2024	29-May-2024	14 days	2 days	✓	29-May-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DC-US	E162-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DL-REF	E162-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] GL-TRIB	E162-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DC-US	E160-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DL-REF	E160-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] GL-TRIB	E160-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	27-May-2024	----	----	----		30-May-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GL-TRIB	E420.Cr-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-US	E420.Cr-L	27-May-2024	03-Jun-2024	180 days	7 days	✓	03-Jun-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DL-REF	E420.Cr-L	27-May-2024	03-Jun-2024	180 days	7 days	✓	03-Jun-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-US	E508	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DL-REF	E508	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GL-TRIB	E508	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	27-May-2024	31-May-2024	28 days	4 days	✓	31-May-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GL-TRIB	E420	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-US	E420	27-May-2024	03-Jun-2024	180 days	7 days	✓	03-Jun-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DL-REF	E420	27-May-2024	03-Jun-2024	180 days	7 days	✓	03-Jun-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GL-TRIB	E420.P-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	27-May-2024	31-May-2024	180 days	4 days	✓	31-May-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-US	E420.P-L	27-May-2024	03-Jun-2024	180 days	7 days	✓	03-Jun-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
DL-REF	E420.P-L	27-May-2024	03-Jun-2024	180 days	7 days	✓	03-Jun-2024	180 days	7 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1469277	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1466427	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1464851	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1464875	1	9	11.1	5.0	✓
Conductivity in Water	E100	1466426	1	22	4.5	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1470011	0	5	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1468663	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1470010	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1464659	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1470012	0	5	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1469347	1	6	16.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1464876	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1464877	1	9	11.1	5.0	✓
pH by Meter	E108	1466428	2	36	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1464878	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1465323	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1469621	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1469349	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1468643	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1469615	1	35	2.8	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1466287	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1469617	0	8	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1465320	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1469348	1	6	16.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1469277	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1466427	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1464851	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1464875	1	9	11.1	5.0	✓
Conductivity in Water	E100	1466426	2	22	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1470011	1	5	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1468663	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1470010	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1464659	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1470012	1	5	20.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1469347	1	6	16.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1464876	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1464877	1	9	11.1	5.0	✓
pH by Meter	E108	1466428	2	36	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1464878	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1465323	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1469621	2	5	40.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1469349	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1468643	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1469615	2	35	5.7	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1466287	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1469617	2	8	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1465320	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1469348	1	6	16.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1469277	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1466427	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1464851	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1464875	1	9	11.1	5.0	✓
Conductivity in Water	E100	1466426	2	22	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1470011	1	5	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1468663	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1470010	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1464659	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1470012	1	5	20.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1469347	1	6	16.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1464876	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1464877	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1464878	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1465323	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1469621	2	5	40.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1469349	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1468643	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1469615	2	35	5.7	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1466287	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1469617	2	8	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1465320	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1469348	1	6	16.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1464851	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1464875	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1470011	0	5	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1468663	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1470010	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1464659	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1470012	0	5	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1469347	1	6	16.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1464876	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1464877	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1464878	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1469621	0	5	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1469349	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1468643	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1469615	1	35	2.8	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1466287	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1469617	0	8	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1469348	1	6	16.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity,Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2413499**	Page	: 1 of 21
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 29-May-2024 09:00
PO	: PPR-022-3	Date Analysis Commenced	: 29-May-2024
C-O-C number	: ----	Issue Date	: 04-Jun-2024 16:02
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Truong	Analyst	Winnipeg Metals, Winnipeg, Manitoba
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1465320)											
WP2413404-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.9	2.5	0.5	Diff <2x LOR	----
Physical Tests (QC Lot: 1465323)											
WP2413487-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	66.3	64.0	2.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1466426)											
WP2413487-002	Anonymous	Conductivity	----	E100	2.0	µS/cm	115	116	0.693%	10%	----
Physical Tests (QC Lot: 1466427)											
WP2413487-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	35.7	35.7	0.00%	20%	----
Physical Tests (QC Lot: 1466428)											
WP2413487-002	Anonymous	pH	----	E108	0.10	pH units	7.57	7.57	0.00%	4%	----
Physical Tests (QC Lot: 1466439)											
WP2413406-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	64.4	64.9	0.773%	20%	----
Physical Tests (QC Lot: 1466440)											
WP2413406-001	Anonymous	pH	----	E108	0.10	pH units	7.78	7.79	0.128%	4%	----
Physical Tests (QC Lot: 1469277)											
BF2400041-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1464851)											
WP2413448-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.378	0.410	8.14%	20%	----
Anions and Nutrients (QC Lot: 1464875)											
WP2413487-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	18.3	18.9	3.19%	20%	----
Anions and Nutrients (QC Lot: 1464876)											
WP2413487-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.467	0.467	0.00471%	20%	----
Anions and Nutrients (QC Lot: 1464877)											
WP2413487-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0074	0.0077	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1464878)											
WP2413487-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	168	166	0.917%	20%	----
Anions and Nutrients (QC Lot: 1466287)											
WP2413499-001	GL-TRIB	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0209	0.0187	0.0021	Diff <2x LOR	----
Cyanides (QC Lot: 1469347)											
WP2411309-002	Anonymous	Cyanide, free	----	E339-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1469348)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1469348) - continued											
WP2411309-002	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1469349)											
WP2413499-001	GL-TRIB	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0018	<0.0010	0.0008	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1464659)											
WP2413300-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	20.6	20.9	1.68%	20%	----
Total Metals (QC Lot: 1468643)											
WP2413483-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1469615)											
WP2413406-026	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0092	0.0082	0.0010	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00022	0.00022	0.000008	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0146	0.0142	2.46%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	21.1	21.4	1.26%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00082	0.00081	0.000006	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0179	0.0178	0.840%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0026	0.0026	0.00004	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	6.34	6.30	0.717%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00117	0.00116	1.62%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000192	0.000192	0.00000006	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00286	0.00284	0.00003	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.582	0.566	2.81%	20%	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.15	1.13	1.73%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00163	0.00154	0.00009	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.36	1.39	2.21%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1469615) - continued											
WP2413406-026	Anonymous	Sodium, total	7440-23-5	E420	0.050	mg/L	28.0	27.5	1.90%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0408	0.0400	2.11%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	23.5	22.9	2.95%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0271	0.0267	0.0004	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1468663)											
WP2413300-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000133	0.0000146	0.0000012	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1470010)											
WP2413395-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0140	0.0137	1.96%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00105	0.00104	1.10%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0306	0.0309	0.844%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.017	0.017	0.00004	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000065	0.0000067	0.0000001	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	63.0	63.3	0.481%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00085	0.00082	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.231	0.217	6.13%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0050	0.0049	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	15.5	15.4	0.518%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0148	0.0150	0.742%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1470010) - continued											
WP2413395-002	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000475	0.000494	0.000020	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00078	0.00074	0.00004	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.33	1.34	0.370%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00291	0.00283	2.93%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000106	0.000108	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.25	3.23	0.577%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.45	1.48	2.69%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0913	0.0912	0.0194%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	9.09	8.90	2.17%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00070	0.00074	0.00004	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000539	0.000538	0.109%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00052	0.00051	0.000005	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0047	0.0035	0.0012	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00049	0.00049	0.000006	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1465320)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1465323)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1466426)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1466427)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1466439)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1466441)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1469277)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1464851)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1464875)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1464876)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1464877)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1464878)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1466287)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1469347)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1469348)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1469349)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1464659)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1464659) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1468643)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1469615)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1469615) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1469617)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1469621)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1472566)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1472566) - continued						
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1472567)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1472568)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1468663)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1470010)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1470010) - continued						
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1470011)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1470012)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1465320)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	99.0	85.0	115	----
Physical Tests (QCLot: 1465323)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.8	85.0	115	----
Physical Tests (QCLot: 1466426)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.3	90.0	110	----
Physical Tests (QCLot: 1466427)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1466428)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1466439)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.2	85.0	115	----
Physical Tests (QCLot: 1466440)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1466441)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1469277)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 1464851)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	94.8	85.0	115	----
Anions and Nutrients (QCLot: 1464875)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1464876)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1464877)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1464878)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1466287)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.0	80.0	120	----
Cyanides (QCLot: 1469347)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1469347) - continued									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	94.1	80.0	120	----
Cyanides (QCLot: 1469348)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.8	80.0	120	----
Cyanides (QCLot: 1469349)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	84.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1464659)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	110	80.0	120	----
Total Metals (QCLot: 1468643)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Total Metals (QCLot: 1469615)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.4	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.7	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	98.7	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	111	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.1	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	97.1	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.2	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.5	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	115	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.7	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.8	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	99.8	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	94.3	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	94.6	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1469615) - continued									
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	96.3	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.1	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	96.6	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	95.3	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.8	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.0	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	97.8	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.9	80.0	120	----
Total Metals (QCLot: 1469617)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	99.8	80.0	120	----
Total Metals (QCLot: 1469621)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Total Metals (QCLot: 1472566)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	105	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	108	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.1	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	97.3	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	98.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1472566) - continued									
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	114	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.2	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	106	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	107	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.5	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	95.6	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.9	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.9	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.5	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	97.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	105	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	100.0	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	94.8	80.0	120	----
Total Metals (QCLot: 1472567)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1472568)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.5	80.0	120	----
Dissolved Metals (QCLot: 1470010)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	93.1	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.6	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	88.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.0	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1470010) - continued									
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	85.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.5	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	93.3	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	99.3	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	90.2	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	92.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	92.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	85.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.1	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	85.0	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	98.2	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	95.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.9	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	90.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	97.8	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	86.4	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	95.1	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	87.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	92.3	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	90.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	93.7	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	88.1	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.7	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	99.5	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	89.7	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.1	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	93.3	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	94.3	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.2	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.1	80.0	120	----
Dissolved Metals (QCLot: 1470011)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	90.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1464851)										
WP2413448-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1464875)										
WP2413487-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1464876)										
WP2413487-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.49 mg/L	2.5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1464877)										
WP2413487-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.498 mg/L	0.5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1464878)										
WP2413487-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1466287)										
WP2413499-002	SW-GL	Phosphorus, total	7723-14-0	E372-U	0.230 mg/L	0.25 mg/L	91.9	70.0	130	----
Cyanides (QCLot: 1469347)										
WP2411309-002	Anonymous	Cyanide, free	----	E339-L	0.632 mg/L	0.625 mg/L	101	75.0	125	----
Cyanides (QCLot: 1469348)										
WP2411309-002	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.627 mg/L	0.625 mg/L	100	75.0	125	----
Cyanides (QCLot: 1469349)										
WP2413499-001	GL-TRIB	Cyanide, strong acid dissociable (Total)	----	E333-L	0.200 mg/L	0.25 mg/L	79.9	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1464659)										
WP2413300-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1468643)										
WP2413499-001	GL-TRIB	Mercury, total	7439-97-6	E508	0.0000924 mg/L	0 mg/L	92.4	70.0	130	----
Total Metals (QCLot: 1469615)										
WP2413406-026	Anonymous	Aluminum, total	7429-90-5	E420	0.190 mg/L	0.2 mg/L	95.0	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, total	7440-39-3	E420	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Boron, total	7440-42-8	E420	0.096 mg/L	0.1 mg/L	96.2	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00392 mg/L	0.004 mg/L	98.0	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00994 mg/L	0.01 mg/L	99.4	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0391 mg/L	0.04 mg/L	97.7	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1469615) - continued										
WP2413406-026	Anonymous	Cobalt, total	7440-48-4	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Copper, total	7440-50-8	E420	0.0188 mg/L	0.02 mg/L	93.9	70.0	130	----
		Iron, total	7439-89-6	E420	1.98 mg/L	2 mg/L	99.2	70.0	130	----
		Lead, total	7439-92-1	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Lithium, total	7439-93-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0194 mg/L	0.02 mg/L	96.8	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0182 mg/L	0.02 mg/L	91.0	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0382 mg/L	0.04 mg/L	95.5	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.68 mg/L	10 mg/L	96.8	70.0	130	----
		Potassium, total	7440-09-7	E420	3.90 mg/L	4 mg/L	97.4	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0434 mg/L	0.04 mg/L	109	70.0	130	----
		Silicon, total	7440-21-3	E420	8.96 mg/L	10 mg/L	89.6	70.0	130	----
		Silver, total	7440-22-4	E420	0.00377 mg/L	0.004 mg/L	94.2	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0364 mg/L	0.04 mg/L	91.0	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Tin, total	7440-31-5	E420	0.0189 mg/L	0.02 mg/L	94.4	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0363 mg/L	0.04 mg/L	90.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0191 mg/L	0.02 mg/L	95.5	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0986 mg/L	0.1 mg/L	98.6	70.0	130	----
		Zinc, total	7440-66-6	E420	0.385 mg/L	0.4 mg/L	96.3	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0377 mg/L	0.04 mg/L	94.3	70.0	130	----
Dissolved Metals (QCLot: 1468663)										
WP2413300-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000975 mg/L	0 mg/L	97.5	70.0	130	----
Dissolved Metals (QCLot: 1470010)										
WP2413395-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.181 mg/L	0.2 mg/L	90.7	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0355 mg/L	0.04 mg/L	88.8	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00945 mg/L	0.01 mg/L	94.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.082 mg/L	0.1 mg/L	82.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0363 mg/L	0.04 mg/L	90.7	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0183 mg/L	0.02 mg/L	91.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1470010) - continued										
WP2413395-002	Anonymous	Copper, dissolved	7440-50-8	E421	0.0182 mg/L	0.02 mg/L	90.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.72 mg/L	2 mg/L	85.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0786 mg/L	0.1 mg/L	78.6	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0186 mg/L	0.02 mg/L	92.8	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0357 mg/L	0.04 mg/L	89.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.77 mg/L	10 mg/L	97.7	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.62 mg/L	4 mg/L	90.4	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0393 mg/L	0.04 mg/L	98.3	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.27 mg/L	10 mg/L	82.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00383 mg/L	0.004 mg/L	95.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.72 mg/L	2 mg/L	86.0	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	18.0 mg/L	20 mg/L	90.0	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00374 mg/L	0.004 mg/L	93.4	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0356 mg/L	0.04 mg/L	89.0	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00384 mg/L	0.004 mg/L	95.9	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0964 mg/L	0.1 mg/L	96.4	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.374 mg/L	0.4 mg/L	93.4	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	**Analysis Request**
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klocnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	GL-Trib	27-May-24	11:25	Water			X		7.08	11.3	51.8
	SW-GL	27-May-24	14:40	Water		X			7.23	11.7	51
	SW-GL-B	27-May-24	14:15	Water		X			7.18	11.4	50.8
	DL-REF	27-May-24	12:50	Water			X		7.08	11.5	44.7
	DC-US	27-May-24	12:10	Water			X		7.14	11.9	51.5

SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:	AP	MAY 27 2024	Time: 9:00	Received by: hS	Date: MAY 29 2024	Time: 900	Received by:	Time:

10.6°C

Environmental Division
Winnipeg
Work Order Reference
WP2413499

Telephone : +1 204 255 9720

Sample Intake						
Client: Hiorcss - Great Bear Resources						
Cheque Enclosed with CoC		Yes		No		
Priority/Emergency Required (circle one)		Yes		No		
Time Sensitive Hold Time (circle one)		Yes		No		
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White		Yellow/Black				
Purple/White		Light blue/White				
Warm red/White		Orange/Black				
Dark Green/White		Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

CERTIFICATE OF ANALYSIS

Work Order	: **WP2414163**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 04-Jun-2024 09:20
PO	: PPR-022-3	Date Analysis Commenced	: 04-Jun-2024
C-O-C number	: ----	Issue Date	: 11-Jun-2024 16:12
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Lee McTavish		Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: SW-08	----	----	----	----
					Client sampling date / time: 31-May-2024 10:20	----	----	----	----
					WP2414163-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.72	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	15.7	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.9	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	31.1	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	31.1	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	68.2	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	34.8	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	34.9	----	----	----	----
pH	----	E108/WP	0.10	pH units	7.39	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	59.4	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	10.6	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0307	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.24	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0390	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.83	----	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0010	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	31-May-2024 10:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2414163-001	--------	--------	--------	--------
						Result	----	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		20.8	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.201	----	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00190	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0102	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000058	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.41	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000015	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00055	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00055	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00016	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00104	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.508	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000148	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0012	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.76	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0263	----	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000147	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00077	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.890	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00185	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	31-May-2024 10:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2414163-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000106	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.79	----	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.38	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0194	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00728	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000168	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00120	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00033	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0980	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00178	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00834	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.52	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00037	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	31-May-2024 10:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2414163-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00088	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.355	----	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000096	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.68	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0180	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000178	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00061	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.928	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00160	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.76	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.32	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0230	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00271	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000178	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00068	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0011	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00039	----	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	----	----	----	----
					Client sampling date / time	31-May-2024 10:20	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2414163-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2414163**	Page	: 1 of 13
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 04-Jun-2024 09:20
PO	: PPR-022-3	Issue Date	: 11-Jun-2024 16:12
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	31-May-2024	04-Jun-2024	28 days	4 days	✓	04-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	31-May-2024	04-Jun-2024	28 days	4 days	✓	04-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO3-L	31-May-2024	04-Jun-2024	7 days	4 days	✓	04-Jun-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.NO2-L	31-May-2024	04-Jun-2024	7 days	4 days	✓	04-Jun-2024	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08	E235.SO4	31-May-2024	04-Jun-2024	28 days	4 days	✓	04-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	31-May-2024	04-Jun-2024	28 days	4 days	✓	05-Jun-2024	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	31-May-2024	07-Jun-2024	14 days	7 days	✓	07-Jun-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E333-L	31-May-2024	07-Jun-2024	14 days	7 days	✓	07-Jun-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E336-L	31-May-2024	07-Jun-2024	14 days	7 days	✓	07-Jun-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08	E421.Cr-L	31-May-2024	06-Jun-2024	180 days	6 days	✓	06-Jun-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	31-May-2024	06-Jun-2024	28 days	6 days	✓	06-Jun-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	31-May-2024	06-Jun-2024	180 days	6 days	✓	06-Jun-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	31-May-2024	06-Jun-2024	180 days	6 days	✓	06-Jun-2024	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	31-May-2024	----	----	----		04-Jun-2024	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	31-May-2024	05-Jun-2024	28 days	5 days	✓	05-Jun-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	31-May-2024	07-Jun-2024	14 days	7 days	✓	07-Jun-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-08	E290	31-May-2024	04-Jun-2024	14 days	4 days	✓	04-Jun-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
SW-08	E100	31-May-2024	04-Jun-2024	28 days	4 days	✓	04-Jun-2024	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
SW-08	E108	31-May-2024	04-Jun-2024	14 days	4 days	✓	04-Jun-2024	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-08	E162-L	31-May-2024	----	----	----		05-Jun-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-08	E160-L	31-May-2024	----	----	----		05-Jun-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-08	E420.Cr-L	31-May-2024	07-Jun-2024	180 days	7 days	✓	07-Jun-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-08	E508	31-May-2024	06-Jun-2024	28 days	6 days	✓	06-Jun-2024	28 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-08	E420	31-May-2024	07-Jun-2024	180 days	7 days	✓	07-Jun-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-08	E420.P-L	31-May-2024	07-Jun-2024	180 days	7 days	✓	07-Jun-2024	180 days	7 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1480973	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1475173	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1475038	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1475181	1	10	10.0	5.0	✓
Conductivity in Water	E100	1475174	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1479560	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1478820	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1479562	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1476600	1	9	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1479561	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1481023	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1475179	1	1	100.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1475180	1	1	100.0	5.0	✓
pH by Meter	E108	1475172	0	19	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1475178	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1475326	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1481521	0	1	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1481019	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1478817	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1481519	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1476220	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1481522	0	2	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1475324	1	5	20.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1481022	1	2	50.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1480973	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1475173	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1475038	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1475181	1	10	10.0	5.0	✓
Conductivity in Water	E100	1475174	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1479560	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1478820	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1479562	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1476600	1	9	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1479561	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1481023	1	2	50.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1475179	1	1	100.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1475180	1	1	100.0	5.0	✓
pH by Meter	E108	1475172	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1475178	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1475326	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1481521	1	1	100.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1481019	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1478817	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1481519	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1476220	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1481522	1	2	50.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1475324	1	5	20.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1481022	1	2	50.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1480973	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1475173	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1475038	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1475181	1	10	10.0	5.0	✓
Conductivity in Water	E100	1475174	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1479560	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1478820	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1479562	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1476600	1	9	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1479561	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1481023	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1475179	1	1	100.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1475180	1	1	100.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1475178	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1475326	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1481521	1	1	100.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1481019	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1478817	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1481519	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1476220	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1481522	1	2	50.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1475324	1	5	20.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1481022	1	2	50.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1475038	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1475181	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1479560	1	1	100.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1478820	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1479562	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1476600	1	9	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1479561	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1481023	1	2	50.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1475179	1	1	100.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1475180	1	1	100.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1475178	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1481521	0	1	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1481019	1	7	14.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1478817	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1481519	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1476220	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1481522	0	2	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1481022	1	2	50.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2414163**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 04-Jun-2024 09:20
PO	: PPR-022-3	Date Analysis Commenced	: 04-Jun-2024
C-O-C number	: ----	Issue Date	: 11-Jun-2024 16:49
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1475173)											
WP2414161-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	63.0	62.8	0.318%	20%	----
Physical Tests (QC Lot: 1475174)											
WP2414161-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	296	296	0.00%	10%	----
Physical Tests (QC Lot: 1475324)											
WP2414145-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	4.1	4.2	0.07	Diff <2x LOR	----
Physical Tests (QC Lot: 1475326)											
WP2413907-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	1340	1380	2.94%	20%	----
Physical Tests (QC Lot: 1480973)											
HA2401299-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.0	2.7	0.3	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1475038)											
WP2414145-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0329	0.0333	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1475178)											
WP2414163-001	SW-08	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.83	0.83	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1475179)											
WP2414163-001	SW-08	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1475180)											
WP2414163-001	SW-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1475181)											
WP2414163-001	SW-08	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.24	0.24	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1476220)											
WP2414045-010	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0291	0.0253	13.9%	20%	----
Cyanides (QC Lot: 1481019)											
CG2407477-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0500	mg/L	<0.0500	<0.0500	0	Diff <2x LOR	----
Cyanides (QC Lot: 1481022)											
WP2414163-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1481023)											
WP2414163-001	SW-08	Cyanide, free	----	E339-L	0.0010	mg/L	0.0010	0.0010	0.00005	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1476600)											
WP2414291-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.1	9.78	2.91%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1478817)											
WP2414142-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1481519)											
WP2414151-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00051	0.00050	0.000006	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00417	0.00423	1.34%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.238	0.236	0.716%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000070	0.0000080	0.0000010	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	26.3	26.0	1.16%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.915	0.890	2.74%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.012	0.012	0.0001	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00203	0.00210	3.02%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0234	0.0236	0.969%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	9.47	9.84	3.88%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00341	0.00329	3.58%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00122	0.00107	13.4%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00170	0.00163	0.00007	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.86	1.85	0.444%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00098	0.00091	0.00007	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.63	2.57	2.18%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000017	0.000020	0.000002	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	45.2	45.3	0.164%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.220	0.232	5.15%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	22.6	21.7	3.94%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1481519) - continued											
WP2414151-001	Anonymous	Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000558	0.000577	3.29%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0636	0.0632	0.657%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1478820)											
WP2414045-012	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1479560)											
WP2414163-001	SW-08	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00037	0.00038	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1479561)											
WP2414163-001	SW-08	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1479562)											
WP2414163-001	SW-08	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0980	0.0975	0.573%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00178	0.00182	2.50%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00834	0.00836	0.210%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	9.52	9.60	0.726%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00088	0.00087	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.355	0.355	0.0764%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000096	0.000091	0.000005	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0016	0.0017	0.00008	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.68	2.74	2.03%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0180	0.0180	0.263%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000178	0.000183	0.000005	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00061	0.00062	0.000010	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1479562) - continued											
WP2414163-001	SW-08	Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.928	0.923	0.602%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00160	0.00158	0.00001	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.76	1.74	0.843%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.32	1.28	3.04%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0230	0.0226	1.65%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00271	0.00272	0.000003	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000178	0.000170	4.78%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00068	0.00066	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0011	0.0010	0.0001	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00039	0.00038	0.000002	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1475173)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1475174)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1475324)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1475326)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1480973)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1475038)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1475178)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1475179)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1475180)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1475181)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1476220)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1481019)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1481022)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1481023)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1476600)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1478817)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1481519)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1481519) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1481519) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1481521)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1481522)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1478820)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1479560)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1479561)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1479562)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1479562) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1475172)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1475173)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.4	85.0	115	----
Physical Tests (QCLot: 1475174)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1475324)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	106	85.0	115	----
Physical Tests (QCLot: 1475326)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.9	85.0	115	----
Physical Tests (QCLot: 1480973)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Anions and Nutrients (QCLot: 1475038)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	105	85.0	115	----
Anions and Nutrients (QCLot: 1475178)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1475179)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1475180)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100.0	90.0	110	----
Anions and Nutrients (QCLot: 1475181)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1476220)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	99.4	80.0	120	----
Cyanides (QCLot: 1481019)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.9	80.0	120	----
Cyanides (QCLot: 1481022)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	88.6	80.0	120	----
Cyanides (QCLot: 1481023)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	91.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1476600)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100	80.0	120	----
Total Metals (QCLot: 1478817)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Total Metals (QCLot: 1481519)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	96.0	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.8	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	92.8	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	93.6	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	88.9	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.3	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.5	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	105	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	93.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	94.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	93.3	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	89.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	91.2	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	98.7	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	94.6	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	92.6	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	94.1	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	92.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	97.9	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	91.2	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	97.2	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	95.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	91.4	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.5	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	86.9	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1481519) - continued									
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	93.3	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	97.0	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	94.0	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Total Metals (QCLot: 1481521)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	93.8	80.0	120	----
Total Metals (QCLot: 1481522)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	94.1	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1479560)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	91.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.3	80.0	120	----
Dissolved Metals (QCLot: 1479562)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	97.4	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.6	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	94.4	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	95.4	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	100.0	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	93.8	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.5	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	91.2	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	90.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	90.6	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	89.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.8	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	97.3	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	91.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1479562) - continued									
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100.0	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	90.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	97.3	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	92.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	94.3	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	91.3	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	92.3	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	99.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	97.8	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	97.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	94.4	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	92.2	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.0	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.0	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	93.6	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	90.9	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.3	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1475038)										
WP2414145-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0980 mg/L	0.1 mg/L	98.0	75.0	125	----
Anions and Nutrients (QCLot: 1475178)										
WP2414163-001	SW-08	Sulfate (as SO4)	14808-79-8	E235.SO4	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1475179)										
WP2414163-001	SW-08	Nitrate (as N)	14797-55-8	E235.NO3-L	2.64 mg/L	2.5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1475180)										
WP2414163-001	SW-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.561 mg/L	0.5 mg/L	112	75.0	125	----
Anions and Nutrients (QCLot: 1475181)										
WP2414163-001	SW-08	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1476220)										
WP2414045-011	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.253 mg/L	0.25 mg/L	101	70.0	130	----
Cyanides (QCLot: 1481019)										
CG2407477-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	11.4 mg/L	12.5 mg/L	91.4	75.0	125	----
Cyanides (QCLot: 1481022)										
WP2414163-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.104 mg/L	0.125 mg/L	83.2	75.0	125	----
Cyanides (QCLot: 1481023)										
WP2414163-001	SW-08	Cyanide, free	----	E339-L	0.112 mg/L	0.125 mg/L	89.9	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1476600)										
WP2414291-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1478817)										
WP2414145-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000980 mg/L	0 mg/L	98.0	70.0	130	----
Total Metals (QCLot: 1481519)										
WP2414151-001	Anonymous	Aluminum, total	7429-90-5	E420	0.199 mg/L	0.2 mg/L	99.6	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0193 mg/L	0.02 mg/L	96.3	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, total	7440-39-3	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00923 mg/L	0.01 mg/L	92.3	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1481519) - continued										
WP2414151-001	Anonymous	Cobalt, total	7440-48-4	E420	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	1.89 mg/L	2 mg/L	94.4	70.0	130	----
		Lead, total	7439-92-1	E420	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0921 mg/L	0.1 mg/L	92.1	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0189 mg/L	0.02 mg/L	94.6	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0376 mg/L	0.04 mg/L	94.1	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.79 mg/L	10 mg/L	97.9	70.0	130	----
		Potassium, total	7440-09-7	E420	3.81 mg/L	4 mg/L	95.3	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0372 mg/L	0.04 mg/L	93.1	70.0	130	----
		Silicon, total	7440-21-3	E420	9.05 mg/L	10 mg/L	90.5	70.0	130	----
		Silver, total	7440-22-4	E420	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0374 mg/L	0.04 mg/L	93.4	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00383 mg/L	0.004 mg/L	95.7	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0197 mg/L	0.02 mg/L	98.3	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0386 mg/L	0.04 mg/L	96.5	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0192 mg/L	0.02 mg/L	96.1	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00397 mg/L	0.004 mg/L	99.3	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, total	7440-66-6	E420	0.369 mg/L	0.4 mg/L	92.3	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1478820)										
WP2414048-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000964 mg/L	0 mg/L	96.4	70.0	130	----
Dissolved Metals (QCLot: 1479560)										
WP2414163-001	SW-08	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 1479561)										
WP2414163-001	SW-08	Phosphorus, dissolved	7723-14-0	E421.P-L	10.3 mg/L	10 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1479562)										
WP2414163-001	SW-08	Aluminum, dissolved	7429-90-5	E421	0.199 mg/L	0.2 mg/L	99.7	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0452 mg/L	0.04 mg/L	113	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1479562) - continued										
WP2414163-001	SW-08	Cadmium, dissolved	7440-43-9	E421	0.00413 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.95 mg/L	2 mg/L	97.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0392 mg/L	0.04 mg/L	98.1	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.3 mg/L	10 mg/L	103	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.96 mg/L	4 mg/L	99.1	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.77 mg/L	10 mg/L	97.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.87 mg/L	2 mg/L	93.5	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.4 mg/L	20 mg/L	107	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.410 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: EM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-08	May 31 2024	10:20	Water	9	X			6.72	15.7	60.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL
Released by: EM	June 3 2024	Time:	Received by:	Date: JUN 04 2024	Time:	Recei

14-9

Environmental Division
Winnipeg
Work Order Reference
WP2414163

Telephone : +1 204 255 9720

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2414533**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Jun-2024 09:32
PO	: PPR-022-3	Date Analysis Commenced	: 07-Jun-2024
C-O-C number	: ----	Issue Date	: 14-Jun-2024 15:56
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-06	SW-07	----	----	----
					Client sampling date / time	05-Jun-2024 11:58	05-Jun-2024 13:40	----	----	----
						WP2414533-001	WP2414533-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.11	6.53	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		11.4	12.9	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		8.0	4.7	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		13.1	34.5	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		13.1	34.5	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		49.6	76.2	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		32.0	44.8	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		33.7	42.9	----	----	----
pH	----	E108/WP	0.10	pH units		6.48	7.06	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		111	135	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		61.7	6.1	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0174	0.0216	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.23	0.37	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0390	0.0147	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0390	0.0147	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0790	0.0115	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.15	0.44	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0014	0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0012	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-06	SW-07	----	----	----
					Client sampling date / time	05-Jun-2024 11:58	05-Jun-2024 13:40	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2414533-001	WP2414533-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0014	0.0011	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		54.9	38.6	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.832	0.159	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00018	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00447	0.00219	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0140	0.00829	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000060	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000181	0.0000055	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		8.99	12.3	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000027	<0.000010	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00182	0.00048	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00182	<0.00050	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00077	0.00010	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00282	0.00089	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		1.29	0.214	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000384	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0024	0.0018	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.74	2.95	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0484	0.00488	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000106	0.0000060	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000153	0.000157	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00209	0.00084	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.072	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.072	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.309	0.461	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00139	0.00122	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-06	SW-07	----	----	----
					Client sampling date / time	05-Jun-2024 11:58	05-Jun-2024 13:40	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2414533-001	WP2414533-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000085	0.000070	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		5.50	4.79	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.79	1.96	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0296	0.0234	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.86	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000012	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00034	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0204	0.00381	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000245	0.000055	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00260	0.00066	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0041	<0.0030	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00110	0.00039	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.588	0.142	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00019	0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00431	0.00227	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0108	0.00848	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000040	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000136	0.0000051	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		8.89	12.9	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00125	0.00052	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00125	0.00052	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00044	<0.00010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-06	SW-07	----	----	----
					Client sampling date / time	05-Jun-2024 11:58	05-Jun-2024 13:40	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2414533-001	WP2414533-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00231	0.00088	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.881	0.179	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000139	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0020	0.0018	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.38	3.05	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0331	0.00319	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000162	0.0000084	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000166	0.000140	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00162	0.00088	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.289	0.484	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00092	0.00125	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000170	0.000106	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		5.12	4.74	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.69	1.96	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0283	0.0245	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.74	<0.50	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00032	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00907	0.00291	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000198	0.000047	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00135	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0034	0.0019	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00090	0.00040	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-06	SW-07	----	----	----
					Client sampling date / time	05-Jun-2024 11:58	05-Jun-2024 13:40	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2414533-001	WP2414533-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2414533**	Page	: 1 of 15
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Jun-2024 09:32
PO	: PPR-022-3	Issue Date	: 14-Jun-2024 15:42
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-06	E298	05-Jun-2024	11-Jun-2024	28 days	6 days	✓	11-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-07	E298	05-Jun-2024	11-Jun-2024	28 days	6 days	✓	11-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-06	E235.Cl-L	05-Jun-2024	07-Jun-2024	28 days	2 days	✓	07-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-07	E235.Cl-L	05-Jun-2024	07-Jun-2024	28 days	2 days	✓	07-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-06	E235.NO3-L	05-Jun-2024	07-Jun-2024	7 days	2 days	✓	07-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-07	E235.NO3-L	05-Jun-2024	07-Jun-2024	7 days	2 days	✓	07-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-06	E235.NO2-L	05-Jun-2024	07-Jun-2024	7 days	2 days	✓	07-Jun-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-07	E235.NO2-L	05-Jun-2024	07-Jun-2024	7 days	2 days	✓	07-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-06	E235.SO4	05-Jun-2024	07-Jun-2024	28 days	2 days	✓	07-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-07	E235.SO4	05-Jun-2024	07-Jun-2024	28 days	2 days	✓	07-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-06	E372-U	05-Jun-2024	10-Jun-2024	28 days	5 days	✓	11-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-07	E372-U	05-Jun-2024	10-Jun-2024	28 days	5 days	✓	11-Jun-2024	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-06	E339-L	05-Jun-2024	11-Jun-2024	14 days	6 days	✓	11-Jun-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-07	E339-L	05-Jun-2024	11-Jun-2024	14 days	6 days	✓	11-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-06	E333-L	05-Jun-2024	11-Jun-2024	14 days	6 days	✓	11-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-07	E333-L	05-Jun-2024	11-Jun-2024	14 days	6 days	✓	11-Jun-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-06	E336-L	05-Jun-2024	11-Jun-2024	14 days	6 days	✓	11-Jun-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-07	E336-L	05-Jun-2024	11-Jun-2024	14 days	6 days	✓	11-Jun-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-06	E421.Cr-L	05-Jun-2024	10-Jun-2024	180 days	5 days	✓	10-Jun-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-07	E421.Cr-L	05-Jun-2024	10-Jun-2024	180 days	5 days	✓	10-Jun-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-06	E509	05-Jun-2024	14-Jun-2024	28 days	9 days	✓	14-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-07	E509	05-Jun-2024	14-Jun-2024	28 days	9 days	✓	14-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-06	E421	05-Jun-2024	10-Jun-2024	180 days	5 days	✓	10-Jun-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-07	E421	05-Jun-2024	10-Jun-2024	180 days	5 days	✓	10-Jun-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-06	E421.P-L	05-Jun-2024	10-Jun-2024	180 days	5 days	✓	10-Jun-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-07	E421.P-L	05-Jun-2024	10-Jun-2024	180 days	5 days	✓	10-Jun-2024	180 days	5 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-06	EF001	05-Jun-2024	----	----	----		07-Jun-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-07	EF001	05-Jun-2024	----	----	----		07-Jun-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-06	E358-L	05-Jun-2024	08-Jun-2024	28 days	3 days	✓	08-Jun-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-07	E358-L	05-Jun-2024	08-Jun-2024	28 days	3 days	✓	08-Jun-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-06	E283	05-Jun-2024	11-Jun-2024	14 days	6 days	✓	13-Jun-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-07	E283	05-Jun-2024	11-Jun-2024	14 days	6 days	✓	13-Jun-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-06	E290	05-Jun-2024	07-Jun-2024	14 days	2 days	✓	07-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-07	E290	05-Jun-2024	07-Jun-2024	14 days	2 days	✓	07-Jun-2024	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-06	E100	05-Jun-2024	07-Jun-2024	28 days	2 days	✓	07-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-07	E100	05-Jun-2024	07-Jun-2024	28 days	2 days	✓	07-Jun-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-06	E108	05-Jun-2024	07-Jun-2024	14 days	2 days	✓	07-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-07	E108	05-Jun-2024	07-Jun-2024	14 days	2 days	✓	07-Jun-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-06	E162-L	05-Jun-2024	----	----	----		10-Jun-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-07	E162-L	05-Jun-2024	----	----	----		10-Jun-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-06	E160-L	05-Jun-2024	----	----	----		10-Jun-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-07	E160-L	05-Jun-2024	----	----	----		10-Jun-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-06	E420.Cr-L	05-Jun-2024	12-Jun-2024	180 days	7 days	✓	12-Jun-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-07	E420.Cr-L	05-Jun-2024	12-Jun-2024	180 days	7 days	✓	12-Jun-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-06	E508	05-Jun-2024	10-Jun-2024	28 days	5 days	✓	10-Jun-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-07	E508	05-Jun-2024	10-Jun-2024	28 days	5 days	✓	10-Jun-2024	28 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-06	E420	05-Jun-2024	12-Jun-2024	180 days	7 days	✓	12-Jun-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-07	E420	05-Jun-2024	12-Jun-2024	180 days	7 days	✓	12-Jun-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-06	E420.P-L	05-Jun-2024	12-Jun-2024	180 days	7 days	✓	12-Jun-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-07	E420.P-L	05-Jun-2024	12-Jun-2024	180 days	7 days	✓	12-Jun-2024	180 days	7 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1487816	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1484597	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1486504	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1482078	1	5	20.0	5.0	✓
Conductivity in Water	E100	1484596	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1485753	0	2	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1494012	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1485752	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1482992	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1485754	0	11	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1487718	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1482076	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1482077	1	6	16.6	5.0	✓
pH by Meter	E108	1484595	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1482073	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1484677	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1489159	0	2	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1487719	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1484541	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1489158	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1486424	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1489160	0	6	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1484671	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1487717	1	11	9.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1487816	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1484597	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1486504	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1482078	1	5	20.0	5.0	✓
Conductivity in Water	E100	1484596	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1485753	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1494012	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1485752	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1482992	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1485754	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1487718	1	11	9.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1482076	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1482077	1	6	16.6	5.0	✓
pH by Meter	E108	1484595	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1482073	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1484677	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1489159	1	2	50.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1487719	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1484541	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1489158	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1486424	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1489160	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1484671	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1487717	1	11	9.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1487816	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1484597	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1486504	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1482078	1	5	20.0	5.0	✓
Conductivity in Water	E100	1484596	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1485753	1	2	50.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1494012	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1485752	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1482992	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1485754	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1487718	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1482076	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1482077	1	6	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1482073	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1484677	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1489159	1	2	50.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1487719	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1484541	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1489158	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1486424	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1489160	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1484671	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1487717	1	11	9.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1486504	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1482078	1	5	20.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1485753	0	2	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1494012	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1485752	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1482992	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1485754	0	11	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1487718	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1482076	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1482077	1	6	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1482073	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1489159	0	2	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1487719	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1484541	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1489158	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1486424	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1489160	0	6	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1487717	1	11	9.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order	: **WP2414533**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Jun-2024 09:32
PO	: PPR-022-3	Date Analysis Commenced	: 07-Jun-2024
C-O-C number	: ----	Issue Date	: 14-Jun-2024 15:50
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1484595)											
WP2414533-002	SW-07	pH	----	E108	0.10	pH units	7.06	7.00	0.853%	4%	----
Physical Tests (QC Lot: 1484596)											
WP2414533-002	SW-07	Conductivity	----	E100	1.0	µS/cm	76.2	75.3	1.19%	10%	----
Physical Tests (QC Lot: 1484597)											
WP2414533-002	SW-07	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	34.5	33.5	2.94%	20%	----
Physical Tests (QC Lot: 1484671)											
WP2414543-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	8.1	8.9	0.8	Diff <2x LOR	----
Physical Tests (QC Lot: 1484677)											
WP2414422-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	898	947	5.31%	20%	----
Physical Tests (QC Lot: 1487816)											
HA2401328-041	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.7	4.2	0.5	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1482073)											
WP2414547-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	123	123	0.127%	20%	----
Anions and Nutrients (QC Lot: 1482076)											
WP2414547-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	7.63	7.68	0.615%	20%	----
Anions and Nutrients (QC Lot: 1482077)											
WP2414547-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0129	0.0128	0.794%	20%	----
Anions and Nutrients (QC Lot: 1482078)											
WP2414547-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	53.0	53.9	1.68%	20%	----
Anions and Nutrients (QC Lot: 1486424)											
WP2414513-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.187	0.190	1.82%	20%	----
Anions and Nutrients (QC Lot: 1486504)											
WP2414533-002	SW-07	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0216	0.0134	0.0081	Diff <2x LOR	----
Cyanides (QC Lot: 1487717)											
WP2414533-001	SW-06	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0014	0.0014	0.00004	Diff <2x LOR	----
Cyanides (QC Lot: 1487718)											
WP2414533-001	SW-06	Cyanide, free	----	E339-L	0.0010	mg/L	0.0014	0.0014	0.00002	Diff <2x LOR	----
Cyanides (QC Lot: 1487719)											
WP2414533-001	SW-06	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0012	0.0012	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1482992)											
WP2414533-001	SW-06	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	54.9	57.9	5.42%	20%	----
Total Metals (QC Lot: 1484541)											
WP2413775-006	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1489158)											
WP2414530-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00036	0.00038	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0448	0.0456	1.78%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.142	0.151	5.96%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	57.4	58.8	2.42%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000020	0.000019	0.0000007	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00160	0.00161	0.000009	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.110	0.111	0.605%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0208	0.0221	5.93%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	56.2	55.8	0.709%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00512	0.00518	1.20%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000599	0.000623	4.01%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	5.23	5.39	3.12%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00329	0.00332	0.976%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.91	5.00	1.79%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	15.6	15.3	2.36%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.220	0.222	1.11%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	13.8	14.2	2.88%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1489158) - continued											
WP2414530-001	Anonymous	Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000072	0.000074	0.000002	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1485752)											
WP2414555-007	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0049	0.0044	0.0005	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00014	0.00013	0.000005	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00383	0.00390	1.65%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0463	0.0458	1.04%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.018	0.018	0.0001	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	69.7	70.8	1.63%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	1.01	1.01	0.274%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0147	0.0147	0.314%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	26.9	25.8	4.38%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0852	0.0852	0.0117%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00103	0.00103	0.0505%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00070	0.00071	0.000003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	4.78	4.74	0.843%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00203	0.00217	6.27%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	0.000093	0.000043	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1485752) - continued											
WP2414555-007	Anonymous	Silicon, dissolved	7440-21-3	E421	0.050	mg/L	9.05	9.05	0.0192%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.48	4.50	0.383%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.156	0.153	1.78%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.88	2.05	0.17	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00114	0.00107	0.00007	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00068	0.00069	0.000006	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000046	0.000045	0.0000008	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00116	0.00111	0.00005	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0012	0.0011	0.00010	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00069	0.00068	0.00001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1494012)											
WP2414533-001	SW-06	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000162	0.0000162	0.00000001	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1484596)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1484597)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1484671)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1484677)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1487816)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1482073)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1482076)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1482077)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1482078)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1486424)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1486504)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1487717)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1487718)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1487719)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1482992)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1484541)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1489158)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1489158) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1489158) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1489159)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1489160)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1485752)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1485752) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1485753)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1485754)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1494012)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1484595)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1484596)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.2	90.0	110	----
Physical Tests (QCLot: 1484597)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1484671)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	91.7	85.0	115	----
Physical Tests (QCLot: 1484677)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.2	85.0	115	----
Physical Tests (QCLot: 1487816)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1482073)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1482076)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1482077)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1482078)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1486424)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	92.2	80.0	120	----
Anions and Nutrients (QCLot: 1486504)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Cyanides (QCLot: 1487717)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	88.7	80.0	120	----
Cyanides (QCLot: 1487718)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	93.9	80.0	120	----
Cyanides (QCLot: 1487719)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	91.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1482992)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.0	80.0	120	----
Total Metals (QCLot: 1484541)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.1	80.0	120	----
Total Metals (QCLot: 1489158)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.6	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.4	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	107	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	96.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.2	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.3	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	96.7	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.8	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.8	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	96.4	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.1	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	105	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	91.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1489158) - continued									
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.4	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	94.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Total Metals (QCLot: 1489159)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Total Metals (QCLot: 1489160)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Dissolved Metals (QCLot: 1485752)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.0	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	99.7	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.0	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	96.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	97.7	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.5	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.9	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.6	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	96.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	97.8	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1485752) - continued									
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	98.1	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	94.6	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	90.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.6	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.2	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	99.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	98.6	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.0	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.0	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	98.7	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.9	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	99.0	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	95.1	80.0	120	----
Dissolved Metals (QCLot: 1485753)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.8	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1482073)										
WP2414547-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1482076)										
WP2414547-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1482077)										
WP2414547-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.511 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1482078)										
WP2414547-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1486424)										
WP2414526-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.210 mg/L	0.25 mg/L	83.9	70.0	130	----
Anions and Nutrients (QCLot: 1486504)										
WP2414533-002	SW-07	Ammonia, total (as N)	7664-41-7	E298	0.0916 mg/L	0.1 mg/L	91.6	75.0	125	----
Cyanides (QCLot: 1487717)										
WP2414533-001	SW-06	Cyanide, weak acid dissociable	----	E336-L	0.114 mg/L	0.125 mg/L	90.8	75.0	125	----
Cyanides (QCLot: 1487718)										
WP2414533-001	SW-06	Cyanide, free	----	E339-L	0.120 mg/L	0.125 mg/L	95.7	75.0	125	----
Cyanides (QCLot: 1487719)										
WP2414533-001	SW-06	Cyanide, strong acid dissociable (Total)	----	E333-L	0.202 mg/L	0.25 mg/L	81.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1482992)										
WP2414533-002	SW-07	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1484541)										
WP2414383-002	Anonymous	Mercury, total	7439-97-6	E508	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1489158)										
WP2414530-001	Anonymous	Aluminum, total	7429-90-5	E420	0.214 mg/L	0.2 mg/L	107	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00431 mg/L	0.004 mg/L	108	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0442 mg/L	0.04 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1489158) - continued										
WP2414530-001	Anonymous	Cobalt, total	7440-48-4	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Copper, total	7440-50-8	E420	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Iron, total	7439-89-6	E420	2.20 mg/L	2 mg/L	110	70.0	130	----
		Lead, total	7439-92-1	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0967 mg/L	0.1 mg/L	96.7	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0422 mg/L	0.04 mg/L	106	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.0 mg/L	10 mg/L	110	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0452 mg/L	0.04 mg/L	113	70.0	130	----
		Silicon, total	7440-21-3	E420	9.50 mg/L	10 mg/L	95.0	70.0	130	----
		Silver, total	7440-22-4	E420	0.00418 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	23.0 mg/L	20 mg/L	115	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Tin, total	7440-31-5	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0422 mg/L	0.04 mg/L	106	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00443 mg/L	0.004 mg/L	111	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Zinc, total	7440-66-6	E420	0.419 mg/L	0.4 mg/L	105	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1485752)										
WP2414555-007	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.207 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0219 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00925 mg/L	0.01 mg/L	92.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.099 mg/L	0.1 mg/L	99.1	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00415 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.07 mg/L	2 mg/L	104	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1485752) - continued										
WP2414555-007	Anonymous	Lithium, dissolved	7439-93-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0402 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.76 mg/L	10 mg/L	87.6	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00330 mg/L	0.004 mg/L	82.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	22.0 mg/L	20 mg/L	110	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0400 mg/L	0.04 mg/L	100.0	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0197 mg/L	0.02 mg/L	98.3	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.409 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1494012)										
WP2414533-002	SW-07	Mercury, dissolved	7439-97-6	E509	0.0000996 mg/L	0 mg/L	99.6	70.0	130	----

Report To		Reports / Recipients		Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)		☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A		☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1	ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2	hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3	christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4	jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5	curtis.bloemberg@kinross.com	
Company:		Email 6	emily.meek@kinross.com	Analysis Request
		Email 7	aaron.peloquin@kinross.com	
		Email 8	amy.elliot@wsp.com	
		Email 9	dale.klodnicki@wsp.com	
Contact:		Email 10	matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1	invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-06	5-Jun-24	11:58	Water		X			6.11	11.4	38.7
	SW-07	5-Jun-24	13:40	Water		X			6.53	12.9	60.2

SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB 6-Jun-24	Time: 9:00	Received by:	Date: JUN 07 2024	Time: 9:32am 7.8°C	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2414533

Telephone : +1 204 255 9720

Sample Intake					
Client:	Kinross – G. B.R.				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White		Yellow/Black			
Purple/White		Light blue/White			
Warm red/White		Orange/Black			
Dark Green/White		Dark Blue/White			
Grey/black		Black/white			
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

ALS Canada Ltd.

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CERTIFICATE OF ANALYSIS

Work Order	: **WP2415267**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 18-Jun-2024 09:40
PO	: PPR-022-3	Date Analysis Commenced	: 18-Jun-2024
C-O-C number	: ----	Issue Date	: 26-Jun-2024 14:11
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
HTD	*Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-04	SW-01	DUP-01	FIELD-01
					Client sampling date / time	16-Jun-2024 14:00	16-Jun-2024 12:45	16-Jun-2024 11:20	16-Jun-2024 11:20	16-Jun-2024 11:20
						WP2415267-001	WP2415267-002	WP2415267-003	WP2415267-004	WP2415267-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.99	6.87	6.28	6.28	----
Temperature, field	----	EF001/WP	0.10	°C		21.0	20.8	20.0	20.0	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		3.4	4.8	9.3	9.4	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		30.1	32.8	7.6	7.9	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		30.1	32.8	7.6	7.9	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		67.2	72.6	36.3	36.5	Not Detected
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		35.7	38.8	24.4	24.0	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		36.9	38.9	24.3	24.6	<0.50
pH	----	E108/WP	0.10	pH units		7.30	7.17	6.06	6.09	5.34
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		79.9	78.9	80.6	64.1 HTD, RRV	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		21.5	10.7	1.8	2.3	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0211	0.0167	0.0219	0.0211	<0.0050
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.23	0.28	<0.10	<0.10	Not Detected
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0057	<0.0050	0.0123	0.0082	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0057	<0.0051	0.0123	0.0082	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0413	0.0330	0.0226	0.0203	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.74	0.68	0.49	0.51	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0014	0.0012	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0100 DLM	<0.0010	0.0013	0.0013	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-04	SW-01	DUP-01	FIELD-01
					Client sampling date / time	16-Jun-2024 14:00	16-Jun-2024 12:45	16-Jun-2024 11:20	16-Jun-2024 11:20	16-Jun-2024 11:20
						WP2415267-001	WP2415267-002	WP2415267-003	WP2415267-004	WP2415267-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0012	0.0014	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		22.7	23.0	45.3	48.0	0.58
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.470	0.276	0.459	0.455	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00013	0.00019	0.00018	Not Detected
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00238	0.00238	0.00496	0.00505	Not Detected
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0125	0.0110	0.00812	0.00823	Not Detected
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000022	0.000025	0.000029	0.000024	Not Detected
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	Not Detected
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000074	0.0000075	0.0000153	0.0000155	Not Detected
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.67	10.5	6.77	6.87	Not Detected
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000049	0.000025	<0.000010	<0.000010	Not Detected
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00109	0.00074	0.00092	0.00092	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00109	0.00074	0.00092	0.00092	Not Detected
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00030	0.00028	0.00036	0.00036	Not Detected
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00140	0.00123	0.00094	0.00088	Not Detected
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.856	0.717	0.892	0.900	Not Detected
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000230	0.000158	0.000236	0.000230	Not Detected
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0017	0.0016	0.0011	0.0010	Not Detected
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.10	3.07	1.80	1.81	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0580	0.0816	0.0324	0.0322	Not Detected
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000079	0.0000076	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000200	0.000247	0.000092	0.000180	Not Detected
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00104	0.00087	0.00096	0.00095	Not Detected
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.035	0.037	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.00	0.996	0.097	0.089	Not Detected
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00246	0.00210	0.00028	0.00026	Not Detected

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-04	SW-01	DUP-01	FIELD-01
					Client sampling date / time	16-Jun-2024 14:00	16-Jun-2024 12:45	16-Jun-2024 11:20	16-Jun-2024 11:20	16-Jun-2024 11:20
						WP2415267-001	WP2415267-002	WP2415267-003	WP2415267-004	WP2415267-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000134	0.000065	0.000207	0.000135	<0.000050
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.45	1.13	2.66	2.68	<0.10
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.50	1.51	1.22	1.21	Not Detected
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0245	0.0243	0.0186	0.0188	Not Detected
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	0.51	<0.50	<0.50	Not Detected
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	0.00025	<0.00020	<0.00020	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000011	<0.000010	<0.000010	<0.000010	Not Detected
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00013	0.00010	0.00015	0.00015	Not Detected
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	0.00013	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0207	0.0108	0.00518	0.00527	Not Detected
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000205	0.000194	0.000093	0.000092	Not Detected
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00155	0.00119	0.00098	0.00095	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	0.0031	0.0030	Not Detected
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00057	0.00046	0.00054	0.00053	Not Detected
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0998	0.0954	0.451	0.452	Not Detected
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00015	0.00015	Not Detected
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00200	0.00232	0.00491	0.00476	Not Detected
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00942	0.00949	0.00811	0.00798	Not Detected
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000026	<0.000020	0.000025	0.000022	Not Detected
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	Not Detected
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000093	0.0000100	Not Detected
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.50	10.3	6.82	6.76	Not Detected
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00045	0.00044	0.00090	0.00086	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00090	0.00086	Not Detected
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00012	0.00019	0.00034	0.00035	Not Detected

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-04	SW-01	DUP-01	FIELD-01
					Client sampling date / time	16-Jun-2024 14:00	16-Jun-2024 12:45	16-Jun-2024 11:20	16-Jun-2024 11:20	16-Jun-2024 11:20
						WP2415267-001	WP2415267-002	WP2415267-003	WP2415267-004	WP2415267-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00100	0.00098	0.00084	0.00082	Not Detected
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.376	0.454	0.777	0.783	Not Detected
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000077	0.000078	0.000213	0.000203	Not Detected
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0016	0.0012	0.0013	Not Detected
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.92	3.18	1.78	1.73	Not Detected
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0296	0.0682	0.0322	0.0318	Not Detected
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000060	0.0000062	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000176	0.000230	0.000073	0.000109	Not Detected
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00067	0.00078	0.00109	0.00105	Not Detected
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	Not Detected
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.892	0.932	0.092	0.078	Not Detected
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00170	0.00160	0.00027	0.00022	Not Detected
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000132	0.000111	0.000174	0.000142	Not Detected
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.618	0.581	2.60	2.56	Not Detected
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.39	1.48	1.19	1.15	Not Detected
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0226	0.0233	0.0184	0.0183	Not Detected
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.53	<0.50	0.55	0.54	Not Detected
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	Not Detected
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00011	<0.00010	0.00018	0.00018	Not Detected
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	<0.00010	Not Detected	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00290	0.00281	0.00502	0.00481	Not Detected
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000186	0.000179	0.000092	0.000096	Not Detected
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00075	0.00074	0.00086	0.00084	Not Detected
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	Not Detected	0.0023	0.0025	Not Detected
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00044	0.00047	0.00064	0.00061	Not Detected
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	SW-04	SW-01	DUP-01	FIELD-01
					Client sampling date / time	16-Jun-2024 14:00	16-Jun-2024 12:45	16-Jun-2024 11:20	16-Jun-2024 11:20	16-Jun-2024 11:20
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2415267-001	WP2415267-002	WP2415267-003	WP2415267-004	WP2415267-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Laboratory	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2415267**	Page	: 1 of 24
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 18-Jun-2024 09:40
PO	: PPR-022-3	Issue Date	: 26-Jun-2024 14:14
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-01	E298	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) FIELD-01	E298	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-01	E235.Cl-L	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-01	E235.Cl-L	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.Cl-L	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.Cl-L	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.Cl-L	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.NO3-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
FIELD-01	E235.NO3-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO3-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.NO3-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO3-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
DUP-01	E235.NO2-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
FIELD-01	E235.NO2-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO2-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-04	E235.NO2-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO2-L	16-Jun-2024	18-Jun-2024	7 days	2 days	✓	18-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP-01	E235.SO4	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
FIELD-01	E235.SO4	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-01	E235.SO4	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-04	E235.SO4	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08	E235.SO4	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-01	E372-U	16-Jun-2024	19-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) FIELD-01	E372-U	16-Jun-2024	19-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	16-Jun-2024	19-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	16-Jun-2024	19-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	16-Jun-2024	19-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-01	E339-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) FIELD-01	E339-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E339-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E339-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-01	E333-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-01	E336-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E336-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E336-L	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	20-Jun-2024	14 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) DUP-01	E421.Cr-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) FIELD-01	E421.Cr-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-01	E421.Cr-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-04	E421.Cr-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08	E421.Cr-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-01	E509	16-Jun-2024	26-Jun-2024	28 days	10 days	✓	26-Jun-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) FIELD-01	E509	16-Jun-2024	26-Jun-2024	28 days	10 days	✓	26-Jun-2024	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	16-Jun-2024	26-Jun-2024	28 days	10 days	✓	26-Jun-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	16-Jun-2024	26-Jun-2024	28 days	10 days	✓	26-Jun-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	16-Jun-2024	26-Jun-2024	28 days	10 days	✓	26-Jun-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-01	E421	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) FIELD-01	E421	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-01	E421.P-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
FIELD-01	E421.P-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-01	E421.P-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08	E421.P-L	16-Jun-2024	24-Jun-2024	180 days	8 days	✓	24-Jun-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-01	EF001	16-Jun-2024	----	----	----		18-Jun-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	16-Jun-2024	----	----	----		18-Jun-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	16-Jun-2024	----	----	----		18-Jun-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08	EF001	16-Jun-2024	----	----	----		18-Jun-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-01	E358-L	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) FIELD-01	E358-L	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-04	E358-L	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	16-Jun-2024	20-Jun-2024	28 days	4 days	✓	20-Jun-2024	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] DUP-01	E283	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] FIELD-01	E283	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-01	E283	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-04	E283	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-08	E283	16-Jun-2024	20-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-01	E290	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] FIELD-01	E290	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-01	E100	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] FIELD-01	E100	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	16-Jun-2024	18-Jun-2024	28 days	2 days	✓	18-Jun-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-01	E108	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] FIELD-01	E108	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	16-Jun-2024	18-Jun-2024	14 days	2 days	✓	18-Jun-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-01	E162-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] FIELD-01	E162-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-01	E160-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] FIELD-01	E160-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	16-Jun-2024	----	----	----		19-Jun-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) FIELD-01	E420.Cr-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) FIELD-01	E508	16-Jun-2024	26-Jun-2024	28 days	10 days	✓	26-Jun-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	16-Jun-2024	25-Jun-2024	28 days	9 days	✓	25-Jun-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	16-Jun-2024	25-Jun-2024	28 days	9 days	✓	25-Jun-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	16-Jun-2024	25-Jun-2024	28 days	9 days	✓	25-Jun-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	16-Jun-2024	25-Jun-2024	28 days	9 days	✓	25-Jun-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-01	E420	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) FIELD-01	E420	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-01	E420.P-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) FIELD-01	E420.P-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	16-Jun-2024	25-Jun-2024	180 days	9 days	✓	25-Jun-2024	180 days	9 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1505614	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1501972	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1504324	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1500537	1	12	8.3	5.0	✓
Conductivity in Water	E100	1501971	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1510555	0	10	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1514739	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1510554	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503747	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1510556	0	10	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1504746	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1500535	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1500536	1	13	7.6	5.0	✓
pH by Meter	E108	1501970	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1500534	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1501347	2	37	5.4	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1512029	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1504744	1	6	16.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1512363	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1512031	1	13	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503489	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1512030	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1501354	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1504745	1	5	20.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1505614	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1501972	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1504324	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1500537	1	12	8.3	5.0	✓
Conductivity in Water	E100	1501971	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1510555	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1514739	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1510554	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503747	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1510556	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1504746	1	5	20.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1500535	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1500536	1	13	7.6	5.0	✓
pH by Meter	E108	1501970	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1500534	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1501347	2	37	5.4	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1512029	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1504744	1	6	16.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1512363	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1512031	1	13	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503489	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1512030	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1501354	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1504745	1	5	20.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1505614	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1501972	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1504324	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1500537	1	12	8.3	5.0	✓
Conductivity in Water	E100	1501971	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1510555	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1514739	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1510554	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503747	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1510556	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1504746	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1500535	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1500536	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1500534	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1501347	2	37	5.4	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1512029	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1504744	1	6	16.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1512363	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1512031	1	13	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503489	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1512030	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1501354	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1504745	1	5	20.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1504324	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1500537	1	12	8.3	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1510555	0	10	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1514739	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1510554	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503747	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1510556	0	10	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1504746	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1500535	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1500536	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1500534	1	14	7.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1512029	1	6	16.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1504744	1	6	16.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1512363	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1512031	1	13	7.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1503489	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1512030	1	6	16.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1504745	1	5	20.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2415267**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 18-Jun-2024 09:40
PO	: PPR-022-3	Date Analysis Commenced	: 18-Jun-2024
C-O-C number	: ----	Issue Date	: 26-Jun-2024 14:12
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1501347)											
WP2415061-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	196	191	2.84%	20%	----
Physical Tests (QC Lot: 1501348)											
WP2415267-005	FIELD-01	Solids, total dissolved [TDS]	----	E162-L	3.0	mg/L	<3.0	3.2	0.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1501354)											
WP2415267-001	SW-08	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	21.5	20.3	5.74%	20%	----
Physical Tests (QC Lot: 1501970)											
WP2415268-003	Anonymous	pH	----	E108	0.10	pH units	7.08	7.04	0.566%	4%	----
Physical Tests (QC Lot: 1501971)											
WP2415268-003	Anonymous	Conductivity	----	E100	2.0	µS/cm	1290	1280	0.544%	10%	----
Physical Tests (QC Lot: 1501972)											
WP2415268-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	19.0	19.4	2.08%	20%	----
Physical Tests (QC Lot: 1505614)											
WP2415267-001	SW-08	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.4	3.9	0.6	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1500534)											
WP2415267-001	SW-08	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	0.74	0.74	0.0009	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1500535)											
WP2415267-001	SW-08	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0057	0.0057	0.000008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1500536)											
WP2415267-001	SW-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1500537)											
WP2415267-001	SW-08	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.23	0.23	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1503489)											
WP2415189-016	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0058	0.0056	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1504324)											
WP2415262-018	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0521	0.0572	9.32%	20%	----
Cyanides (QC Lot: 1504744)											
WP2415267-001	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 1504745)											
WP2415267-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1504746)											
WP2415267-001	SW-08	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1503747)											
WP2414718-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	9.53	8.81	7.87%	20%	----
Organic / Inorganic Carbon (QC Lot: 1504561)											
WP2414943-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.9	11.8	0.922%	20%	----
Total Metals (QC Lot: 1512029)											
WP2415267-001	SW-08	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00109	0.00112	2.06%	20%	----
Total Metals (QC Lot: 1512030)											
WP2415267-001	SW-08	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.035	0.039	0.004	Diff <2x LOR	----
Total Metals (QC Lot: 1512031)											
WP2415267-001	SW-08	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.470	0.461	1.94%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00238	0.00238	0.00546%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0125	0.0123	1.42%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.000022	0.000025	0.000003	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000074	0.0000063	0.0000011	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.67	9.64	0.300%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000049	0.000046	0.000004	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00109	0.00112	0.00002	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00030	0.00030	0.000005	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00140	0.00138	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.856	0.861	0.618%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000230	0.000228	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0017	0.0019	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	3.10	3.02	2.50%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0580	0.0585	0.823%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000200	0.000199	0.000001	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00104	0.00100	0.00004	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.00	1.01	0.462%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00246	0.00247	0.211%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000134	0.000134	0.0000005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1512031) - continued											
WP2415267-001	SW-08	Silicon, total	7440-21-3	E420	0.10	mg/L	1.45	1.39	4.72%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.50	1.50	0.0266%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0245	0.0240	1.81%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	0.51	0.006	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000011	<0.000010	0.000001	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00013	0.00014	0.0000005	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0207	0.0198	4.64%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000205	0.000211	2.88%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00155	0.00153	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00057	0.00052	0.00005	Diff <2x LOR	----
Total Metals (QC Lot: 1512363)											
WP2414858-016	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	0.0000051	0.0000001	Diff <2x LOR	----
Total Metals (QC Lot: 1514735)											
WP2414948-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1510554)											
WP2415219-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00011	<0.00010	0.000008	Diff <2x LOR	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.051	0.052	0.001	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000068	0.0000073	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	0.168	0.173	0.006	Diff <2x LOR	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00222	0.00234	5.36%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1510554) - continued											
WP2415219-002	Anonymous	Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.111	0.109	1.69%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.097	0.097	0.0006	Diff <2x LOR	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.81	4.83	0.538%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.00142	0.00141	0.000009	Diff <2x LOR	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0228	0.0235	2.83%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1514739)											
WP2415189-018	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1501347)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1501348)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1501354)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1501971)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1501972)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1505614)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1500534)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1500535)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1500536)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1500537)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1503489)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1504324)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1504744)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1504745)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1504746)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1503747)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1504561)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1504561) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1512029)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1512030)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1512031)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1512031) - continued						
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1512363)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1514735)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1510554)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1510554) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1510555)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1510556)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1514739)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1501347)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	99.8	85.0	115	----
Physical Tests (QCLot: 1501348)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.7	85.0	115	----
Physical Tests (QCLot: 1501354)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1501970)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1501971)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.7	90.0	110	----
Physical Tests (QCLot: 1501972)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1505614)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1500534)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1500535)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.7	90.0	110	----
Anions and Nutrients (QCLot: 1500536)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1500537)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1503489)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	103	80.0	120	----
Anions and Nutrients (QCLot: 1504324)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.7	85.0	115	----
Cyanides (QCLot: 1504744)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	83.8	80.0	120	----
Cyanides (QCLot: 1504745)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	92.4	80.0	120	----
Cyanides (QCLot: 1504746)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Cyanides (QCLot: 1504746) - continued									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	92.5	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1503747)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	109	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1504561)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100.0	80.0	120	----
Total Metals (QCLot: 1512029)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Total Metals (QCLot: 1512030)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Total Metals (QCLot: 1512031)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	105	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	97.2	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.8	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	97.0	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.3	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	103	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	94.4	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.6	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1512031) - continued									
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	104	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.1	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	87.3	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.3	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.6	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.5	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.5	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	98.6	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	103	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	102	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	98.2	80.0	120	----
Total Metals (QCLot: 1512363)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	----
Total Metals (QCLot: 1514735)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1510554)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.0	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.9	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.0	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.0	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	98.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.8	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.2	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1510554) - continued									
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.2	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	98.8	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	89.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.8	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.2	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.7	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.5	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.9	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	93.7	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	----
Dissolved Metals (QCLot: 1510555)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	102	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1500534)										
WP2415267-001	SW-08	Sulfate (as SO4)	14808-79-8	E235.SO4	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1500535)										
WP2415267-001	SW-08	Nitrate (as N)	14797-55-8	E235.NO3-L	2.49 mg/L	2.5 mg/L	99.4	75.0	125	----
Anions and Nutrients (QCLot: 1500536)										
WP2415267-001	SW-08	Nitrite (as N)	14797-65-0	E235.NO2-L	0.506 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1500537)										
WP2415267-001	SW-08	Chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1503489)										
WP2415189-017	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.232 mg/L	0.25 mg/L	93.0	70.0	130	----
Anions and Nutrients (QCLot: 1504324)										
WP2415262-018	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.100 mg/L	0.1 mg/L	100	75.0	125	----
Cyanides (QCLot: 1504744)										
WP2415267-001	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	2.04 mg/L	2.5 mg/L	81.8	75.0	125	----
Cyanides (QCLot: 1504745)										
WP2415267-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.118 mg/L	0.125 mg/L	94.0	75.0	125	----
Cyanides (QCLot: 1504746)										
WP2415267-001	SW-08	Cyanide, free	----	E339-L	0.116 mg/L	0.125 mg/L	92.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1503747)										
WP2414718-004	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1504561)										
WP2414943-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.56 mg/L	5 mg/L	91.2	70.0	130	----
Total Metals (QCLot: 1512029)										
WP2415267-001	SW-08	Chromium, total	7440-47-3	E420.Cr-L	0.0458 mg/L	0.04 mg/L	114	70.0	130	----
Total Metals (QCLot: 1512030)										
WP2415267-001	SW-08	Phosphorus, total	7723-14-0	E420.P-L	11.4 mg/L	10 mg/L	114	70.0	130	----
Total Metals (QCLot: 1512031)										
WP2415267-001	SW-08	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0233 mg/L	0.02 mg/L	116	70.0	130	----
		Barium, total	7440-39-3	E420	0.0223 mg/L	0.02 mg/L	112	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0454 mg/L	0.04 mg/L	113	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1512031) - continued										
WP2415267-001	SW-08	Bismuth, total	7440-69-9	E420	0.0116 mg/L	0.01 mg/L	116	70.0	130	----
		Boron, total	7440-42-8	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00462 mg/L	0.004 mg/L	116	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0118 mg/L	0.01 mg/L	118	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0458 mg/L	0.04 mg/L	114	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0227 mg/L	0.02 mg/L	113	70.0	130	----
		Copper, total	7440-50-8	E420	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Iron, total	7439-89-6	E420	2.27 mg/L	2 mg/L	113	70.0	130	----
		Lead, total	7439-92-1	E420	0.0229 mg/L	0.02 mg/L	114	70.0	130	----
		Lithium, total	7439-93-2	E420	0.111 mg/L	0.1 mg/L	111	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0452 mg/L	0.04 mg/L	113	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.4 mg/L	10 mg/L	114	70.0	130	----
		Potassium, total	7440-09-7	E420	4.61 mg/L	4 mg/L	115	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0461 mg/L	0.04 mg/L	115	70.0	130	----
		Silicon, total	7440-21-3	E420	9.87 mg/L	10 mg/L	98.7	70.0	130	----
		Silver, total	7440-22-4	E420	0.00468 mg/L	0.004 mg/L	117	70.0	130	----
		Sodium, total	7440-23-5	E420	2.28 mg/L	2 mg/L	114	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	22.5 mg/L	20 mg/L	113	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00441 mg/L	0.004 mg/L	110	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0227 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, total	7440-31-5	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0392 mg/L	0.04 mg/L	98.1	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00443 mg/L	0.004 mg/L	111	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Zinc, total	7440-66-6	E420	0.459 mg/L	0.4 mg/L	115	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1512363)										
WP2414916-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000981 mg/L	0 mg/L	98.1	70.0	130	----
Total Metals (QCLot: 1514735)										
WP2414948-002	Anonymous	Mercury, total	7439-97-6	E508	0.000101 mg/L	0 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1510554)										
WP2415219-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.226 mg/L	0.2 mg/L	113	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0225 mg/L	0.02 mg/L	112	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1510554) - continued										
WP2415219-002	Anonymous	Beryllium, dissolved	7440-41-7	E421	0.0458 mg/L	0.04 mg/L	114	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00455 mg/L	0.004 mg/L	114	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	4.49 mg/L	4 mg/L	112	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0243 mg/L	0.02 mg/L	122	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.22 mg/L	2 mg/L	111	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	1.13 mg/L	1 mg/L	113	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0439 mg/L	0.04 mg/L	110	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.2 mg/L	10 mg/L	112	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.54 mg/L	4 mg/L	114	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0456 mg/L	0.04 mg/L	114	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.80 mg/L	10 mg/L	98.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00435 mg/L	0.004 mg/L	109	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	22.2 mg/L	20 mg/L	111	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00438 mg/L	0.004 mg/L	109	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00446 mg/L	0.004 mg/L	111	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.111 mg/L	0.1 mg/L	111	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.463 mg/L	0.4 mg/L	116	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1514739)										
WP2415224-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000102 mg/L	0 mg/L	102	70.0	130	----

Report To		Reports / Recipients		Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)		☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A		☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1	ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2	hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3	christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☐ YES ☐ NO	Email 4	jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Email 5	curtis.bloemberg@kinross.com	
Company:		Email 6	emily.meek@kinross.com	Analysis Request
		Email 7	aaron.peloquin@kinross.com	
		Email 8	amy.elliot@wsp.com	
		Email 9	dale.klodnicki@wsp.com	
Contact:		Email 10	matthew.wilson4@wsp.com	

Project Information		Invoice Recipients			
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX			
Job #:	PPR-022-3	Email 1	invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact:	Judy Dalmaijer	Sampler:	CB/AP

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M			Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-08	16/06/24	14:00	water	9	X			6.99	21	65.3
	SW-04	16/06/24	12:45	water	9	X			6.87	20.8	71.5
	SW-01	16/06/24	11:20	water	9	X			6.28	20	41.9
	DUP-01	16/06/24	11:20	water	9	X			6.28	20	41.9
	FIELD-01	16/06/24	11:20	water	9	X			X	X	X

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by:		Time:	Received by:	Date:	Time:	Received by:	Time:
Jacob McFee		7:35		JUN 18 2024			

June 17 2024

16.4°C

Environmental Division
Winnipeg
Work Order Reference
WP2415267

Telephone : +1 204 255 9720

Sample Intake						
Client:	Arcel Beer					
Cheque Enclosed with CoC		Yes		No		
Priority/Emergency Required (circle one)		Yes		No		
Time Sensitive Hold Time (circle one)		Yes		No		
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:						
Green/White	10x60, 5x250	Yellow/Black		10x40		
Purple/White	10x100	Light blue/White				
Warm red/White	10x125	Orange/Black				
Dark Green/White	5x60	Dark Blue/White				
Grey/black		Black/white				
Other:						
Additional Comments:						

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2415380**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 19-Jun-2024 09:30
PO	: PPR-022-3	Date Analysis Commenced	: 19-Jun-2024
C-O-C number	: ----	Issue Date	: 28-Jun-2024 13:07
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	SW-09	CR-DS	CR-FDP	----
					Client sampling date / time	17-Jun-2024 16:20	17-Jun-2024 14:00	17-Jun-2024 12:20	17-Jun-2024 11:40	----
						WP2415380-001	WP2415380-002	WP2415380-003	WP2415380-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.24	7.17	7.32	7.43	----
Temperature, field	----	EF001/WP	0.10	°C		19.8	18.7	16.9	16.6	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	2.6	2.1	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		26.8	30.2	27.2	26.6	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		26.8	30.2	27.2	26.6	----
Conductivity	----	E100/WP	1.0	µS/cm		81.6	66.8	79.4	79.3	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		35.8	35.6	35.5	34.7	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		36.2	37.0	36.1	35.7	----
pH	----	E108/WP	0.10	pH units		7.39	7.28	7.32	7.38	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		72.6	74.3	67.6	56.6	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		4.7	19.0	8.5	8.0	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0074	0.0205	0.0112	0.0142	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.79	0.21	2.61	2.80	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0080	0.0505	0.0096	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0080	0.0505	0.0096	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0250	0.0372	0.0265	0.0263	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		5.81	0.64	5.36	5.83	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	SW-09	CR-DS	CR-FDP	----
					Client sampling date / time	17-Jun-2024 16:20	17-Jun-2024 14:00	17-Jun-2024 12:20	17-Jun-2024 11:40	----
						WP2415380-001	WP2415380-002	WP2415380-003	WP2415380-004	--------
						Result	Result	Result	Result	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		14.6	22.4	14.2	12.5	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.118	0.289	0.133	0.149	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00027	<0.00010	0.00025	0.00026	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00543	0.00230	0.00520	0.00546	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00812	0.0113	0.00812	0.00785	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000080	0.0000087	0.0000058	<0.0000050	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.1	9.64	9.95	9.85	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000016	0.000030	0.000017	0.000018	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00032	0.00083	0.00036	0.00039	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00083	<0.00050	<0.00050	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00012	0.00030	0.00014	0.00014	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00159	0.00130	0.00135	0.00145	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.166	0.728	0.230	0.221	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000098	0.000229	0.000105	0.000118	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0016	0.0019	0.0016	0.0015	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.68	3.13	2.73	2.69	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00830	0.0580	0.0121	0.0103	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000162	0.000151	0.000138	0.000141	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00136	0.00106	0.00132	0.00139	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.032	<0.030	<0.030	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.05	0.953	0.961	0.992	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00180	0.00218	0.00180	0.00190	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	SW-09	CR-DS	CR-FDP	----
					Client sampling date / time	17-Jun-2024 16:20	17-Jun-2024 14:00	17-Jun-2024 12:20	17-Jun-2024 11:40	----
						WP2415380-001	WP2415380-002	WP2415380-003	WP2415380-004	--------
						Result	Result	Result	Result	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000147	0.000114	0.000116	<0.000050	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.04	0.88	1.86	1.94	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.63	1.49	2.48	2.63	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0300	0.0236	0.0277	0.0285	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.22	0.55	2.20	2.35	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00011	<0.00010	<0.00010	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	Not Detected	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00535	0.0127	0.00683	0.00779	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000077	0.000213	0.000081	0.000080	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00055	0.00139	0.00061	0.00064	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00024	0.00051	0.00021	<0.00020	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0392	0.0952	0.0334	0.0243	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00027	<0.00010	0.00025	0.00026	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00451	0.00200	0.00437	0.00458	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00732	0.00916	0.00692	0.00669	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.1	9.41	9.99	9.85	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00016	0.00040	0.00018	0.00014	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00010	<0.00010	<0.00010	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-REF	SW-09	CR-DS	CR-FDP	----
					Client sampling date / time	17-Jun-2024 16:20	17-Jun-2024 14:00	17-Jun-2024 12:20	17-Jun-2024 11:40	----
						WP2415380-001	WP2415380-002	WP2415380-003	WP2415380-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00130	0.00094	0.00116	0.00118	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.056	0.381	0.075	0.049	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	0.000077	<0.000050	<0.000050	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0017	0.0017	0.0017	0.0016	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.56	2.94	2.57	2.46	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00313	0.0242	0.00358	0.00221	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000161	0.000201	0.000185	0.000154	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00107	0.00070	0.00104	0.00101	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.00	0.884	0.922	0.921	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00159	0.00165	0.00154	0.00153	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000094	0.000114	0.000056	0.000081	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.76	0.588	1.61	1.67	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	Not Detected	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.49	1.46	2.47	2.48	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0282	0.0231	0.0277	0.0280	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.17	0.60	2.09	2.25	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00010	<0.00010	<0.00010	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	<0.00010	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00111	0.00292	0.00086	0.00065	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000072	0.000193	0.000073	0.000067	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00076	<0.00050	<0.00050	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	Not Detected	Not Detected	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	0.00045	<0.00030	<0.00030	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-REF	SW-09	CR-DS	CR-FDP	----
					Client sampling date / time	17-Jun-2024 16:20	17-Jun-2024 14:00	17-Jun-2024 12:20	17-Jun-2024 11:40	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2415380-001	WP2415380-002	WP2415380-003	WP2415380-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2415380**	Page	: 1 of 22
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 19-Jun-2024 09:30
PO	: PPR-022-3	Issue Date	: 28-Jun-2024 13:06
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG4-1512831 001	----	Magnesium, total	7439-95-4	E420	0.0060 B mg/L	0.005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-DS	E298	17-Jun-2024	21-Jun-2024	28 days	4 days	✓	21-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	17-Jun-2024	21-Jun-2024	28 days	4 days	✓	21-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	17-Jun-2024	21-Jun-2024	28 days	4 days	✓	21-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-09	E298	17-Jun-2024	21-Jun-2024	28 days	4 days	✓	21-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.Cl-L	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.Cl-L	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO3-L	17-Jun-2024	19-Jun-2024	7 days	2 days	✓	19-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	17-Jun-2024	19-Jun-2024	7 days	2 days	✓	19-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	17-Jun-2024	19-Jun-2024	7 days	2 days	✓	19-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO3-L	17-Jun-2024	19-Jun-2024	7 days	2 days	✓	19-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO2-L	17-Jun-2024	19-Jun-2024	7 days	2 days	✓	19-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	17-Jun-2024	19-Jun-2024	7 days	2 days	✓	19-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	17-Jun-2024	19-Jun-2024	7 days	2 days	✓	19-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO2-L	17-Jun-2024	19-Jun-2024	7 days	2 days	✓	19-Jun-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-09	E235.SO4	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	21-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	21-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	21-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	21-Jun-2024	28 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E339-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E336-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-09	E336-L	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	21-Jun-2024	14 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-DS	E421.Cr-L	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-FDP	E421.Cr-L	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-REF	E421.Cr-L	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-09	E421.Cr-L	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-DS	E509	17-Jun-2024	26-Jun-2024	28 days	9 days	✓	26-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	17-Jun-2024	26-Jun-2024	28 days	9 days	✓	26-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	17-Jun-2024	26-Jun-2024	28 days	9 days	✓	26-Jun-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	17-Jun-2024	26-Jun-2024	28 days	9 days	✓	26-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-09	E421.P-L	17-Jun-2024	24-Jun-2024	180 days	7 days	✓	24-Jun-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-DS	EF001	17-Jun-2024	----	----	----		20-Jun-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	17-Jun-2024	----	----	----		20-Jun-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	17-Jun-2024	----	----	----		20-Jun-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-09	EF001	17-Jun-2024	----	----	----		20-Jun-2024	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-DS	E358-L	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-09	E358-L	17-Jun-2024	20-Jun-2024	28 days	3 days	✓	20-Jun-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
CR-DS	E283	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] CR-FDP	E283	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] CR-REF	E283	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-09	E283	17-Jun-2024	21-Jun-2024	14 days	4 days	✓	22-Jun-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	17-Jun-2024	19-Jun-2024	14 days	2 days	✓	19-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	17-Jun-2024	19-Jun-2024	14 days	2 days	✓	19-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	17-Jun-2024	19-Jun-2024	14 days	2 days	✓	19-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-09	E290	17-Jun-2024	19-Jun-2024	14 days	2 days	✓	19-Jun-2024	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	17-Jun-2024	19-Jun-2024	28 days	2 days	✓	19-Jun-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	17-Jun-2024	19-Jun-2024	14 days	2 days	✓	19-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	17-Jun-2024	19-Jun-2024	14 days	2 days	✓	19-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	17-Jun-2024	19-Jun-2024	14 days	2 days	✓	19-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	17-Jun-2024	19-Jun-2024	14 days	2 days	✓	19-Jun-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	17-Jun-2024	----	----	----		20-Jun-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	17-Jun-2024	----	----	----		20-Jun-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	17-Jun-2024	----	----	----		20-Jun-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	17-Jun-2024	----	----	----		20-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	17-Jun-2024	----	----	----		20-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	17-Jun-2024	----	----	----		20-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	17-Jun-2024	----	----	----		20-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	17-Jun-2024	----	----	----		20-Jun-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	17-Jun-2024	26-Jun-2024	28 days	9 days	✓	26-Jun-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	17-Jun-2024	26-Jun-2024	28 days	9 days	✓	26-Jun-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	17-Jun-2024	26-Jun-2024	28 days	9 days	✓	26-Jun-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	17-Jun-2024	26-Jun-2024	28 days	9 days	✓	26-Jun-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
CR-FDP	E420.P-L	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
CR-REF	E420.P-L	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-09	E420.P-L	17-Jun-2024	25-Jun-2024	180 days	8 days	✓	25-Jun-2024	180 days	8 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1506853	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1503488	1	8	12.5	5.0	✓
Ammonia by Fluorescence	E298	1507057	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1502529	1	6	16.6	5.0	✓
Conductivity in Water	E100	1503487	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1510555	0	10	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1514739	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1510554	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503747	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1510556	0	10	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1506950	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1502530	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1502531	1	7	14.2	5.0	✓
pH by Meter	E108	1503486	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1502533	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1503697	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1512833	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1506946	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1514735	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1512831	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1506080	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1512834	0	4	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1503710	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1506949	1	5	20.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1506853	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1503488	1	8	12.5	5.0	✓
Ammonia by Fluorescence	E298	1507057	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1502529	1	6	16.6	5.0	✓
Conductivity in Water	E100	1503487	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1510555	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1514739	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1510554	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503747	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1510556	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1506950	1	5	20.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1502530	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1502531	1	7	14.2	5.0	✓
pH by Meter	E108	1503486	1	14	7.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1502533	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1503697	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1512833	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1506946	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1514735	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1512831	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1506080	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1512834	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1503710	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1506949	1	5	20.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1506853	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1503488	1	8	12.5	5.0	✓
Ammonia by Fluorescence	E298	1507057	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1502529	1	6	16.6	5.0	✓
Conductivity in Water	E100	1503487	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1510555	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1514739	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1510554	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503747	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1510556	1	10	10.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1506950	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1502530	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1502531	1	7	14.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1502533	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1503697	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1512833	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1506946	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1514735	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1512831	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1506080	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1512834	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1503710	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1506949	1	5	20.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1507057	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1502529	1	6	16.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1510555	0	10	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1514739	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1510554	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1503747	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1510556	0	10	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1506950	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1502530	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1502531	1	7	14.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1502533	1	14	7.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1512833	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1506946	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1514735	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1512831	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1506080	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1512834	0	4	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1506949	1	5	20.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2415380**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 19-Jun-2024 09:30
PO	: PPR-022-3	Date Analysis Commenced	: 19-Jun-2024
C-O-C number	: ----	Issue Date	: 28-Jun-2024 13:09
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1503486)											
WP2415380-001	CR-REF	pH	----	E108	0.10	pH units	7.39	7.33	0.815%	4%	----
Physical Tests (QC Lot: 1503487)											
WP2415380-001	CR-REF	Conductivity	----	E100	1.0	µS/cm	81.6	82.9	1.58%	10%	----
Physical Tests (QC Lot: 1503488)											
WP2415380-001	CR-REF	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	26.8	27.1	1.11%	20%	----
Physical Tests (QC Lot: 1503697)											
WP2415189-006	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	48.3	49.6	1.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1503710)											
WP2415375-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	10.7	11.1	3.06%	20%	----
Physical Tests (QC Lot: 1506853)											
WP2415268-003	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.5	4.1	0.4	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1502529)											
WP2415362-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	7.90	7.88	0.275%	20%	----
Anions and Nutrients (QC Lot: 1502530)											
WP2415362-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0698	0.0698	0.0430%	20%	----
Anions and Nutrients (QC Lot: 1502531)											
WP2415362-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1502533)											
WP2415362-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	2.98	2.98	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1506080)											
VA24B4111-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0310	0.0306	1.43%	20%	----
Anions and Nutrients (QC Lot: 1507057)											
WP2415362-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0092	0.0087	0.0005	Diff <2x LOR	----
Cyanides (QC Lot: 1506946)											
WP2415380-001	CR-REF	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1506949)											
WP2415380-001	CR-REF	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1506950)											
WP2415380-001	CR-REF	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1503747)											
WP2414718-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	9.53	8.81	7.87%	20%	----
Organic / Inorganic Carbon (QC Lot: 1504561)											
WP2414943-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.9	11.8	0.922%	20%	----
Total Metals (QC Lot: 1512831)											
WP2415330-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0743	0.0739	0.604%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00031	0.00031	0.000006	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00753	0.00771	2.34%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	0.000091	0.000080	0.000011	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000077	0.0000091	0.0000014	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	12.0	12.2	1.51%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0164	0.0165	1.08%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.058	0.058	0.0007	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000895	0.000901	0.601%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0011	0.0011	0.000005	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	3.86	3.82	1.09%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00072	0.00069	0.00003	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000144	0.000140	0.000004	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00068	0.00066	0.00002	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.868	0.865	0.359%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00124	0.00137	0.00013	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.14	1.14	0.0920%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	16.0	16.1	0.399%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0239	0.0232	3.01%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	12.1	11.5	5.24%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1512831) - continued											
WP2415330-001	Anonymous	Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0061	0.0062	0.0001	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1514735)											
WP2414948-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1510554)											
WP2415219-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00011	<0.00010	0.000008	Diff <2x LOR	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.051	0.052	0.001	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000068	0.0000073	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	0.168	0.173	0.006	Diff <2x LOR	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00222	0.00234	5.36%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.111	0.109	1.69%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.097	0.097	0.0006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1510554) - continued											
WP2415219-002	Anonymous	Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.81	4.83	0.538%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.00142	0.00141	0.000009	Diff <2x LOR	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0228	0.0235	2.83%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1514739)											
WP2415189-018	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1503487)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1503488)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1503697)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1503710)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1506853)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1502529)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1502530)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1502531)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1502533)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1506080)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1507057)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1506946)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1506949)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1506950)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1503747)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1504561)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1512831)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1512831) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	# 0.0060	B
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1512831) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1512833)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1512834)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1514735)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1510554)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1510554) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1510555)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1510556)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1514739)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1503486)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1503487)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1503488)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	98.7	85.0	115	----
Physical Tests (QCLot: 1503697)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.0	85.0	115	----
Physical Tests (QCLot: 1503710)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	86.3	85.0	115	----
Physical Tests (QCLot: 1506853)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.2	85.0	115	----
Anions and Nutrients (QCLot: 1502529)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1502530)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1502531)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1502533)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1506080)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	105	80.0	120	----
Anions and Nutrients (QCLot: 1507057)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Cyanides (QCLot: 1506946)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.7	80.0	120	----
Cyanides (QCLot: 1506949)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	96.5	80.0	120	----
Cyanides (QCLot: 1506950)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.3	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1503747)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	109	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1504561)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100.0	80.0	120	----
Total Metals (QCLot: 1512831)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.4	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	97.3	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	99.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	101	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.7	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.9	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	99.0	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	99.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1512831) - continued									
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	99.9	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.7	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.1	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.8	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.5	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	98.9	80.0	120	----
Total Metals (QCLot: 1512833)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1512834)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Total Metals (QCLot: 1514735)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1510554)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.0	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.9	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.0	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.0	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	99.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	98.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.8	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.2	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	96.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.5	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.2	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1510554) - continued									
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	98.8	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	89.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.8	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.2	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.7	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.5	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.9	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	93.7	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	----
Dissolved Metals (QCLot: 1510555)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	102	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1502529)										
WP2415362-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1502530)										
WP2415362-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.58 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1502531)										
WP2415362-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.519 mg/L	0.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1502533)										
WP2415362-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1506080)										
VA24B4111-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.281 mg/L	0.25 mg/L	112	70.0	130	----
Anions and Nutrients (QCLot: 1507057)										
WP2415362-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.1000 mg/L	0.1 mg/L	100.0	75.0	125	----
Cyanides (QCLot: 1506946)										
WP2415380-001	CR-REF	Cyanide, strong acid dissociable (Total)	----	E333-L	0.204 mg/L	0.25 mg/L	81.6	75.0	125	----
Cyanides (QCLot: 1506949)										
WP2415380-001	CR-REF	Cyanide, weak acid dissociable	----	E336-L	0.120 mg/L	0.125 mg/L	96.3	75.0	125	----
Cyanides (QCLot: 1506950)										
WP2415380-001	CR-REF	Cyanide, free	----	E339-L	0.120 mg/L	0.125 mg/L	96.2	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1503747)										
WP2414718-004	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1504561)										
WP2414943-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.56 mg/L	5 mg/L	91.2	70.0	130	----
Total Metals (QCLot: 1512831)										
WP2415330-001	Anonymous	Aluminum, total	7429-90-5	E420	0.224 mg/L	0.2 mg/L	112	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0188 mg/L	0.02 mg/L	94.1	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0229 mg/L	0.02 mg/L	114	70.0	130	----
		Barium, total	7440-39-3	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0466 mg/L	0.04 mg/L	116	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0112 mg/L	0.01 mg/L	112	70.0	130	----
		Boron, total	7440-42-8	E420	0.113 mg/L	0.1 mg/L	113	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00441 mg/L	0.004 mg/L	110	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0111 mg/L	0.01 mg/L	111	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0461 mg/L	0.04 mg/L	115	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1512831) - continued										
WP2415330-001	Anonymous	Cobalt, total	7440-48-4	E420	0.0227 mg/L	0.02 mg/L	114	70.0	130	----
		Copper, total	7440-50-8	E420	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Iron, total	7439-89-6	E420	2.28 mg/L	2 mg/L	114	70.0	130	----
		Lead, total	7439-92-1	E420	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Lithium, total	7439-93-2	E420	0.116 mg/L	0.1 mg/L	116	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0454 mg/L	0.04 mg/L	113	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.6 mg/L	10 mg/L	116	70.0	130	----
		Potassium, total	7440-09-7	E420	4.45 mg/L	4 mg/L	111	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0444 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, total	7440-21-3	E420	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, total	7440-22-4	E420	0.00418 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	22.8 mg/L	20 mg/L	114	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00439 mg/L	0.004 mg/L	110	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0223 mg/L	0.02 mg/L	112	70.0	130	----
		Tin, total	7440-31-5	E420	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00438 mg/L	0.004 mg/L	110	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Zinc, total	7440-66-6	E420	0.454 mg/L	0.4 mg/L	114	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1514735)										
WP2414948-002	Anonymous	Mercury, total	7439-97-6	E508	0.000101 mg/L	0 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1510554)										
WP2415219-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.226 mg/L	0.2 mg/L	113	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0458 mg/L	0.04 mg/L	114	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00455 mg/L	0.004 mg/L	114	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	4.49 mg/L	4 mg/L	112	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1510554) - continued										
WP2415219-002	Anonymous	Copper, dissolved	7440-50-8	E421	0.0243 mg/L	0.02 mg/L	122	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.22 mg/L	2 mg/L	111	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	1.13 mg/L	1 mg/L	113	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0439 mg/L	0.04 mg/L	110	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.2 mg/L	10 mg/L	112	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.54 mg/L	4 mg/L	114	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0456 mg/L	0.04 mg/L	114	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.80 mg/L	10 mg/L	98.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00435 mg/L	0.004 mg/L	109	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	22.2 mg/L	20 mg/L	111	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00438 mg/L	0.004 mg/L	109	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00446 mg/L	0.004 mg/L	111	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.111 mg/L	0.1 mg/L	111	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.463 mg/L	0.4 mg/L	116	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1514739)										
WP2415224-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000102 mg/L	0 mg/L	102	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	CR-REF	17/06/2024	16:20	Water		X			7.24	19.8	77
	SW-09	17/06/2024	14:00	Water		X			7.17	18.7	61.7
	CR-DS	17/06/2024	12:20	Water		X			7.32	16.9	69.7
	CR-FDP	17/06/2024	11:40	Water		X			7.43	16.6	69.6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: JM	June 18th 2024	Time: 8:20	Received by:	Date: JUN 19 2024	Time:	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2415380

Telephone : +1 204 255 9720

12-22

ALS Canada Ltd.

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CERTIFICATE OF ANALYSIS

Work Order	: **WP2415532**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jun-2024 09:50
PO	: PPR-022-3	Date Analysis Commenced	: 20-Jun-2024
C-O-C number	: ----	Issue Date	: 04-Jul-2024 10:37
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
HTD	*Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-11	SW-TR	DUP-02	FIELD-02	----
					Client sampling date / time	18-Jun-2024 12:20	18-Jun-2024 15:05	18-Jun-2024 15:05	18-Jun-2024 15:05	----
						WP2415532-001	WP2415532-002	WP2415532-003	WP2415532-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.60	3.86	3.86	----	----
Temperature, field	----	EF001/WP	0.10	°C		13.0	16.8	16.8	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		7.0	18.5	17.3	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		39.1	<1.0	<1.0	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		39.1	<1.0	<1.0	<1.0	----
Conductivity	----	E100/WP	1.0	µS/cm		108	31.9	31.0	Not Detected	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		52.6	8.16	8.06	<0.50	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		57.0	7.89	8.15	<0.50	----
pH	----	E108/WP	0.10	pH units		7.15	4.37	4.38	5.34	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		189	90.0 HTD, RRV	49.0	<3.0	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		45.6	7.4	4.0	<1.0	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0298	0.0055	0.0052	<0.0050	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		4.56	<0.10	<0.10	Not Detected	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0145	0.0129	0.0058	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0145	0.0129	0.0058	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0872	0.0371	0.0268	<0.0020	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.77	<0.30	<0.30	<0.30	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0015	<0.0010	<0.0010	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0018	<0.0010	<0.0010	<0.0010	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-11	SW-TR	DUP-02	FIELD-02	----
					Client sampling date / time	18-Jun-2024 12:20	18-Jun-2024 15:05	18-Jun-2024 15:05	18-Jun-2024 15:05	----
						WP2415532-001	WP2415532-002	WP2415532-003	WP2415532-004	--------
						Result	Result	Result	Result	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0014	<0.0010	<0.0010	<0.0010	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		48.4	47.8	48.8	0.89	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		1.58	0.482	0.487	<0.0030	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00017	0.00016	0.00017	<0.00010	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00515	0.00541	0.00552	<0.00010	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0340	0.00600	0.00604	Not Detected	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000066	<0.000020	0.000027	Not Detected	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	Not Detected	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.017	<0.010	<0.010	Not Detected	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000817	0.0000146	0.0000188	Not Detected	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		14.1	2.02	2.11	Not Detected	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000118	<0.000010	0.000010	Not Detected	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00332	0.00070	0.00080	<0.00010	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00332	0.00070	0.00080	Not Detected	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00136	0.00038	0.00040	Not Detected	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00484	0.00062	0.00062	Not Detected	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		1.87	1.03	1.04	Not Detected	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000743	0.000449	0.000450	Not Detected	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0042	0.0011	0.0012	<0.0010	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		5.28	0.692	0.700	Not Detected	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.136	0.0150	0.0155	Not Detected	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000106	0.0000078	0.0000083	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000420	0.000052	<0.000050	Not Detected	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00448	0.00080	0.00081	Not Detected	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.044	<0.030	<0.030	<0.030	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.77	<0.050	<0.050	Not Detected	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00449	<0.00020	0.00021	Not Detected	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-11	SW-TR	DUP-02	FIELD-02	----
					Client sampling date / time	18-Jun-2024 12:20	18-Jun-2024 15:05	18-Jun-2024 15:05	18-Jun-2024 15:05	----
						WP2415532-001	WP2415532-002	WP2415532-003	WP2415532-004	--------
						Result	Result	Result	Result	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000372	<0.000050	<0.000050	Not Detected	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		7.17	3.41	3.58	<0.10	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	Not Detected	Not Detected	Not Detected	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		6.22	0.721	0.851	Not Detected	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0406	0.0111	0.0113	Not Detected	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.92	<0.50	<0.50	<0.50	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000021	<0.000010	<0.000010	Not Detected	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00032	0.00013	0.00013	Not Detected	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	Not Detected	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0408	0.00423	0.00440	Not Detected	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00034	Not Detected	Not Detected	Not Detected	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000225	0.000077	0.000079	Not Detected	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00395	0.00092	0.00095	<0.00050	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0069	<0.0030	0.0037	Not Detected	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00198	0.00034	0.00035	Not Detected	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.526	0.494	0.487	<0.0010	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00017	0.00016	0.00017	Not Detected	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00477	0.00541	0.00536	Not Detected	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0193	0.00578	0.00614	<0.00010	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000042	0.000021	0.000021	Not Detected	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.012	<0.010	<0.010	Not Detected	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000622	0.0000159	0.0000157	Not Detected	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		13.5	2.13	2.11	Not Detected	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00140	0.00072	0.00077	<0.00010	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00140	0.00072	0.00077	Not Detected	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00084	0.00038	0.00037	Not Detected	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-11	SW-TR	DUP-02	FIELD-02	----
					Client sampling date / time	18-Jun-2024 12:20	18-Jun-2024 15:05	18-Jun-2024 15:05	18-Jun-2024 15:05	----
						WP2415532-001	WP2415532-002	WP2415532-003	WP2415532-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00334	0.00063	0.00062	Not Detected	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.765	1.00	1.00	Not Detected	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000219	0.000455	0.000460	Not Detected	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0031	0.0013	0.0012	<0.0010	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.58	0.690	0.678	Not Detected	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.112	0.0152	0.0150	Not Detected	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000097	0.0000064	0.0000058	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000523	<0.000050	0.000052	Not Detected	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00312	0.00080	0.00087	Not Detected	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	Not Detected	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.59	<0.050	<0.050	Not Detected	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00212	<0.00020	<0.00020	Not Detected	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000100	<0.000050	0.000192 RRV	Not Detected	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		5.44	3.32	3.25	Not Detected	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	Not Detected	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		6.02	0.732	0.814	Not Detected	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0370	0.0110	0.0115	Not Detected	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.01	Not Detected	<0.50	Not Detected	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00037	0.00014	0.00014	Not Detected	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.0141	0.00419	0.00420	Not Detected	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00044	Not Detected	Not Detected	Not Detected	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000164	0.000074	0.000077	Not Detected	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00196	0.00084	0.00082	Not Detected	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0045	0.0040	0.0050	<0.0010	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00151	0.00038	0.00038	Not Detected	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-11	SW-TR	DUP-02	FIELD-02	----
					Client sampling date / time	18-Jun-2024 12:20	18-Jun-2024 15:05	18-Jun-2024 15:05	18-Jun-2024 15:05	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2415532-001	WP2415532-002	WP2415532-003	WP2415532-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2415532**	Page	: 1 of 21
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 20-Jun-2024 09:50
PO	: PPR-022-3	Issue Date	: 04-Jul-2024 10:38
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-02	E298	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) FIELD-02	E298	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.Cl-L	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.Cl-L	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.Cl-L	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO3-L	18-Jun-2024	20-Jun-2024	7 days	2 days	✓	20-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.NO3-L	18-Jun-2024	20-Jun-2024	7 days	2 days	✓	20-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO3-L	18-Jun-2024	20-Jun-2024	7 days	2 days	✓	20-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO3-L	18-Jun-2024	20-Jun-2024	7 days	2 days	✓	20-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] DUP-02	E235.NO2-L	18-Jun-2024	20-Jun-2024	7 days	2 days	✓	20-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] FIELD-02	E235.NO2-L	18-Jun-2024	20-Jun-2024	7 days	2 days	✓	20-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO2-L	18-Jun-2024	20-Jun-2024	7 days	2 days	✓	20-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO2-L	18-Jun-2024	20-Jun-2024	7 days	2 days	✓	20-Jun-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP-02	E235.SO4	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] FIELD-02	E235.SO4	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-11	E235.SO4	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-TR	E235.SO4	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-02	E372-U	18-Jun-2024	21-Jun-2024	28 days	3 days	✓	24-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) FIELD-02	E372-U	18-Jun-2024	21-Jun-2024	28 days	3 days	✓	24-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	18-Jun-2024	21-Jun-2024	28 days	3 days	✓	24-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	18-Jun-2024	21-Jun-2024	28 days	3 days	✓	24-Jun-2024	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-02	E339-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-02	E339-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E339-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E333-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-02	E333-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-02	E336-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
FIELD-02	E336-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	24-Jun-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.Cr-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
FIELD-02	E421.Cr-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DUP-02	E509	18-Jun-2024	27-Jun-2024	28 days	9 days	✓	27-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
FIELD-02	E509	18-Jun-2024	27-Jun-2024	28 days	9 days	✓	27-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-11	E509	18-Jun-2024	27-Jun-2024	28 days	9 days	✓	27-Jun-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	18-Jun-2024	27-Jun-2024	28 days	9 days	✓	27-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-02	E421	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) FIELD-02	E421	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-11	E421	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-02	E421.P-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) FIELD-02	E421.P-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-02	EF001	18-Jun-2024	----	----	----		21-Jun-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	18-Jun-2024	----	----	----		21-Jun-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	18-Jun-2024	----	----	----		21-Jun-2024	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DUP-02	E358-L	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
FIELD-02	E358-L	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-11	E358-L	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	18-Jun-2024	25-Jun-2024	28 days	7 days	✓	25-Jun-2024	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
DUP-02	E283	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
FIELD-02	E283	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-11	E283	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-TR	E283	18-Jun-2024	24-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP-02	E290	18-Jun-2024	20-Jun-2024	14 days	2 days	✓	20-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] FIELD-02	E290	18-Jun-2024	20-Jun-2024	14 days	2 days	✓	20-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-11	E290	18-Jun-2024	20-Jun-2024	14 days	2 days	✓	20-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	18-Jun-2024	20-Jun-2024	14 days	2 days	✓	20-Jun-2024	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP-02	E100	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] FIELD-02	E100	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	18-Jun-2024	20-Jun-2024	28 days	2 days	✓	20-Jun-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP-02	E108	18-Jun-2024	20-Jun-2024	14 days	2 days	✓	20-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] FIELD-02	E108	18-Jun-2024	20-Jun-2024	14 days	2 days	✓	20-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	18-Jun-2024	20-Jun-2024	14 days	2 days	✓	20-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	18-Jun-2024	20-Jun-2024	14 days	2 days	✓	20-Jun-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] DUP-02	E162-L	18-Jun-2024	----	----	----		21-Jun-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] FIELD-02	E162-L	18-Jun-2024	----	----	----		21-Jun-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	18-Jun-2024	----	----	----		21-Jun-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	18-Jun-2024	----	----	----		21-Jun-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-02	E160-L	18-Jun-2024	----	----	----		21-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] FIELD-02	E160-L	18-Jun-2024	----	----	----		21-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	18-Jun-2024	----	----	----		21-Jun-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	18-Jun-2024	----	----	----		21-Jun-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) FIELD-02	E420.Cr-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	18-Jun-2024	28-Jun-2024	28 days	10 days	✓	28-Jun-2024	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) FIELD-02	E508	18-Jun-2024	28-Jun-2024	28 days	10 days	✓	28-Jun-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	18-Jun-2024	28-Jun-2024	28 days	10 days	✓	28-Jun-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	18-Jun-2024	28-Jun-2024	28 days	10 days	✓	28-Jun-2024	28 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) FIELD-02	E420	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) FIELD-02	E420.P-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-11	E420.P-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TR	E420.P-L	18-Jun-2024	26-Jun-2024	180 days	8 days	✓	26-Jun-2024	180 days	8 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1511173	1	5	20.0	5.0	✓
Alkalinity Species by Titration	E290	1506130	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1512357	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1504969	0	4	0.0	5.0	✗
Conductivity in Water	E100	1506131	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1515957	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1517135	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1515956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1512265	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1515958	0	7	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1510187	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1504967	0	4	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1504968	0	4	0.0	5.0	✗
pH by Meter	E108	1506129	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1504961	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1506291	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1515096	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1510185	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1519457	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1515095	0	14	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1510128	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1515097	0	5	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1506312	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1510186	1	9	11.1	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1511173	1	5	20.0	5.0	✓
Alkalinity Species by Titration	E290	1506130	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1512357	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1504969	1	4	25.0	5.0	✓
Conductivity in Water	E100	1506131	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1515957	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1517135	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1515956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1512265	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1515958	1	7	14.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1510187	1	5	20.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1504967	1	4	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1504968	1	4	25.0	5.0	✓
pH by Meter	E108	1506129	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1504961	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1506291	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1515096	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1510185	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1519457	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1515095	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1510128	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1515097	1	5	20.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1506312	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1510186	1	9	11.1	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1511173	1	5	20.0	5.0	✓
Alkalinity Species by Titration	E290	1506130	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1512357	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1504969	1	4	25.0	5.0	✓
Conductivity in Water	E100	1506131	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1515957	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1517135	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1515956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1512265	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1515958	1	7	14.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1510187	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1504967	1	4	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1504968	1	4	25.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1504961	1	12	8.3	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1506291	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1515096	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1510185	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1519457	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1515095	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1510128	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1515097	1	5	20.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1506312	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1510186	1	9	11.1	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1512357	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1504969	0	4	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1515957	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1517135	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1515956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1512265	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1515958	0	7	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1510187	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1504967	0	4	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1504968	0	4	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1504961	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1515096	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1510185	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1519457	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1515095	0	14	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1510128	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1515097	0	5	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1510186	1	9	11.1	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order	: **WP2415532**	Page	: 1 of 15
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
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Project	: PPR-022-3	Date Samples Received	: 20-Jun-2024 09:50
PO	: PPR-022-3	Date Analysis Commenced	: 20-Jun-2024
C-O-C number	: ----	Issue Date	: 04-Jul-2024 10:37
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Kelly Fischer	Technical Specialist	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1506129)											
WP2415538-001	Anonymous	pH	----	E108	0.10	pH units	7.40	7.34	0.814%	4%	----
Physical Tests (QC Lot: 1506130)											
WP2415538-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	25.5	25.8	1.17%	20%	----
Physical Tests (QC Lot: 1506131)											
WP2415538-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	63.6	64.8	1.87%	10%	----
Physical Tests (QC Lot: 1506291)											
WP2415435-011	Anonymous	Solids, total dissolved [TDS]	----	E162-L	3.0	mg/L	7.6	6.4	1.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1506312)											
WP2415532-001	SW-11	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	45.6	40.8	11.3%	20%	----
Physical Tests (QC Lot: 1511173)											
BF2400129-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.1	<2.0	0.1	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1504961)											
WP2415503-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.40	4.41	0.182%	20%	----
Anions and Nutrients (QC Lot: 1510128)											
WP2415532-001	SW-11	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0872	0.0885	1.54%	20%	----
Anions and Nutrients (QC Lot: 1512357)											
WP2415538-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0101	0.0090	0.0011	Diff <2x LOR	----
Cyanides (QC Lot: 1510185)											
WP2415532-001	SW-11	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0018	0.0019	0.00009	Diff <2x LOR	----
Cyanides (QC Lot: 1510186)											
WP2415532-001	SW-11	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0014	0.0014	0.00004	Diff <2x LOR	----
Cyanides (QC Lot: 1510187)											
WP2415532-001	SW-11	Cyanide, free	----	E339-L	0.0010	mg/L	0.0015	0.0016	0.00007	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1512265)											
WP2414948-005	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	50.4	52.2	3.67%	20%	----
Total Metals (QC Lot: 1519457)											
WP2415532-001	SW-11	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000106	0.0000102	0.0000004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1515956)											
WP2415061-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	13.4 µg/L	0.0143	6.60%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1515956) - continued											
WP2415061-001	Anonymous	Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.11 µg/L	<0.00010	0.000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	1.52 µg/L	0.00150	1.34%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	18.4 µg/L	0.0186	1.20%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	23 µg/L	0.023	0.0002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	23400 µg/L	23.9	1.90%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	1.32 µg/L	0.00131	0.000003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<10 µg/L	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	10.6 µg/L	0.0104	2.61%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	11500 µg/L	11.6	1.27%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.552 µg/L	0.000558	1.06%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	1.04 µg/L	0.00103	0.00001	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<50 µg/L	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2560 µg/L	2.59	1.15%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	1.39 µg/L	0.00144	0.00006	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.294 µg/L	0.000198	0.000096	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1830 µg/L	1.97	7.56%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	12900 µg/L	13.0	0.881%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	74.8 µg/L	0.0751	0.472%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	13200 µg/L	13.6	3.24%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1515956) - continued											
WP2415061-001	Anonymous	Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.844 µg/L	0.000836	0.978%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.86 µg/L	0.00088	0.00001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<1.0 µg/L	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1517135)											
WP2414948-021	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1506130)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1506131)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1506291)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1506312)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1511173)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1504961)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1504967)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1504968)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1504969)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1510128)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1512357)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1510185)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1510186)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1510187)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1512265)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1515095)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1515095) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1515095) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1515096)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1515097)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1519457)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1515956)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1515956) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1515957)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1515958)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1517135)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1506129)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1506130)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.4	85.0	115	----
Physical Tests (QCLot: 1506131)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1506291)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	90.3	85.0	115	----
Physical Tests (QCLot: 1506312)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	87.2	85.0	115	----
Physical Tests (QCLot: 1511173)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1504961)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	97.4	90.0	110	----
Anions and Nutrients (QCLot: 1504967)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	96.1	90.0	110	----
Anions and Nutrients (QCLot: 1504968)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1504969)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	96.0	90.0	110	----
Anions and Nutrients (QCLot: 1510128)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	106	80.0	120	----
Anions and Nutrients (QCLot: 1512357)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.4	85.0	115	----
Cyanides (QCLot: 1510185)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	86.3	80.0	120	----
Cyanides (QCLot: 1510186)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	95.4	80.0	120	----
Cyanides (QCLot: 1510187)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1512265)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Total Metals (QCLot: 1515095)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	97.8	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.8	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	94.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	94.4	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.5	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.4	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	92.5	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	98.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	97.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	95.8	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.9	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.3	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.8	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	98.2	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	93.8	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	97.0	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	97.9	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.8	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.2	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	96.0	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1515095) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	94.4	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.6	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.9	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	91.3	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.5	80.0	120	----
Total Metals (QCLot: 1515096)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
Total Metals (QCLot: 1515097)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	98.2	80.0	120	----
Total Metals (QCLot: 1519457)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1515956)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.9	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.3	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	100.0	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.8	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.0	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	98.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.6	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1515956) - continued									
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	95.8	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	94.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.8	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.5	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.3	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	93.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	96.7	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.6	80.0	120	----
Dissolved Metals (QCLot: 1515957)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1504961)										
WP2415503-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	96.2 mg/L	100 mg/L	96.2	75.0	125	----
Anions and Nutrients (QCLot: 1510128)										
WP2415532-002	SW-TR	Phosphorus, total	7723-14-0	E372-U	0.222 mg/L	0.25 mg/L	88.8	70.0	130	----
Anions and Nutrients (QCLot: 1512357)										
WP2415538-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Cyanides (QCLot: 1510185)										
WP2415532-001	SW-11	Cyanide, strong acid dissociable (Total)	----	E333-L	0.191 mg/L	0.25 mg/L	76.2	75.0	125	----
Cyanides (QCLot: 1510186)										
WP2415532-001	SW-11	Cyanide, weak acid dissociable	----	E336-L	0.121 mg/L	0.125 mg/L	96.8	75.0	125	----
Cyanides (QCLot: 1510187)										
WP2415532-001	SW-11	Cyanide, free	----	E339-L	0.122 mg/L	0.125 mg/L	97.6	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1512265)										
WP2414948-006	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1519457)										
WP2415532-002	SW-TR	Mercury, total	7439-97-6	E508	0.0000946 mg/L	0 mg/L	94.6	70.0	130	----
Dissolved Metals (QCLot: 1515956)										
WP2415061-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.209 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00958 mg/L	0.01 mg/L	95.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00414 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.07 mg/L	2 mg/L	103	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0990 mg/L	0.1 mg/L	99.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1515956) - continued										
WP2415061-001	Anonymous	Nickel, dissolved	7440-02-0	E421	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.11 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0392 mg/L	0.04 mg/L	97.9	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.84 mg/L	10 mg/L	98.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00398 mg/L	0.004 mg/L	99.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00395 mg/L	0.004 mg/L	98.7	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.407 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1517135)										
WP2414948-022	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000105 mg/L	0 mg/L	105	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcha
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush re holidays and for nor
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Require
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	Analysis Re
Company:		Email 6 emily.meek@kinross.com	
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-11	18/06/2024	12:20	Water		X			6.6	13	86.3
	SW-TR	18/06/2024	15:05	Water		X			3.86	16.8	29.2
	DUP-02	18/06/2024	15:05	Water		X			3.86	16.8	29.2
	FIELD-02	18/06/2024	15:05	Water		X			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: Jacob McFee	June 19 2024	Time: 7:00	Received by:	Date: JUN 20 2024	Time: 0750	Received by:	Time:

15.8°C

Environmental Division
Winnipeg
Work Order Reference
WP2415532

Telephone : +1 204 255 9720

Sample Intake					
Client:	Great Bear				
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota	Other
# of Bottles received:					
Green/White	14x25 5x20, 3x250		Yellow/Black	8x40	
Purple/White	8x40		Light blue/White		
Warm red/White	8x125		Orange/Black		
Dark Green/White	4x100		Dark Blue/White		
Grey/black			Black/white		
Other:					
Additional Comments:					

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

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CERTIFICATE OF ANALYSIS

Work Order	: **WP2415611**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 21-Jun-2024 10:00
PO	: PPR-022-3	Date Analysis Commenced	: 21-Jun-2024
C-O-C number	: ----	Issue Date	: 03-Jul-2024 11:35
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08A	SW-GL02	----	----
					Client sampling date / time	19-Jun-2024 15:15	19-Jun-2024 14:40	19-Jun-2024 00:00	----	----
						WP2415611-001	WP2415611-002	WP2415611-003	--------	--------
						Result	Result	Result	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.59	6.31	5.78	----	----
Temperature, field	----	EF001/WP	0.10	°C		15.5	13.7	13.2	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.8	5.9	4.4	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		56.3	26.5	14.5	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		56.3	26.5	14.5	----	----
Conductivity	----	E100/WP	1.0	µS/cm		124	69.4	45.4	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		73.3	43.3	30.1	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		76.2	52.3	31.7	----	----
pH	----	E108/WP	0.10	pH units		7.26	7.04	6.67	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		218	212	93.6	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		14.4	63.7	8.3	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0277	0.0251	0.0290	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.70	0.77	<0.10	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0214	0.0431	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0214	0.0431	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.141	0.122	0.0401	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.66	0.76	0.38	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0023	0.0016	0.0014	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0500 DLM	0.0016	0.0016	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08A	SW-GL02	----	----
					Client sampling date / time	19-Jun-2024 15:15	19-Jun-2024 14:40	19-Jun-2024 00:00	----	----
						WP2415611-001	WP2415611-002	WP2415611-003	--------	--------
						Result	Result	Result	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0023	0.0013	0.0015	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		64.0	52.4	47.5	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		1.11	2.36	0.591	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00022	0.00016	0.00015	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00785	0.00430	0.00467	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0291	0.0358	0.0113	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000076	0.000126	0.000035	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.016	<0.010	<0.010	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000666	0.0000294	0.0000133	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		20.7	13.5	9.08	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000050	0.000140	0.000014	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00288	0.00509	0.00134	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00288	0.00509	0.00134	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00104	0.00144	0.00047	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00386	0.00524	0.00281	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		1.69	2.84	1.55	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000440	0.00120	0.000150	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0045	0.0048	0.0016	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		5.96	4.52	2.19	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.168	0.0744	0.0426	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000140	0.0000184	0.0000104	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000533	0.000114	0.000097	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00512	0.00472	0.00258	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.116	0.061	0.042	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.116	0.061	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		4.71	0.827	0.240	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00387	0.00489	0.00122	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08A	SW-GL02	----	----
					Client sampling date / time	19-Jun-2024 15:15	19-Jun-2024 14:40	19-Jun-2024 00:00	----	----
						WP2415611-001	WP2415611-002	WP2415611-003	--------	--------
						Result	Result	Result	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000389	0.000139	0.000163	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		7.81	8.61	4.56	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000011	<0.000010	<0.000010	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.34	2.50	1.34	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0427	0.0340	0.0232	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.68	0.58	0.51	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.000011	0.000030	<0.000010	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00048	0.00074	0.00025	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.00010	<0.00010	Not Detected	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0361	0.0550	0.0129	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00011	<0.00010	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000453	0.000279	0.000163	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00435	0.00579	0.00184	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0075	0.0120	0.0040	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00238	0.00276	0.00075	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.584	0.438	0.508	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00020	0.00017	0.00015	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00730	0.00398	0.00422	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0237	0.00936	0.0103	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000058	0.000037	0.000034	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.014	<0.010	<0.010	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000425	0.0000143	0.0000114	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		20.7	11.9	8.89	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	<0.000010	<0.000010	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00189	0.00119	0.00118	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00189	0.00119	0.00118	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00072	0.00037	0.00037	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08A	SW-GL02	----	----
					Client sampling date / time	19-Jun-2024 15:15	19-Jun-2024 14:40	19-Jun-2024 00:00	----	----
						WP2415611-001	WP2415611-002	WP2415611-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00305	0.00208	0.00206	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.956	0.674	1.20	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000161	0.000132	0.000095	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0046	0.0026	0.0020	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		5.24	3.30	1.91	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.134	0.0358	0.0340	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000111	0.0000117	0.0000085	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000516	0.000252 RRV	0.000100	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00426	0.00193	0.00151	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		0.077	<0.030	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		0.077	<0.050	<0.050	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		4.35	0.495	0.225	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00287	0.00086	0.00102	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000279	0.000275 RRV	0.000192	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.41	5.34	4.28	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.20	2.23	1.26	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0392	0.0292	0.0232	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00055	0.00035	0.00027	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.0136	0.0109	0.00851	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00011	<0.00010	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000424	0.000180	0.000150	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00286	0.00141	0.00139	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0044	0.0032	0.0039	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00212	0.00127	0.00081	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	SW-08A	SW-GL02	----	----
					Client sampling date / time	19-Jun-2024 15:15	19-Jun-2024 14:40	19-Jun-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2415611-001	WP2415611-002	WP2415611-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2415611**	Page	: 1 of 18
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 21-Jun-2024 10:00
PO	: PPR-022-3	Issue Date	: 03-Jul-2024 11:35
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	19-Jun-2024	27-Jun-2024	28 days	8 days	✓	27-Jun-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08A	E298	19-Jun-2024	27-Jun-2024	28 days	8 days	✓	27-Jun-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL02	E298	19-Jun-2024	27-Jun-2024	28 days	8 days	✓	27-Jun-2024	28 days	8 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.Cl-L	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.Cl-L	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL02	E235.Cl-L	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO3-L	19-Jun-2024	21-Jun-2024	7 days	2 days	✓	21-Jun-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO3-L	19-Jun-2024	21-Jun-2024	7 days	2 days	✓	21-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL02	E235.NO3-L	19-Jun-2024	21-Jun-2024	7 days	2 days	✓	21-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO2-L	19-Jun-2024	21-Jun-2024	7 days	2 days	✓	21-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.NO2-L	19-Jun-2024	21-Jun-2024	7 days	2 days	✓	21-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL02	E235.NO2-L	19-Jun-2024	21-Jun-2024	7 days	2 days	✓	21-Jun-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-03	E235.SO4	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-08A	E235.SO4	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL02	E235.SO4	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-03	E372-U	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	24-Jun-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08A	E372-U	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	24-Jun-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL02	E372-U	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	24-Jun-2024	28 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E339-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E336-L	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	25-Jun-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.Cr-L	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.Cr-L	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-03	E509	19-Jun-2024	28-Jun-2024	28 days	9 days	✓	28-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08A	E509	19-Jun-2024	28-Jun-2024	28 days	9 days	✓	28-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL02	E509	19-Jun-2024	28-Jun-2024	28 days	9 days	✓	28-Jun-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-03	E421	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08A	E421	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL02	E421	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08A	E421.P-L	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL02	E421.P-L	19-Jun-2024	26-Jun-2024	180 days	7 days	✓	27-Jun-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-03	EF001	19-Jun-2024	----	----	----		24-Jun-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08A	EF001	19-Jun-2024	----	----	----		24-Jun-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL02	EF001	19-Jun-2024	----	----	----		24-Jun-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-03	E358-L	19-Jun-2024	26-Jun-2024	28 days	7 days	✓	26-Jun-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	19-Jun-2024	26-Jun-2024	28 days	7 days	✓	26-Jun-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL02	E358-L	19-Jun-2024	26-Jun-2024	28 days	7 days	✓	26-Jun-2024	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-03	E283	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-08A	E283	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-GL02	E283	19-Jun-2024	25-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-03	E290	19-Jun-2024	21-Jun-2024	14 days	2 days	✓	21-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08A	E290	19-Jun-2024	21-Jun-2024	14 days	2 days	✓	21-Jun-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL02	E290	19-Jun-2024	21-Jun-2024	14 days	2 days	✓	21-Jun-2024	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08A	E100	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL02	E100	19-Jun-2024	21-Jun-2024	28 days	2 days	✓	21-Jun-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	19-Jun-2024	21-Jun-2024	14 days	2 days	✓	21-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08A	E108	19-Jun-2024	21-Jun-2024	14 days	2 days	✓	21-Jun-2024	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL02	E108	19-Jun-2024	21-Jun-2024	14 days	2 days	✓	21-Jun-2024	14 days	2 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	19-Jun-2024	----	----	----		24-Jun-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08A	E162-L	19-Jun-2024	----	----	----		24-Jun-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL02	E162-L	19-Jun-2024	----	----	----		24-Jun-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	19-Jun-2024	----	----	----		24-Jun-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	19-Jun-2024	----	----	----		24-Jun-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL02	E160-L	19-Jun-2024	----	----	----		24-Jun-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	19-Jun-2024	28-Jun-2024	28 days	9 days	✓	28-Jun-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	19-Jun-2024	28-Jun-2024	28 days	9 days	✓	28-Jun-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL02	E508	19-Jun-2024	28-Jun-2024	28 days	9 days	✓	28-Jun-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL02	E420.P-L	19-Jun-2024	27-Jun-2024	180 days	8 days	✓	27-Jun-2024	180 days	8 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1512758	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1510289	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1517567	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1507100	1	8	12.5	5.0	✓
Conductivity in Water	E100	1510288	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1515957	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1519459	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1515956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1514630	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1515958	0	7	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1512888	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1507101	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1507102	1	11	9.0	5.0	✓
pH by Meter	E108	1510287	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1507099	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1510308	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1517222	0	8	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1512886	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1519457	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1517220	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1510129	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1517223	0	15	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1510331	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1512887	1	3	33.3	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1512758	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1510289	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1517567	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1507100	1	8	12.5	5.0	✓
Conductivity in Water	E100	1510288	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1515957	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1519459	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1515956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1514630	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1515958	1	7	14.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1512888	1	4	25.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1507101	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1507102	1	11	9.0	5.0	✓
pH by Meter	E108	1510287	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1507099	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1510308	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1517222	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1512886	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1519457	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1517220	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1510129	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1517223	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1510331	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1512887	1	3	33.3	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1512758	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1510289	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1517567	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1507100	1	8	12.5	5.0	✓
Conductivity in Water	E100	1510288	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1515957	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1519459	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1515956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1514630	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1515958	1	7	14.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1512888	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1507101	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1507102	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1507099	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1510308	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1517222	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1512886	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1519457	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1517220	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1510129	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1517223	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1510331	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1512887	1	3	33.3	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1517567	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1507100	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1515957	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1519459	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1515956	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1514630	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1515958	0	7	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1512888	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1507101	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1507102	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1507099	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1517222	0	8	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1512886	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1519457	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1517220	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1510129	1	13	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1517223	0	15	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1512887	1	3	33.3	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order	: **WP2415611**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 21-Jun-2024 10:00
PO	: PPR-022-3	Date Analysis Commenced	: 21-Jun-2024
C-O-C number	: ----	Issue Date	: 03-Jul-2024 11:35
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1510287)											
WP2415615-001	Anonymous	pH	----	E108	0.10	pH units	7.92	7.85	0.888%	4%	----
Physical Tests (QC Lot: 1510288)											
WP2415615-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	622	626	0.641%	10%	----
Physical Tests (QC Lot: 1510289)											
WP2415615-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	55.3	54.8	0.908%	20%	----
Physical Tests (QC Lot: 1510308)											
WP2415541-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	688	682	1.02%	20%	----
Physical Tests (QC Lot: 1510309)											
WP2415611-002	SW-08A	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	212	209	1.43%	20%	----
Physical Tests (QC Lot: 1510331)											
WP2415555-013	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.4	<1.0	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 1512758)											
WP2415584-007	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	26.4	23.3	12.4%	20%	----
Anions and Nutrients (QC Lot: 1507099)											
WP2415605-005	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	190	190	0.179%	20%	----
Anions and Nutrients (QC Lot: 1507100)											
WP2415605-005	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	18.6	18.5	0.664%	20%	----
Anions and Nutrients (QC Lot: 1507101)											
WP2415605-005	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.172	0.172	0.0291%	20%	----
Anions and Nutrients (QC Lot: 1507102)											
WP2415605-005	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0024	0.0024	0.000008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1510129)											
WP2415611-001	SW-03	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.141	0.142	1.03%	20%	----
Anions and Nutrients (QC Lot: 1517567)											
WP2415605-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0391	0.0372	0.0018	Diff <2x LOR	----
Cyanides (QC Lot: 1512886)											
WP2415611-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0500	mg/L	<0.0500	<0.0500	0	Diff <2x LOR	----
Cyanides (QC Lot: 1512887)											
WP2415611-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0023	0.0022	0.00009	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1512888)											
WP2415611-001	SW-03	Cyanide, free	----	E339-L	0.0010	mg/L	0.0023	0.0025	0.0002	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1514630)											
WP2415577-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	4.67	4.49	0.18	Diff <2x LOR	----
Total Metals (QC Lot: 1517220)											
WP2415595-016	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0061	0.0060	0.0001	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00010	0.00011	0.000005	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00454	0.00465	2.35%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.118	0.119	0.743%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.05	9.20	1.60%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.543	0.539	0.900%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.035	0.035	0.0007	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000161	0.000161	0.0000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0060	0.0061	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	11.3	11.3	0.159%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00076	0.00080	0.00004	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00818	0.00786	3.97%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.214	0.221	0.006	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.992	0.967	2.57%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00068	0.00071	0.00003	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	0.75	0.76	0.01	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	21.4	20.9	2.60%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0349	0.0342	2.19%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	4.14	4.28	0.14	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1517220) - continued											
WP2415595-016	Anonymous	Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0276	0.0275	0.00008	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1519457)											
WP2415532-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000106	0.0000102	0.0000004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1515956)											
WP2415061-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	13.4 µg/L	0.0143	6.60%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.11 µg/L	<0.00010	0.000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	1.52 µg/L	0.00150	1.34%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	18.4 µg/L	0.0186	1.20%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	23 µg/L	0.023	0.0002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	23400 µg/L	23.9	1.90%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	1.32 µg/L	0.00131	0.000003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<10 µg/L	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	10.6 µg/L	0.0104	2.61%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	11500 µg/L	11.6	1.27%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.552 µg/L	0.000558	1.06%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	1.04 µg/L	0.00103	0.00001	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<50 µg/L	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2560 µg/L	2.59	1.15%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1515956) - continued											
WP2415061-001	Anonymous	Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	1.39 µg/L	0.00144	0.00006	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.294 µg/L	0.000198	0.000096	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1830 µg/L	1.97	7.56%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	12900 µg/L	13.0	0.881%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	74.8 µg/L	0.0751	0.472%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	13200 µg/L	13.6	3.24%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.844 µg/L	0.000836	0.978%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.86 µg/L	0.00088	0.00001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<1.0 µg/L	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1519459)											
WP2415568-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1510288)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1510289)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1510308)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1510309)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1510331)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1512758)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1507099)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1507100)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1507101)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1507102)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1510129)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1517567)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1512886)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1512887)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1512888)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1514630)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1517220)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1517220) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1517220) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1517222)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1517223)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1519457)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1515956)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1515956) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1515957)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1515958)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1519459)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1510287)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1510288)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1510289)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	98.9	85.0	115	----
Physical Tests (QCLot: 1510308)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.8	85.0	115	----
Physical Tests (QCLot: 1510309)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.8	85.0	115	----
Physical Tests (QCLot: 1510331)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	86.1	85.0	115	----
Physical Tests (QCLot: 1512758)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1507099)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	97.4	90.0	110	----
Anions and Nutrients (QCLot: 1507100)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1507101)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	97.4	90.0	110	----
Anions and Nutrients (QCLot: 1507102)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1510129)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	104	80.0	120	----
Anions and Nutrients (QCLot: 1517567)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.6	85.0	115	----
Cyanides (QCLot: 1512886)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.7	80.0	120	----
Cyanides (QCLot: 1512887)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	98.4	80.0	120	----
Cyanides (QCLot: 1512888)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1512888) - continued									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1514630)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100	80.0	120	----
Total Metals (QCLot: 1517220)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	113	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	111	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	107	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	108	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	105	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	107	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	102	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	118	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	114	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	105	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	107	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	99.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	107	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	106	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1517220) - continued									
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	105	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	105	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	109	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	106	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Total Metals (QCLot: 1517222)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	108	80.0	120	----
Total Metals (QCLot: 1517223)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	114	80.0	120	----
Total Metals (QCLot: 1519457)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1515956)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.9	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.3	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	100.0	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.8	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.0	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	98.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1515956) - continued									
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	95.8	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	94.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	92.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.8	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.5	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.3	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	93.6	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	96.7	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.6	80.0	120	----
Dissolved Metals (QCLot: 1515957)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1507099)										
WP2415605-005	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1507100)										
WP2415605-005	Anonymous	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1507101)										
WP2415605-005	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1507102)										
WP2415605-005	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.510 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1510129)										
WP2415611-002	SW-08A	Phosphorus, total	7723-14-0	E372-U	0.214 mg/L	0.25 mg/L	85.4	70.0	130	----
Anions and Nutrients (QCLot: 1517567)										
WP2415605-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0991 mg/L	0.1 mg/L	99.1	75.0	125	----
Cyanides (QCLot: 1512886)										
WP2415611-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	11.9 mg/L	12.5 mg/L	95.2	75.0	125	----
Cyanides (QCLot: 1512887)										
WP2415611-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.123 mg/L	0.125 mg/L	98.2	75.0	125	----
Cyanides (QCLot: 1512888)										
WP2415611-001	SW-03	Cyanide, free	----	E339-L	0.122 mg/L	0.125 mg/L	97.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1514630)										
WP2415577-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.25 mg/L	5 mg/L	105	70.0	130	----
Total Metals (QCLot: 1517220)										
WP2415595-016	Anonymous	Aluminum, total	7429-90-5	E420	0.209 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Barium, total	7440-39-3	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00944 mg/L	0.01 mg/L	94.4	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00410 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1517220) - continued										
WP2415595-016	Anonymous	Iron, total	7439-89-6	E420	2.03 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0190 mg/L	0.02 mg/L	95.3	70.0	130	----
		Lithium, total	7439-93-2	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, total	7440-09-7	E420	4.17 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Silicon, total	7440-21-3	E420	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, total	7440-22-4	E420	0.00420 mg/L	0.004 mg/L	105	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.1 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0398 mg/L	0.04 mg/L	99.6	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Tin, total	7440-31-5	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00391 mg/L	0.004 mg/L	97.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.394 mg/L	0.4 mg/L	98.5	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0398 mg/L	0.04 mg/L	99.6	70.0	130	----
Total Metals (QCLot: 1519457)										
WP2415532-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000946 mg/L	0 mg/L	94.6	70.0	130	----
Dissolved Metals (QCLot: 1515956)										
WP2415061-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.209 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00958 mg/L	0.01 mg/L	95.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00414 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.07 mg/L	2 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1515956) - continued										
WP2415061-001	Anonymous	Lead, dissolved	7439-92-1	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0990 mg/L	0.1 mg/L	99.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.11 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0392 mg/L	0.04 mg/L	97.9	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.84 mg/L	10 mg/L	98.4	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00398 mg/L	0.004 mg/L	99.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00395 mg/L	0.004 mg/L	98.7	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.407 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1519459)										
WP2415568-006	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL | | MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To |✓| YES | NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report |✓| YES | NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: |✓| EMAIL | | MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-03	19-Jun-24	15:15	Water		X			6.59	15.5	106.7
	SW-08a	19-Jun-24	14:40	Water		X			6.31	13.7	58.3
	SW-GL02	19-Jun-24	13:00	Water		X			5.78	13.2	37

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: Jacob McFee	June 19 2024	Time: 7:00	Received by:	Date: JUN 21 2024	Time: 10:00	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2415611

Telephone : +1 204 255 9720

QS

ALS Canada Ltd.

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CERTIFICATE OF ANALYSIS

Work Order	: **WP2415789**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 24-Jun-2024 10:07
PO	: PPR-022-3	Date Analysis Commenced	: 24-Jun-2024
C-O-C number	: ----	Issue Date	: 08-Jul-2024 09:33
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	TRAVEL BLANK	----	----
					Client sampling date / time	20-Jun-2024 10:35	20-Jun-2024 10:45	20-Jun-2024 00:00	----	----
						WP2415789-001	WP2415789-002	WP2415789-003	--------	--------
						Result	Result	Result	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.13	6.55	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		17.8	13.9	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	3.6	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		30.9	32.8	<1.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		30.9	32.8	<1.0	----	----
Conductivity	----	E100/WP	1.0	µS/cm		66.8	70.4	Not Detected	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		30.4	32.4	<0.50	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		33.4	34.8	<0.50	----	----
pH	----	E108/WP	0.10	pH units		7.62	7.42	5.22	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		46.2	46.9	<3.0	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	1.2	<1.0	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0063	0.107	0.0181	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.20	0.22	Not Detected	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0069	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0069	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0126	0.0274	Not Detected	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.72	0.72	<0.30	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	TRAVEL BLANK	----	----
					Client sampling date / time	20-Jun-2024 10:35	20-Jun-2024 10:45	20-Jun-2024 00:00	----	----
						WP2415789-001	WP2415789-002	WP2415789-003	--------	--------
						Result	Result	Result	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.1	11.1	<0.50	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0191	0.0184	<0.0030	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00134	0.00261	Not Detected	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00687	0.00851	<0.00010	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	Not Detected	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	Not Detected	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	Not Detected	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.56	10.0	Not Detected	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	Not Detected	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.081	0.486	Not Detected	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0016	0.0018	<0.0010	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.31	2.39	Not Detected	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00823	0.148	Not Detected	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000089	0.000088	Not Detected	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	Not Detected	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.656	0.717	Not Detected	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00168	0.00192	Not Detected	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	TRAVEL BLANK	----	----
					Client sampling date / time	20-Jun-2024 10:35	20-Jun-2024 10:45	20-Jun-2024 00:00	----	----
						WP2415789-001	WP2415789-002	WP2415789-003	--------	--------
						Result	Result	Result	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	0.000092	<0.000050	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.75	1.38	<0.10	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.31	1.23	Not Detected	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0216	0.0223	Not Detected	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.51	<0.50	<0.50	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00035	0.00043	Not Detected	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000040	0.000045	Not Detected	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	Not Detected	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	Not Detected	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	Not Detected	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0110	0.0061	Not Detected	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00129	0.00190	<0.00010	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00732	0.00815	Not Detected	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	Not Detected	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	Not Detected	Not Detected	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		8.73	9.22	Not Detected	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	TRAVEL BLANK	----	----
					Client sampling date / time	20-Jun-2024 10:35	20-Jun-2024 10:45	20-Jun-2024 00:00	----	----
						WP2415789-001	WP2415789-002	WP2415789-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	<0.00020	Not Detected	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.037	0.195	Not Detected	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		Not Detected	<0.000050	Not Detected	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	Not Detected	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.10	2.29	Not Detected	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00127	0.110	Not Detected	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000097	0.000095	Not Detected	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	Not Detected	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.630	0.672	Not Detected	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00170	0.00189	Not Detected	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.636	1.20	<0.050	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.07	1.08	Not Detected	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0198	0.0201	Not Detected	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	Not Detected	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	<0.00030	Not Detected	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000035	0.000034	Not Detected	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		Not Detected	<0.00050	Not Detected	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		Not Detected	Not Detected	<0.0010	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	Not Detected	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-GL	SW-GL-B	TRAVEL BLANK	----	----
					Client sampling date / time	20-Jun-2024 10:35	20-Jun-2024 10:45	20-Jun-2024 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2415789-001	WP2415789-002	WP2415789-003	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Laboratory	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2415789**	Page	: 1 of 18
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 24-Jun-2024 10:07
PO	: PPR-022-3	Issue Date	: 08-Jul-2024 09:33
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	20-Jun-2024	27-Jun-2024	28 days	7 days	✓	27-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	20-Jun-2024	27-Jun-2024	28 days	7 days	✓	27-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) TRAVEL BLANK	E298	20-Jun-2024	27-Jun-2024	28 days	7 days	✓	27-Jun-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	20-Jun-2024	24-Jun-2024	28 days	4 days	✓	24-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.Cl-L	20-Jun-2024	24-Jun-2024	28 days	4 days	✓	24-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] TRAVEL BLANK	E235.Cl-L	20-Jun-2024	24-Jun-2024	28 days	4 days	✓	24-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO3-L	20-Jun-2024	24-Jun-2024	7 days	4 days	✓	24-Jun-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO3-L	20-Jun-2024	24-Jun-2024	7 days	4 days	✓	24-Jun-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] TRAVEL BLANK	E235.NO3-L	20-Jun-2024	24-Jun-2024	7 days	4 days	✓	24-Jun-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	20-Jun-2024	24-Jun-2024	7 days	4 days	✓	24-Jun-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	20-Jun-2024	24-Jun-2024	7 days	4 days	✓	24-Jun-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] TRAVEL BLANK	E235.NO2-L	20-Jun-2024	24-Jun-2024	7 days	4 days	✓	24-Jun-2024	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL	E235.SO4	20-Jun-2024	24-Jun-2024	28 days	4 days	✓	24-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-GL-B	E235.SO4	20-Jun-2024	24-Jun-2024	28 days	4 days	✓	24-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] TRAVEL BLANK	E235.SO4	20-Jun-2024	24-Jun-2024	28 days	4 days	✓	24-Jun-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	20-Jun-2024	25-Jun-2024	28 days	5 days	✓	26-Jun-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL-B	E372-U	20-Jun-2024	25-Jun-2024	28 days	5 days	✓	26-Jun-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) TRAVEL BLANK	E372-U	20-Jun-2024	25-Jun-2024	28 days	5 days	✓	26-Jun-2024	28 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E339-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E339-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) TRAVEL BLANK	E339-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E333-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E333-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) TRAVEL BLANK	E333-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E336-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
TRAVEL BLANK	E336-L	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	26-Jun-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.Cr-L	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421.Cr-L	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	20-Jun-2024	28-Jun-2024	28 days	8 days	✓	28-Jun-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL-B	E509	20-Jun-2024	28-Jun-2024	28 days	8 days	✓	28-Jun-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
TRAVEL BLANK	E509	20-Jun-2024	28-Jun-2024	28 days	8 days	✓	28-Jun-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL	E421	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) TRAVEL BLANK	E421	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) TRAVEL BLANK	E421.P-L	20-Jun-2024	28-Jun-2024	180 days	8 days	✓	28-Jun-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL	EF001	20-Jun-2024	----	----	----		25-Jun-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL-B	EF001	20-Jun-2024	----	----	----		25-Jun-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	20-Jun-2024	26-Jun-2024	28 days	6 days	✓	26-Jun-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL-B	E358-L	20-Jun-2024	26-Jun-2024	28 days	6 days	✓	26-Jun-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
TRAVEL BLANK	E358-L	20-Jun-2024	26-Jun-2024	28 days	6 days	✓	26-Jun-2024	28 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
SW-GL	E283	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
SW-GL-B	E283	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
TRAVEL BLANK	E283	20-Jun-2024	26-Jun-2024	14 days	6 days	✓	27-Jun-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-GL	E290	20-Jun-2024	25-Jun-2024	14 days	5 days	✓	25-Jun-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
SW-GL-B	E290	20-Jun-2024	25-Jun-2024	14 days	5 days	✓	25-Jun-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
TRAVEL BLANK	E290	20-Jun-2024	25-Jun-2024	14 days	5 days	✓	25-Jun-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
SW-GL	E100	20-Jun-2024	25-Jun-2024	28 days	5 days	✓	25-Jun-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
SW-GL-B	E100	20-Jun-2024	25-Jun-2024	28 days	5 days	✓	25-Jun-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
TRAVEL BLANK	E100	20-Jun-2024	25-Jun-2024	28 days	5 days	✓	25-Jun-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
SW-GL	E108	20-Jun-2024	25-Jun-2024	14 days	5 days	✓	25-Jun-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
SW-GL-B	E108	20-Jun-2024	25-Jun-2024	14 days	5 days	✓	25-Jun-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
TRAVEL BLANK	E108	20-Jun-2024	25-Jun-2024	14 days	5 days	✓	25-Jun-2024	14 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-GL	E162-L	20-Jun-2024	----	----	----		25-Jun-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
SW-GL-B	E162-L	20-Jun-2024	----	----	----		25-Jun-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP]										
TRAVEL BLANK	E162-L	20-Jun-2024	----	----	----		25-Jun-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-GL	E160-L	20-Jun-2024	----	----	----		25-Jun-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
SW-GL-B	E160-L	20-Jun-2024	----	----	----		25-Jun-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] TRAVEL BLANK	E160-L	20-Jun-2024	----	----	----		25-Jun-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.Cr-L	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	20-Jun-2024	03-Jul-2024	28 days	13 days	✓	03-Jul-2024	28 days	13 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	20-Jun-2024	03-Jul-2024	28 days	13 days	✓	03-Jul-2024	28 days	13 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) TRAVEL BLANK	E508	20-Jun-2024	03-Jul-2024	28 days	13 days	✓	03-Jul-2024	28 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) TRAVEL BLANK	E420	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) TRAVEL BLANK	E420.P-L	20-Jun-2024	03-Jul-2024	180 days	13 days	✓	03-Jul-2024	180 days	13 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1515423	1	16	6.2	5.0	✓
Alkalinity Species by Titration	E290	1514279	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1517710	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1511300	1	13	7.6	5.0	✓
Conductivity in Water	E100	1514277	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1519825	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1519459	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1519824	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1515114	1	9	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1519823	1	5	20.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1515267	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1511298	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1511299	1	13	7.6	5.0	✓
pH by Meter	E108	1514278	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1511297	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1512160	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1525086	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1515268	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1525337	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1525084	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1514189	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1525089	0	4	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1512174	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1515266	1	4	25.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1515423	1	16	6.2	5.0	✓
Alkalinity Species by Titration	E290	1514279	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1517710	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1511300	1	13	7.6	5.0	✓
Conductivity in Water	E100	1514277	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1519825	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1519459	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1519824	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1515114	1	9	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1519823	1	5	20.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1515267	1	4	25.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1511298	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1511299	1	13	7.6	5.0	✓
pH by Meter	E108	1514278	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1511297	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1512160	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1525086	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1515268	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1525337	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1525084	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1514189	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1525089	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1512174	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1515266	1	4	25.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1515423	1	16	6.2	5.0	✓
Alkalinity Species by Titration	E290	1514279	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1517710	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1511300	1	13	7.6	5.0	✓
Conductivity in Water	E100	1514277	1	18	5.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1519825	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1519459	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1519824	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1515114	1	9	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1519823	1	5	20.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1515267	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1511298	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1511299	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1511297	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1512160	1	12	8.3	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1525086	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1515268	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1525337	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1525084	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1514189	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1525089	1	4	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1512174	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1515266	1	4	25.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1517710	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1511300	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1519825	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1519459	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1519824	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1515114	1	9	11.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1519823	1	5	20.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1515267	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1511298	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1511299	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1511297	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1525086	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1515268	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1525337	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1525084	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1514189	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1525089	0	4	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1515266	1	4	25.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2415789**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 24-Jun-2024 10:07
PO	: PPR-022-3	Date Analysis Commenced	: 24-Jun-2024
C-O-C number	: ----	Issue Date	: 08-Jul-2024 09:33
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1512160)											
WP2415753-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	162	164	1.53%	20%	----
Physical Tests (QC Lot: 1512174)											
WP2415929-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	11.5	12.0	4.53%	20%	----
Physical Tests (QC Lot: 1514277)											
WP2415795-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	3810	3800	0.263%	10%	----
Physical Tests (QC Lot: 1514278)											
WP2415795-001	Anonymous	pH	----	E108	0.10	pH units	7.14	7.04	1.41%	4%	----
Physical Tests (QC Lot: 1514279)											
WP2415795-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	30.6	30.2	1.32%	20%	----
Physical Tests (QC Lot: 1515423)											
WP2415648-026	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	5.0	5.5	0.5	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1511297)											
WP2415752-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	37.7	37.8	0.474%	20%	----
Anions and Nutrients (QC Lot: 1511298)											
WP2415752-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1511299)											
WP2415752-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1511300)											
WP2415752-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	8.41	8.42	0.161%	20%	----
Anions and Nutrients (QC Lot: 1514189)											
WP2415638-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	3.60	3.69	2.37%	20%	----
Anions and Nutrients (QC Lot: 1517710)											
WP2415755-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0092	0.0084	0.0009	Diff <2x LOR	----
Cyanides (QC Lot: 1515266)											
WP2415789-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1515267)											
WP2415789-001	SW-GL	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1515268)											
WP2415789-001	SW-GL	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1515114)											
WP2415689-015	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.7	10.9	1.88%	20%	----
Total Metals (QC Lot: 1525084)											
WP2415713-017	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0432	0.0447	3.30%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00018	0.00018	0.000003	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0117	0.0120	2.57%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.011	0.011	0.0002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.000107	0.000102	5.00%	20%	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.25	9.18	0.731%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00012	0.00012	0.000003	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.234	0.236	0.843%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.142	0.144	1.27%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00566	0.00581	2.64%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0039	0.0040	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.34	4.28	1.34%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0127	0.0127	0.0212%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000088	0.000089	0.0000005	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00265	0.00266	0.00001	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.08	1.10	1.42%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00124	0.00130	0.00006	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000091	<0.000050	0.000041	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.02	1.00	2.45%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000035	0.000035	0.0000002	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	7.63	7.68	0.630%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0344	0.0351	2.01%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1.88	2.11	0.23	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1525084) - continued											
WP2415713-017	Anonymous	Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.996	0.999	0.357%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1525337)											
WP2415470-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1519459)											
WP2415568-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1519823)											
WP2415620-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	0.045	<0.030	0.015	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1519824)											
WP2415620-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.355	0.296	18.2%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00278	0.00267	4.28%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.0997	0.0990	0.654%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0160	0.0149	7.00%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000031	0.000028	0.000003	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000289	0.0000258	0.0000031	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	21.6	22.2	2.72%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000032	0.000029	0.000003	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00133	0.00119	0.00014	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00092	0.00089	0.00003	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00640	0.00617	3.72%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.659	0.624	5.50%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000126	0.000100	0.000026	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0031	0.0029	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	6.84	6.69	2.18%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0466	0.0460	1.32%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000504	0.000495	0.000009	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.0117	0.0115	1.83%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1519824) - continued											
WP2415620-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.12	2.09	1.57%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00260	0.00266	1.96%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000342	0.000308	0.000034	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.71	4.38	7.22%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.000012	0.000030	0.000018	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	3.75	3.74	0.352%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0532	0.0515	3.26%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	4.05	3.96	0.09	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000012	0.000010	0.000002	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	0.00027	0.00029	0.00002	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00985	0.0105	6.76%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000148	0.000140	5.66%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00137	0.00126	0.00011	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0033	0.0031	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00132	0.00142	0.00009	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1512160)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1512174)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1514277)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1514279)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1515423)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1511297)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1511298)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1511299)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1511300)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1514189)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1517710)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1515266)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1515267)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1515268)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1515114)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1525084)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1525084) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1525084) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1525086)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1525089)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1525337)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1519459)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1519823)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1519824)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1519824) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1519825)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1512160)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.8	85.0	115	----
Physical Tests (QCLot: 1512174)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	89.8	85.0	115	----
Physical Tests (QCLot: 1514277)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1514278)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1514279)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1515423)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	113	85.0	115	----
Anions and Nutrients (QCLot: 1511297)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1511298)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1511299)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	106	90.0	110	----
Anions and Nutrients (QCLot: 1511300)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	105	90.0	110	----
Anions and Nutrients (QCLot: 1514189)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	103	80.0	120	----
Anions and Nutrients (QCLot: 1517710)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.8	85.0	115	----
Cyanides (QCLot: 1515266)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	95.6	80.0	120	----
Cyanides (QCLot: 1515267)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.1	80.0	120	----
Cyanides (QCLot: 1515268)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	84.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1515114)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	107	80.0	120	----
Total Metals (QCLot: 1525084)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.2	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.6	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	105	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.4	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	98.7	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.2	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.1	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.1	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.7	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	97.2	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	96.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	103	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	102	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	105	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	91.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	100.0	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1525084) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	106	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.7	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.5	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Total Metals (QCLot: 1525086)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.4	80.0	120	----
Total Metals (QCLot: 1525089)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Total Metals (QCLot: 1525337)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	99.8	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 1519824)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	96.1	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	114	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	95.1	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	94.7	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	93.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.0	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.5	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	96.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	95.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	94.6	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	88.2	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.0	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	95.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	103	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	94.3	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1519824) - continued									
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	93.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	91.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	96.7	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	92.4	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	97.3	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	95.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	94.8	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	95.1	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.7	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.5	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.2	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.2	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	91.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1519825)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.0	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1511297)										
WP2415752-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.6 mg/L	100 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 1511298)										
WP2415752-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.55 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1511299)										
WP2415752-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.530 mg/L	0.5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1511300)										
WP2415752-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1514189)										
WP2415789-001	SW-GL	Phosphorus, total	7723-14-0	E372-U	0.276 mg/L	0.25 mg/L	110	70.0	130	----
Anions and Nutrients (QCLot: 1517710)										
WP2415755-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0997 mg/L	0.1 mg/L	99.7	75.0	125	----
Cyanides (QCLot: 1515266)										
WP2415789-001	SW-GL	Cyanide, weak acid dissociable	----	E336-L	0.118 mg/L	0.125 mg/L	94.2	75.0	125	----
Cyanides (QCLot: 1515267)										
WP2415789-001	SW-GL	Cyanide, free	----	E339-L	0.121 mg/L	0.125 mg/L	96.5	75.0	125	----
Cyanides (QCLot: 1515268)										
WP2415789-001	SW-GL	Cyanide, strong acid dissociable (Total)	----	E333-L	0.203 mg/L	0.25 mg/L	81.4	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1515114)										
WP2415689-016	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1525084)										
WP2415713-017	Anonymous	Aluminum, total	7429-90-5	E420	0.198 mg/L	0.2 mg/L	99.0	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Barium, total	7440-39-3	E420	0.0194 mg/L	0.02 mg/L	97.2	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Boron, total	7440-42-8	E420	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00397 mg/L	0.004 mg/L	99.2	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1525084) - continued										
WP2415713-017	Anonymous	Iron, total	7439-89-6	E420	2.03 mg/L	2 mg/L	101	70.0	130	----
		Lead, total	7439-92-1	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Lithium, total	7439-93-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.95 mg/L	10 mg/L	99.5	70.0	130	----
		Potassium, total	7440-09-7	E420	4.08 mg/L	4 mg/L	102	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, total	7440-22-4	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.7 mg/L	20 mg/L	103	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0389 mg/L	0.04 mg/L	97.2	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, total	7440-31-5	E420	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, total	7440-66-6	E420	ND mg/L	----	ND	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
Total Metals (QCLot: 1525337)										
WP2415470-002	Anonymous	Mercury, total	7439-97-6	E508	0.000103 mg/L	0 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1519459)										
WP2415568-006	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1519823)										
WP2415620-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.2 mg/L	10 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1519824)										
WP2415620-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	ND mg/L	----	ND	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	ND mg/L	----	ND	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0193 mg/L	0.02 mg/L	96.4	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0390 mg/L	0.04 mg/L	97.5	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00943 mg/L	0.01 mg/L	94.3	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.096 mg/L	0.1 mg/L	95.9	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00390 mg/L	0.004 mg/L	97.4	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1519824) - continued										
WP2415620-001	Anonymous	Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0196 mg/L	0.02 mg/L	98.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.84 mg/L	2 mg/L	91.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0973 mg/L	0.1 mg/L	97.3	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0383 mg/L	0.04 mg/L	95.7	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.2 mg/L	10 mg/L	102	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.94 mg/L	4 mg/L	98.5	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.67 mg/L	10 mg/L	96.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.4 mg/L	20 mg/L	96.9	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00384 mg/L	0.004 mg/L	95.9	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00375 mg/L	0.004 mg/L	93.8	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0985 mg/L	0.1 mg/L	98.5	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.395 mg/L	0.4 mg/L	98.7	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-GL	20-Jun-24	10:35	Water		X			7.13	17.8	58.5
	SW-GL-B	20-Jun-24	10:45	Water		X			6.55	13.9	56.4
	TRAVEL BLANK	20-Jun-24	/	Water		X			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	June 21 2024	Time: 7:00	Received by:	Date: June 24	Time: 1007	Received by:	Time:

20.90

Environmental Division
Winnipeg
Work Order Reference
WP2415789

Telephone : +1 204 255 9720

Sample Intake					
Client: Kinross					
Cheque Enclosed with CoC		Yes		No	
Priority/Emergency Required (circle one)		Yes		No	
Time Sensitive Hold Time (circle one)		Yes		No	
Matrix (circle one)		Water	Soil/solid	Air	Biota / Other
# of Bottles received:	1x250ml (25)				
Green/White	3x500ml	Yellow/Black			
Purple/White	5x125ml	Light blue/White			
Warm red/White	10x125ml	Orange/Black			
Dark Green/White		Dark Blue/White			
Grey/black		Black/white			
Other: 10x40ml yellow vial 3x125 green/black 1x250ml clear					
Additional Comments:					

Login Check	Check yes if you have verified the following:	
	Yes	N/A
Received date/time		
Project/PO/LSD		
Quote/Office match CoC		
Sample IDs/Description		
Sample Date/time		
Sales Items as per CoC		
Express Due Dates		
Client due date matches ALS Due date		
Client recipient emails		
Guidelines/thresholds added		
Billing/payment recorded		
Field data entered		
Sub-contracting Forms Printed		
SUBCO/Chromatograph added to client contacts for required analysis		
Are sub-samples required?		
Has a SIF been submitted for this WO?		
Has the SIF been resolved?		

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2416896**		
Client	:	**Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	:	Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	807 630 0203	Telephone	: +1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	: 09-Jul-2024 10:50
PO	:	PPR-022-3	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	:	----	Issue Date	: 25-Jul-2024 15:51
Sampler	:	----		
Site	:	----		
Quote number	:	2024 Standing offer		
No. of samples received	:	4		
No. of samples analysed	:	4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Marinel Mongoso		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-09	CR-DS	CR-FDP	CR-REF	----
					Client sampling date / time	07-Jul-2024 10:00	07-Jul-2024 12:35	07-Jul-2024 13:15	07-Jul-2024 14:40	----
						WP2416896-001	WP2416896-002	WP2416896-003	WP2416896-004	----
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.72	6.82	6.91	7.20	----
Temperature, field	----	EF001/WP	0.10	°C		22.3	20.6	20.7	21.3	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.6	<2.0	<2.0	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		30.8	29.2	27.1	27.0	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		30.8	29.2	27.1	27.0	----
Conductivity	----	E100/WP	1.0	µS/cm		67.0	79.9	80.2	80.3	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		35.3	35.1	34.9	34.7	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		36.7	35.7	35.6	35.0	----
pH	----	E108/WP	0.10	pH units		7.47	7.46	7.49	7.46	----
Solids, total dissolved [TDS]	----	E162-L/WP	10.0	mg/L		74.1	56.4	55.8	54.4	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		7.8	5.9	7.1	5.8	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0370	0.0062	0.0067	0.0188	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.001	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.19	2.64	2.70	2.78	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0234	<0.0050	<0.0050	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0051	mg/L		0.0234	<0.0051	<0.0051	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----

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Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-09	CR-DS	CR-FDP	CR-REF	----
					Client sampling date / time	07-Jul-2024 10:00	07-Jul-2024 12:35	07-Jul-2024 13:15	07-Jul-2024 14:40	----
						WP2416896-001	WP2416896-002	WP2416896-003	WP2416896-004	----
						Result	Result	Result	Result	----
Anions and Nutrients										
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0417	0.0237	0.0260	0.0262	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.68	5.94	6.24	6.24	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0011	<0.0010	<0.0010	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0010	<0.0010	<0.0010	<0.0010	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		27.4	17.1	15.8	15.2	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.185	0.119	0.187	0.102	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00028	0.00033	0.00036	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00274	0.00548	0.00549	0.00549	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0109	0.00778	0.00834	0.00770	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000022	<0.000020	<0.000020	<0.000020	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.53	10.0	9.87	9.71	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000016	0.000017	0.000020	0.000017	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00066	0.00034	0.00038	0.00029	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00066	<0.00050	<0.00050	<0.00050	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00017	0.00013	0.00014	0.00013	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	SW-09	CR-DS	CR-FDP	CR-REF	----
Client sample ID									
Client sampling date / time					07-Jul-2024 10:00	07-Jul-2024 12:35	07-Jul-2024 13:15	07-Jul-2024 14:40	----
					WP2416896-001	WP2416896-002	WP2416896-003	WP2416896-004	----
					Result	Result	Result	Result	----
Total Metals									
Copper, total	7440-50-8	E420/WP	0.00050	mg/L	0.00114	0.00128	0.00141	0.00134	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L	0.632	0.220	0.254	0.172	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L	0.000133	0.000089	0.000103	0.000104	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L	<0.0010	<0.0010	0.0012	0.0010	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L	3.13	2.60	2.67	2.61	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L	0.0417	0.0121	0.0108	0.0116	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L	0.000167	0.000157	0.000177	0.000185	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L	0.00088	0.00128	0.00127	0.00120	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L	0.034	<0.030	<0.030	<0.030	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L	0.804	0.917	0.947	0.924	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L	0.00199	0.00185	0.00196	0.00179	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L	0.000109	0.000102	0.000138	0.000122	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L	1.52	1.83	2.01	1.75	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L	1.52	2.54	2.62	2.56	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L	0.0244	0.0284	0.0279	0.0276	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L	<0.50	2.17	2.37	2.27	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L	Not Detected	Not Detected	Not Detected	<0.00020	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-09	CR-DS	CR-FDP	CR-REF	----
					Client sampling date / time	07-Jul-2024 10:00	07-Jul-2024 12:35	07-Jul-2024 13:15	07-Jul-2024 14:40	----
						WP2416896-001	WP2416896-002	WP2416896-003	WP2416896-004	----
						Result	Result	Result	Result	----
Total Metals										
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00771	0.00546	0.00794	0.00494	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000206	0.000078	0.000086	0.000072	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00127	0.00069	0.00070	0.00058	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00047	0.00021	0.00022	<0.00020	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0804	0.0273	0.0221	0.0227	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	0.00025	0.00026	0.00026	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00256	0.00487	0.00497	0.00490	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0101	0.00739	0.00719	0.00723	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.42	9.99	9.88	9.86	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00044	0.00016	0.00014	0.00014	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00095	0.00112	0.00113	0.00114	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-09	CR-DS	CR-FDP	CR-REF	----
					Client sampling date / time	07-Jul-2024 10:00	07-Jul-2024 12:35	07-Jul-2024 13:15	07-Jul-2024 14:40	----
						WP2416896-001	WP2416896-002	WP2416896-003	WP2416896-004	----
						Result	Result	Result	Result	----
Dissolved Metals										
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.422	0.078	0.058	0.055	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000071	<0.000050	<0.000050	<0.000050	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0018	0.0018	0.0016	0.0019	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.87	2.47	2.48	2.45	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0225	0.00286	0.00190	0.00302	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000170	0.000135	0.000126	0.000123	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00076	0.00106	0.00107	0.00107	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	Not Detected	<0.050	<0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.797	0.924	0.938	0.949	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00174	0.00158	0.00158	0.00163	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		<0.000050	0.000168	Not Detected	<0.000050	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.32	1.60	1.60	1.61	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.42	2.44	2.46	2.52	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0236	0.0281	0.0282	0.0274	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	2.30	2.20	2.24	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.00011	<0.00010	<0.00010	<0.00010	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-09	CR-DS	CR-FDP	CR-REF	----
					Client sampling date / time	07-Jul-2024 10:00	07-Jul-2024 12:35	07-Jul-2024 13:15	07-Jul-2024 14:40	----
						WP2416896-001	WP2416896-002	WP2416896-003	WP2416896-004	----
						Result	Result	Result	Result	----
Dissolved Metals										
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00228	0.00059	0.00052	0.00062	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000179	0.000063	0.000063	0.000062	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00080	<0.00050	<0.00050	<0.00050	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0010	<0.0010	<0.0010	<0.0010	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00044	<0.00030	<0.00030	<0.00030	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2416896**	Page	: 1 of 22
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Jul-2024 10:50
PO	: PPR-022-3	Issue Date	: 25-Jul-2024 15:50
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Matrix Spike (MS) Recoveries								
Anions and Nutrients	Anonymous	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	565 %	75.0-125%	Recovery greater than upper data quality objective

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-DS	E298	07-Jul-2024	11-Jul-2024	28 days	4 days	✓	11-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	07-Jul-2024	11-Jul-2024	28 days	4 days	✓	11-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	07-Jul-2024	11-Jul-2024	28 days	4 days	✓	11-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-09	E298	07-Jul-2024	11-Jul-2024	28 days	4 days	✓	11-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.Cl-L	07-Jul-2024	09-Jul-2024	28 days	2 days	✓	09-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.Cl-L	07-Jul-2024	09-Jul-2024	28 days	2 days	✓	09-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.Cl-L	07-Jul-2024	09-Jul-2024	28 days	2 days	✓	09-Jul-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.Cl-L	07-Jul-2024	09-Jul-2024	28 days	2 days	✓	09-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO3-L	07-Jul-2024	09-Jul-2024	7 days	2 days	✓	09-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO3-L	07-Jul-2024	09-Jul-2024	7 days	2 days	✓	09-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO3-L	07-Jul-2024	09-Jul-2024	7 days	2 days	✓	09-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO3-L	07-Jul-2024	09-Jul-2024	7 days	2 days	✓	09-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-DS	E235.NO2-L	07-Jul-2024	09-Jul-2024	7 days	2 days	✓	09-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-FDP	E235.NO2-L	07-Jul-2024	09-Jul-2024	7 days	2 days	✓	09-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] CR-REF	E235.NO2-L	07-Jul-2024	09-Jul-2024	7 days	2 days	✓	09-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-09	E235.NO2-L	07-Jul-2024	09-Jul-2024	7 days	2 days	✓	09-Jul-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-DS	E235.SO4	07-Jul-2024	09-Jul-2024	28 days	2 days	✓	09-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-FDP	E235.SO4	07-Jul-2024	09-Jul-2024	28 days	2 days	✓	09-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] CR-REF	E235.SO4	07-Jul-2024	09-Jul-2024	28 days	2 days	✓	09-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] SW-09	E235.SO4	07-Jul-2024	09-Jul-2024	28 days	2 days	✓	09-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E339-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E339-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	07-Jul-2024	11-Jul-2024	14 days	4 days	✓	11-Jul-2024	14 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.Cr-L	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-DS	E509	07-Jul-2024	12-Jul-2024	28 days	5 days	✓	12-Jul-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-FDP	E509	07-Jul-2024	12-Jul-2024	28 days	5 days	✓	12-Jul-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-REF	E509	07-Jul-2024	12-Jul-2024	28 days	5 days	✓	12-Jul-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	07-Jul-2024	12-Jul-2024	28 days	5 days	✓	12-Jul-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-09	E421.P-L	07-Jul-2024	22-Jul-2024	180 days	15 days	✓	22-Jul-2024	180 days	15 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-DS	EF001	07-Jul-2024	----	----	----		09-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-FDP	EF001	07-Jul-2024	----	----	----		09-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
CR-REF	EF001	07-Jul-2024	----	----	----		09-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-09	EF001	07-Jul-2024	----	----	----		09-Jul-2024	----	2 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-DS	E358-L	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	10-Jul-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	10-Jul-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	10-Jul-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-09	E358-L	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	10-Jul-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
CR-DS	E283	07-Jul-2024	12-Jul-2024	14 days	5 days	✓	16-Jul-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] CR-FDP	E283	07-Jul-2024	12-Jul-2024	14 days	5 days	✓	16-Jul-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] CR-REF	E283	07-Jul-2024	12-Jul-2024	14 days	5 days	✓	16-Jul-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-09	E283	07-Jul-2024	12-Jul-2024	14 days	5 days	✓	16-Jul-2024	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-DS	E290	07-Jul-2024	10-Jul-2024	14 days	3 days	✓	10-Jul-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-FDP	E290	07-Jul-2024	10-Jul-2024	14 days	3 days	✓	10-Jul-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] CR-REF	E290	07-Jul-2024	10-Jul-2024	14 days	3 days	✓	10-Jul-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-09	E290	07-Jul-2024	10-Jul-2024	14 days	3 days	✓	10-Jul-2024	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-DS	E100	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	10-Jul-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-FDP	E100	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	10-Jul-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] CR-REF	E100	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	10-Jul-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-09	E100	07-Jul-2024	10-Jul-2024	28 days	3 days	✓	10-Jul-2024	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-DS	E108	07-Jul-2024	10-Jul-2024	14 days	3 days	✓	10-Jul-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-FDP	E108	07-Jul-2024	10-Jul-2024	14 days	3 days	✓	10-Jul-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] CR-REF	E108	07-Jul-2024	10-Jul-2024	14 days	3 days	✓	10-Jul-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-09	E108	07-Jul-2024	10-Jul-2024	14 days	3 days	✓	10-Jul-2024	14 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-DS	E162-L	07-Jul-2024	----	----	----		10-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-FDP	E162-L	07-Jul-2024	----	----	----		10-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] CR-REF	E162-L	07-Jul-2024	----	----	----		10-Jul-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-09	E162-L	07-Jul-2024	----	----	----		10-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-DS	E160-L	07-Jul-2024	----	----	----		10-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-FDP	E160-L	07-Jul-2024	----	----	----		10-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] CR-REF	E160-L	07-Jul-2024	----	----	----		10-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	07-Jul-2024	----	----	----		10-Jul-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	07-Jul-2024	12-Jul-2024	28 days	5 days	✓	12-Jul-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	07-Jul-2024	12-Jul-2024	28 days	5 days	✓	12-Jul-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	07-Jul-2024	12-Jul-2024	28 days	5 days	✓	12-Jul-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	07-Jul-2024	12-Jul-2024	28 days	5 days	✓	12-Jul-2024	28 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	07-Jul-2024	23-Jul-2024	180 days	16 days	✓	23-Jul-2024	180 days	16 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1540931	1	4	25.0	5.0	✓
Alkalinity Species by Titration	E290	1538767	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1539542	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1536008	2	5	40.0	5.0	✓
Conductivity in Water	E100	1538769	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1558226	0	4	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1541332	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1558224	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1536855	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1558227	0	4	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1539573	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1536009	2	5	40.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1536010	2	5	40.0	5.0	✓
pH by Meter	E108	1538768	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1536011	2	20	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1536751	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1559595	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1539574	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1541330	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559591	1	36	2.7	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1538902	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1559593	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1536753	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1539572	1	4	25.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1540931	1	4	25.0	5.0	✓
Alkalinity Species by Titration	E290	1538767	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1539542	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1536008	2	5	40.0	5.0	✓
Conductivity in Water	E100	1538769	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1558226	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1541332	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1558224	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1536855	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1558227	1	4	25.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1539573	1	4	25.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1536009	2	5	40.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1536010	2	5	40.0	5.0	✓
pH by Meter	E108	1538768	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1536011	2	20	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1536751	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1559595	2	4	50.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1539574	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1541330	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559591	2	36	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1538902	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1559593	2	13	15.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1536753	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1539572	1	4	25.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1540931	1	4	25.0	5.0	✓
Alkalinity Species by Titration	E290	1538767	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1539542	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1536008	2	5	40.0	5.0	✓
Conductivity in Water	E100	1538769	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1558226	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1541332	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1558224	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1536855	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1558227	1	4	25.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1539573	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1536009	2	5	40.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1536010	2	5	40.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1536011	2	20	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1536751	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1559595	2	4	50.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1539574	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1541330	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559591	2	36	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1538902	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1559593	2	13	15.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1536753	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1539572	1	4	25.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1539542	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1536008	2	5	40.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1558226	0	4	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1541332	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1558224	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1536855	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1558227	0	4	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1539573	1	4	25.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1536009	2	5	40.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1536010	2	5	40.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1536011	2	20	10.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1559595	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1539574	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1541330	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559591	1	36	2.7	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1538902	2	40	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1559593	1	13	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1539572	1	4	25.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2416896**	Page	: 1 of 22
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Jul-2024 10:50
PO	: PPR-022-3	Date Analysis Commenced	: 09-Jul-2024
C-O-C number	: ----	Issue Date	: 25-Jul-2024 15:50
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Marinel Mongoso		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1536751)											
WP2416881-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	145	143	1.85%	20%	----
Physical Tests (QC Lot: 1536753)											
WP2416900-008	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	18.3	18.7	2.16%	20%	----
Physical Tests (QC Lot: 1538767)											
WP2416896-002	CR-DS	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	29.2	27.2	7.09%	20%	----
Physical Tests (QC Lot: 1538768)											
WP2416896-002	CR-DS	pH	----	E108	0.10	pH units	7.46	7.43	0.403%	4%	----
Physical Tests (QC Lot: 1538769)											
WP2416896-002	CR-DS	Conductivity	----	E100	1.0	µS/cm	79.9	82.0	2.59%	10%	----
Physical Tests (QC Lot: 1540931)											
WP2416896-001	SW-09	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.6	<2.0	0.6	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1536008)											
WP2416877-003	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	26.8	26.8	0.155%	20%	----
Anions and Nutrients (QC Lot: 1536009)											
WP2416877-003	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0640	0.0648	1.23%	20%	----
Anions and Nutrients (QC Lot: 1536010)											
WP2416877-003	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1536011)											
WP2416877-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	41.0	40.8	0.405%	20%	----
Anions and Nutrients (QC Lot: 1536077)											
WP2416896-002	CR-DS	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	5.94	5.97	0.590%	20%	----
Anions and Nutrients (QC Lot: 1536078)											
WP2416896-002	CR-DS	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.64	2.65	0.257%	20%	----
Anions and Nutrients (QC Lot: 1536079)											
WP2416896-002	CR-DS	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1536080)											
WP2416896-002	CR-DS	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1538902)											
WP2416754-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	3.18	3.12	1.90%	20%	----
Anions and Nutrients (QC Lot: 1538903)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1538903) - continued											
WP2416896-002	CR-DS	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0237	0.0231	2.86%	20%	----
Anions and Nutrients (QC Lot: 1539542)											
WP2416877-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0195	0.0186	0.0009	Diff <2x LOR	----
Cyanides (QC Lot: 1539572)											
WP2416896-001	SW-09	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0010	<0.0010	0.00003	Diff <2x LOR	----
Cyanides (QC Lot: 1539573)											
WP2416896-001	SW-09	Cyanide, free	----	E339-L	0.0010	mg/L	0.0011	0.0011	0.00004	Diff <2x LOR	----
Cyanides (QC Lot: 1539574)											
WP2416896-001	SW-09	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1536855)											
WP2415819-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	9.94	9.95	0.0617%	20%	----
Total Metals (QC Lot: 1541330)											
WP2415812-007	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1559625)											
WP2416896-003	CR-FDP	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.187	0.191	2.48%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00033	0.00033	0.000002	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00549	0.00560	2.10%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00834	0.00805	3.48%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.87	9.81	0.553%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000020	0.000023	0.000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00014	0.00015	0.000008	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00141	0.00139	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.254	0.250	1.40%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000103	0.000100	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0012	0.0011	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	2.67	2.58	3.70%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0108	0.0107	1.54%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000177	0.000170	0.000007	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1559625) - continued											
WP2416896-003	CR-FDP	Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00127	0.00135	0.00008	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.947	0.933	1.53%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00196	0.00191	0.00005	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000138	0.000134	0.000005	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.01	2.04	1.30%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.62	2.55	2.72%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0279	0.0275	1.43%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	2.37	2.30	0.07	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00794	0.00825	3.77%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000086	0.000085	0.0000009	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00070	0.00070	0.0000009	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00022	0.00020	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1559626)											
WP2416896-003	CR-FDP	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00038	0.00039	0.00001	Diff <2x LOR	----
Total Metals (QC Lot: 1559627)											
WP2416896-003	CR-FDP	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	0.034	0.004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1541332)											
WP2416683-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1558224)											
WP2416534-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00040	0.00040	0.000001	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0103	0.0100	2.82%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.032	0.031	0.0002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1558224) - continued											
WP2416534-001	Anonymous	Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	22.0	21.5	2.03%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000011	0.000011	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00237	0.00237	0.0885%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0017	0.0017	0.00007	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.68	4.67	0.104%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00156	0.00157	0.550%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00056	0.00054	0.00002	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.78	1.77	0.800%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00192	0.00189	0.00003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.396	0.396	0.0008	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	28.9	28.8	0.336%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.130	0.128	2.00%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	3.79	4.02	0.23	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	0.00010	0.000004	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000085	0.000080	0.000005	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0024	0.0024	0.00003	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1536751)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1536753)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1538767)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1538769)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1540931)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1536008)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1536009)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1536010)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1536011)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1536077)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1536078)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1536079)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1536080)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1538902)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1538903)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1539542)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1539572)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1539573)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1539574)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1536855)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1541330)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1559591)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1559591) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1559593)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1559595)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1559625)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1559625) - continued						
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1559626)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1559627)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1541332)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1558224)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1558224) - continued						
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1558226)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1558226) - continued						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1558227)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1536751)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.9	85.0	115	----
Physical Tests (QCLot: 1536753)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	93.2	85.0	115	----
Physical Tests (QCLot: 1538767)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1538768)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1538769)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.5	90.0	110	----
Physical Tests (QCLot: 1540931)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	105	85.0	115	----
Anions and Nutrients (QCLot: 1536008)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1536009)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1536010)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1536011)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1536077)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1536078)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1536079)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1536080)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1538902)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.6	80.0	120	----
Anions and Nutrients (QCLot: 1538903)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1539542)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.6	85.0	115	----
Cyanides (QCLot: 1539572)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	90.6	80.0	120	----
Cyanides (QCLot: 1539573)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	93.3	80.0	120	----
Cyanides (QCLot: 1539574)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.5	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1536855)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	106	80.0	120	----
Total Metals (QCLot: 1541330)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Total Metals (QCLot: 1559591)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	106	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	109	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	106	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	106	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	102	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	105	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	110	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	107	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	102	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	112	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1559591) - continued									
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.7	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	105	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	99.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	104	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	107	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	106	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	105	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	106	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	103	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	105	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	104	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	105	80.0	120	----
Total Metals (QCLot: 1559593)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	112	80.0	120	----
Total Metals (QCLot: 1559595)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Total Metals (QCLot: 1559625)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.3	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	98.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	95.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.7	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.5	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.8	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.5	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	95.7	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	95.9	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	95.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1559625) - continued									
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.8	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.3	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.7	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.8	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	95.6	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	100	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	94.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	100	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.5	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.3	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	88.3	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.4	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.9	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.7	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.1	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.3	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.2	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.2	80.0	120	----
Total Metals (QCLot: 1559626)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	95.7	80.0	120	----
Total Metals (QCLot: 1559627)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	100	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1558224)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	97.8	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1558224) - continued									
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	90.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.9	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	96.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.0	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.7	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.2	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	95.2	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	93.1	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	95.3	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	94.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	98.8	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	96.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	94.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	95.6	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	94.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	101	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.3	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	95.4	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	94.5	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	93.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.1	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	99.0	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.1	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	90.6	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	97.4	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	93.2	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.2	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	93.9	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.6	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.2	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.0	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.7	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1558226)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	95.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1536008)										
WP2416877-003	Anonymous	Chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1536009)										
WP2416877-003	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.66 mg/L	2.5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1536010)										
WP2416877-003	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	2.83 mg/L	0.5 mg/L	565	75.0	125	----
Anions and Nutrients (QCLot: 1536011)										
WP2416877-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.5 mg/L	100 mg/L	98.5	75.0	125	----
Anions and Nutrients (QCLot: 1536077)										
WP2416896-002	CR-DS	Sulfate (as SO4)	14808-79-8	E235.SO4	99.6 mg/L	100 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 1536078)										
WP2416896-002	CR-DS	Chloride	16887-00-6	E235.Cl-L	99.6 mg/L	100 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 1536079)										
WP2416896-002	CR-DS	Nitrate (as N)	14797-55-8	E235.NO3-L	2.50 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1536080)										
WP2416896-002	CR-DS	Nitrite (as N)	14797-65-0	E235.NO2-L	0.514 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1538902)										
WP2416758-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1538903)										
WP2416896-003	CR-FDP	Phosphorus, total	7723-14-0	E372-U	0.212 mg/L	0.25 mg/L	84.8	70.0	130	----
Anions and Nutrients (QCLot: 1539542)										
WP2416877-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0951 mg/L	0.1 mg/L	95.1	75.0	125	----
Cyanides (QCLot: 1539572)										
WP2416896-001	SW-09	Cyanide, weak acid dissociable	----	E336-L	0.111 mg/L	0.125 mg/L	88.5	75.0	125	----
Cyanides (QCLot: 1539573)										
WP2416896-001	SW-09	Cyanide, free	----	E339-L	0.116 mg/L	0.125 mg/L	92.8	75.0	125	----
Cyanides (QCLot: 1539574)										
WP2416896-001	SW-09	Cyanide, strong acid dissociable (Total)	----	E333-L	0.204 mg/L	0.25 mg/L	81.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1536855)										
WP2415819-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1541330)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1541330) - continued										
WP2415812-008	Anonymous	Mercury, total	7439-97-6	E508	0.0000984 mg/L	0 mg/L	98.4	70.0	130	----
Total Metals (QCLot: 1559625)										
WP2416896-003	CR-FDP	Aluminum, total	7429-90-5	E420	0.194 mg/L	0.2 mg/L	97.1	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Barium, total	7440-39-3	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00984 mg/L	0.01 mg/L	98.4	70.0	130	----
		Boron, total	7440-42-8	E420	0.111 mg/L	0.1 mg/L	111	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00394 mg/L	0.004 mg/L	98.4	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00989 mg/L	0.01 mg/L	98.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0398 mg/L	0.04 mg/L	99.4	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Copper, total	7440-50-8	E420	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Iron, total	7439-89-6	E420	2.03 mg/L	2 mg/L	101	70.0	130	----
		Lead, total	7439-92-1	E420	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0996 mg/L	0.1 mg/L	99.6	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0390 mg/L	0.04 mg/L	97.5	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.80 mg/L	10 mg/L	98.0	70.0	130	----
		Potassium, total	7440-09-7	E420	3.80 mg/L	4 mg/L	95.0	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0418 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, total	7440-21-3	E420	9.25 mg/L	10 mg/L	92.5	70.0	130	----
		Silver, total	7440-22-4	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.3 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00384 mg/L	0.004 mg/L	96.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Tin, total	7440-31-5	E420	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0391 mg/L	0.04 mg/L	97.7	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00385 mg/L	0.004 mg/L	96.2	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0988 mg/L	0.1 mg/L	98.8	70.0	130	----
		Zinc, total	7440-66-6	E420	0.397 mg/L	0.4 mg/L	99.2	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
Total Metals (QCLot: 1559626)										
WP2416896-003	CR-FDP	Chromium, total	7440-47-3	E420.Cr-L	0.0398 mg/L	0.04 mg/L	99.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1559627)										
WP2416896-003	CR-FDP	Phosphorus, total	7723-14-0	E420.P-L	9.80 mg/L	10 mg/L	98.0	70.0	130	----
Dissolved Metals (QCLot: 1541332)										
WP2416683-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000105 mg/L	0 mg/L	105	70.0	130	----
Dissolved Metals (QCLot: 1558224)										
WP2416534-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.203 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00934 mg/L	0.01 mg/L	93.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00399 mg/L	0.004 mg/L	99.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.99 mg/L	2 mg/L	99.5	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0198 mg/L	0.02 mg/L	99.1	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0938 mg/L	0.1 mg/L	93.8	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0385 mg/L	0.04 mg/L	96.3	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.2 mg/L	10 mg/L	112	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.13 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0456 mg/L	0.04 mg/L	114	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00379 mg/L	0.004 mg/L	94.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.0 mg/L	20 mg/L	105	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00394 mg/L	0.004 mg/L	98.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00364 mg/L	0.004 mg/L	91.1	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.403 mg/L	0.4 mg/L	101	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0411 mg/L	0.04 mg/L	103	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer
		Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-09	7-Jul-24	10:00	Water		X			6.72	22.3	67.8
	CR-DS	7-Jul-24	12:35	Water		X			6.82	20.6	77.6
	CR-FDP	7-Jul-24	13:15	Water		X			6.91	20.7	77.9
	CR-REF	7-Jul-24	14:40	Water		X			7.2	21.3	78.8

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	July 8 2024	Time: 9:00	Received by: Aleeinghaar	Date: 9 July 2024	Time: 10:50	Received by:	Time:

18.6°C

Environmental Division
Winnipeg
Work Order Reference
WP2416896

Telephone : +1 204 255 9720

Sample Intake

Client: KINROSS					**Temp:** 18.6°C	
Express TAT?	(no)	yes: same day	1 day	2 day	3 days	4 day
Short hold time?	no	yes: <24 hrs	1 day	(2 days)	3 days	4 days
Cooling method	none	Loose ice	(Ice packs)		**Cooling initiated** ☑	
Matrix	(Water)	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white	4x500mL 4x125mL	Orange/black	
Purple/white	8 x 100mL	Dark blue/white	
Red/white	8 x 125mL	Black/white	
Dark green/white	4 x 60mL	Brown/white	
Grey/black		Pink/white	
Yellow/black	8 x 40mL	Beige/white	
Light blue/white		Other (specify)	

Comments:

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2417173**		
Client	:	**Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	:	Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	807 630 0203	Telephone	: +1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	: 11-Jul-2024 10:35
PO	:	PPR-022-3	Date Analysis Commenced	: 11-Jul-2024
C-O-C number	:	----	Issue Date	: 25-Jul-2024 16:02
Sampler	:	----		
Site	:	----		
Quote number	:	2024 Standing offer		
No. of samples received	:	4		
No. of samples analysed	:	4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Rhovee Guevarra		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
°C	degrees celsius
pH units	pH units
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-GL-B	SW-GL	----
					Client sampling date / time	08-Jul-2024 12:45	08-Jul-2024 11:30	08-Jul-2024 10:10	08-Jul-2024 10:01	----
						WP2417173-001	WP2417173-002	WP2417173-003	WP2417173-004	----
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.34	3.33	6.40	7.60	----
Temperature, field	----	EF001/WP	0.10	°C		23.2	22.2	13.7	21.7	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		3.3	23.8	6.7	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		29.8	<1.0	38.3	31.2	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		29.8	<1.0	38.3	31.2	----
Conductivity	----	E100/WP	1.0	µS/cm		65.2	34.2	76.5	64.1	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		36.4	9.20	38.3	32.9	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		35.1	8.90	36.7	30.8	----
pH	----	E108/WP	0.10	pH units		7.31	4.32	7.15	7.52	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		78.2	57.0	67.2	57.2	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.3	<1.0	11.9	<1.0	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0460	0.0785	0.356	0.0156	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.001	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.15	<0.10	0.24	0.16	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0114	<0.0050	<0.0050	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0051	mg/L		0.0114	<0.0051	<0.0051	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	SW-04	SW-TR	SW-GL-B	SW-GL	----
Client sample ID									
Client sampling date / time					08-Jul-2024 12:45	08-Jul-2024 11:30	08-Jul-2024 10:10	08-Jul-2024 10:01	----
					WP2417173-001	WP2417173-002	WP2417173-003	WP2417173-004	----
					Result	Result	Result	Result	----
Anions and Nutrients									
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0366	0.0121	0.150	0.0107	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.62	<0.30	0.54	0.63	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	0.0013	0.0013	0.0014	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	23.6	55.0	11.9	11.2	----
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	0.136	0.563	0.0157	0.0168	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L	<0.00010	0.00031	<0.00010	<0.00010	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L	0.00266	0.00641	0.0151	0.00152	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L	0.00983	0.00672	0.0140	0.00678	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L	<0.000020	0.000026	<0.000020	<0.000020	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L	<0.000050	<0.000050	<0.000050	Not Detected	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L	<0.0000050	0.0000166	Not Detected	Not Detected	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L	9.29	2.36	10.8	8.81	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L	0.000011	<0.000010	<0.000010	<0.000010	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L	0.00052	0.00087	<0.00010	<0.00010	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L	0.00052	0.00087	<0.00050	Not Detected	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L	0.00014	0.00039	0.00014	<0.00010	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-GL-B	SW-GL	----
					Client sampling date / time	08-Jul-2024 12:45	08-Jul-2024 11:30	08-Jul-2024 10:10	08-Jul-2024 10:01	----
						WP2417173-001	WP2417173-002	WP2417173-003	WP2417173-004	----
						Result	Result	Result	Result	----
Total Metals										
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00094	0.00072	<0.00050	<0.00050	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.565	1.45	3.34	0.072	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000109	0.000616	<0.000050	<0.000050	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	Not Detected	<0.0010	<0.0010	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.90	0.730	2.36	2.14	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0384	0.00927	0.536	0.00984	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000165	0.000076	0.000132	0.000106	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00076	0.00087	<0.00050	<0.00050	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	0.124	<0.030	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	0.124	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.750	<0.050	0.713	0.622	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00177	<0.00020	0.00210	0.00170	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000121	0.000136	0.000094	0.000069	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.31	4.32	1.96	0.73	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.39	0.773	1.18	1.18	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0225	0.0139	0.0257	0.0208	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	SW-04	SW-TR	SW-GL-B	SW-GL	----
					Client sample ID				
					Client sampling date / time	08-Jul-2024 12:45	08-Jul-2024 11:30	08-Jul-2024 10:10	08-Jul-2024 10:01	----
					WP2417173-001	WP2417173-002	WP2417173-003	WP2417173-004	----
					Result	Result	Result	Result	----
Total Metals									
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L	<0.00010	0.00016	<0.00010	Not Detected	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L	Not Detected	<0.00010	Not Detected	Not Detected	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L	0.00514	0.00517	0.00056	0.00038	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L	<0.00010	Not Detected	Not Detected	Not Detected	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L	0.000191	0.000097	0.000055	0.000037	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L	0.00108	0.00111	<0.00050	<0.00050	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L	<0.0030	0.0052	<0.0030	<0.0030	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L	0.00038	0.00044	<0.00020	<0.00020	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L	0.0820	0.603	0.0083	0.0134	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L	<0.00010	0.00017	Not Detected	Not Detected	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L	0.00254	0.00641	0.0144	0.00144	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L	0.00895	0.00679	0.0106	0.00686	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L	<0.000020	0.000030	Not Detected	Not Detected	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L	Not Detected	<0.000050	Not Detected	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L	<0.010	Not Detected	<0.010	<0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L	<0.0000050	0.0000182	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L	9.58	2.39	11.1	9.30	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L	Not Detected	<0.000010	<0.000010	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L	0.00043	0.00094	<0.00010	<0.00010	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L	<0.00050	0.00094	<0.00050	<0.00050	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-GL-B	SW-GL	----
					Client sampling date / time	08-Jul-2024 12:45	08-Jul-2024 11:30	08-Jul-2024 10:10	08-Jul-2024 10:01	----
						WP2417173-001	WP2417173-002	WP2417173-003	WP2417173-004	----
						Result	Result	Result	Result	----
Dissolved Metals										
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00040	0.00014	<0.00010	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00088	0.00068	<0.00020	0.00022	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.420	1.47	2.79	0.042	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000064	0.000599	<0.000050	Not Detected	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	<0.0010	0.0013	0.0012	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.03	0.784	2.58	2.36	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0273	0.00954	0.548	0.00258	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000171	0.000078	0.000116	0.000081	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00072	0.00094	<0.00050	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	0.110	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	0.110	<0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.785	<0.050	0.766	0.666	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00168	<0.00020	0.00208	0.00180	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000083	0.000138	<0.000050	0.000082	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.23	4.37	2.08	0.711	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.46	0.860	1.25	1.21	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0232	0.0141	0.0248	0.0213	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	<0.00020	<0.00020	Not Detected	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-TR	SW-GL-B	SW-GL	----
					Client sampling date / time	08-Jul-2024 12:45	08-Jul-2024 11:30	08-Jul-2024 10:10	08-Jul-2024 10:01	----
						WP2417173-001	WP2417173-002	WP2417173-003	WP2417173-004	----
						Result	Result	Result	Result	----
Dissolved Metals										
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00018	Not Detected	Not Detected	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	0.00014	Not Detected	Not Detected	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00202	0.00545	<0.00030	<0.00030	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	Not Detected	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000200	0.000101	0.000054	0.000040	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00071	0.00102	<0.00050	<0.00050	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0011	0.0054	<0.0010	<0.0010	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00042	0.00047	<0.00030	<0.00030	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2417173**	Page	: 1 of 22
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Jul-2024 10:35
PO	: PPR-022-3	Issue Date	: 25-Jul-2024 16:03
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1558251 001	----	Tin, dissolved	7440-31-5	E421	0.00015 B mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.Cl-L	08-Jul-2024	11-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.Cl-L	08-Jul-2024	11-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.Cl-L	08-Jul-2024	11-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.Cl-L	08-Jul-2024	11-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO3-L	08-Jul-2024	11-Jul-2024	7 days	3 days	✓	11-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO3-L	08-Jul-2024	11-Jul-2024	7 days	3 days	✓	11-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO3-L	08-Jul-2024	11-Jul-2024	7 days	3 days	✓	11-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO3-L	08-Jul-2024	11-Jul-2024	7 days	3 days	✓	11-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-04	E235.NO2-L	08-Jul-2024	11-Jul-2024	7 days	3 days	✓	11-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL	E235.NO2-L	08-Jul-2024	11-Jul-2024	7 days	3 days	✓	11-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL-B	E235.NO2-L	08-Jul-2024	11-Jul-2024	7 days	3 days	✓	11-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP] SW-TR	E235.NO2-L	08-Jul-2024	11-Jul-2024	7 days	3 days	✓	11-Jul-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-04	E235.SO4	08-Jul-2024	11-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL	E235.SO4	08-Jul-2024	11-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL-B	E235.SO4	08-Jul-2024	11-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-TR	E235.SO4	08-Jul-2024	11-Jul-2024	28 days	3 days	✓	11-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-04	E372-U	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	15-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL	E372-U	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	15-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL-B	E372-U	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	15-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TR	E372-U	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	15-Jul-2024	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.Cr-L	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-04	E509	08-Jul-2024	15-Jul-2024	28 days	7 days	✓	15-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	08-Jul-2024	15-Jul-2024	28 days	7 days	✓	15-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL-B	E509	08-Jul-2024	15-Jul-2024	28 days	7 days	✓	15-Jul-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	08-Jul-2024	15-Jul-2024	28 days	7 days	✓	15-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-04	E421.P-L	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	08-Jul-2024	22-Jul-2024	180 days	14 days	✓	22-Jul-2024	180 days	14 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-04	EF001	08-Jul-2024	----	----	----		12-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL	EF001	08-Jul-2024	----	----	----		12-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL-B	EF001	08-Jul-2024	----	----	----		12-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-TR	EF001	08-Jul-2024	----	----	----		12-Jul-2024	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL	E358-L	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL-B	E358-L	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
SW-04	E283	08-Jul-2024	15-Jul-2024	14 days	7 days	✓	16-Jul-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-GL	E283	08-Jul-2024	15-Jul-2024	14 days	7 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-GL-B	E283	08-Jul-2024	15-Jul-2024	14 days	7 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-TR	E283	08-Jul-2024	15-Jul-2024	14 days	7 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-04	E290	08-Jul-2024	12-Jul-2024	14 days	4 days	✓	12-Jul-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL	E290	08-Jul-2024	12-Jul-2024	14 days	4 days	✓	12-Jul-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL-B	E290	08-Jul-2024	12-Jul-2024	14 days	4 days	✓	12-Jul-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TR	E290	08-Jul-2024	12-Jul-2024	14 days	4 days	✓	12-Jul-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-04	E100	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL	E100	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL-B	E100	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TR	E100	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-04	E108	08-Jul-2024	12-Jul-2024	14 days	4 days	✓	12-Jul-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL	E108	08-Jul-2024	12-Jul-2024	14 days	4 days	✓	12-Jul-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL-B	E108	08-Jul-2024	12-Jul-2024	14 days	4 days	✓	12-Jul-2024	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TR	E108	08-Jul-2024	12-Jul-2024	14 days	4 days	✓	12-Jul-2024	14 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-04	E162-L	08-Jul-2024	----	----	----		12-Jul-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL	E162-L	08-Jul-2024	----	----	----		12-Jul-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL-B	E162-L	08-Jul-2024	----	----	----		12-Jul-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TR	E162-L	08-Jul-2024	----	----	----		12-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	08-Jul-2024	----	----	----		12-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL	E160-L	08-Jul-2024	----	----	----		12-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL-B	E160-L	08-Jul-2024	----	----	----		12-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	08-Jul-2024	----	----	----		12-Jul-2024	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL	E420.P-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL-B	E420.P-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TR	E420.P-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1545314	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1546406	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1546471	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1541055	0	6	0.0	5.0	✗
Conductivity in Water	E100	1546404	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1558253	0	4	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1544970	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1558251	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1541119	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1558254	0	4	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1545346	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1541058	0	4	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1541059	0	4	0.0	5.0	✗
pH by Meter	E108	1546405	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1541052	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1541111	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1559644	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1545344	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1546706	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559642	0	14	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1542254	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1559643	0	7	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1541115	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1545345	1	5	20.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1545314	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1546406	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1546471	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1541055	1	6	16.6	5.0	✓
Conductivity in Water	E100	1546404	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1558253	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1544970	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1558251	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1541119	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1558254	1	4	25.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1545346	1	5	20.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1541058	1	4	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1541059	1	4	25.0	5.0	✓
pH by Meter	E108	1546405	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1541052	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1541111	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1559644	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1545344	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1546706	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559642	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1542254	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1559643	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1541115	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1545345	1	5	20.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1545314	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1546406	1	12	8.3	5.0	✓
Ammonia by Fluorescence	E298	1546471	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1541055	1	6	16.6	5.0	✓
Conductivity in Water	E100	1546404	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1558253	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1544970	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1558251	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1541119	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1558254	1	4	25.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1545346	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1541058	1	4	25.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1541059	1	4	25.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1541052	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1541111	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1559644	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1545344	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1546706	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559642	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1542254	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1559643	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1541115	1	11	9.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1545345	1	5	20.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1546471	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1541055	0	6	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1558253	0	4	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1544970	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1558251	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1541119	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1558254	0	4	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1545346	1	5	20.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1541058	0	4	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1541059	0	4	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1541052	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1559644	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1545344	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1546706	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559642	0	14	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1542254	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1559643	0	7	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1545345	1	5	20.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2417173**	Page	: 1 of 15
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Jul-2024 10:35
PO	: PPR-022-3	Date Analysis Commenced	: 11-Jul-2024
C-O-C number	: ----	Issue Date	: 25-Jul-2024 16:02
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Kelly Fischer	Technical Specialist	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Rhovee Guevarra		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1541111)											
WP2417164-003	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	59.6	57.9	1.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1541115)											
WP2417168-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	20.9	20.5	1.93%	20%	----
Physical Tests (QC Lot: 1545314)											
BF2400177-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.9	2.4	0.5	Diff <2x LOR	----
Physical Tests (QC Lot: 1546404)											
WP2417173-004	SW-GL	Conductivity	----	E100	1.0	µS/cm	64.1	66.0	2.92%	10%	----
Physical Tests (QC Lot: 1546405)											
WP2417173-004	SW-GL	pH	----	E108	0.10	pH units	7.52	7.57	0.663%	4%	----
Physical Tests (QC Lot: 1546406)											
WP2417173-004	SW-GL	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	31.2	31.7	1.59%	20%	----
Anions and Nutrients (QC Lot: 1541052)											
WP2417164-005	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	1.16	1.15	0.010	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1542254)											
WP2417163-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0092	0.0086	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1546471)											
WP2417166-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0180	0.0117	0.0063	Diff <2x LOR	----
Cyanides (QC Lot: 1545344)											
WP2417157-002	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0023	0.0022	0.00008	Diff <2x LOR	----
Cyanides (QC Lot: 1545345)											
WP2417161-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1545346)											
WP2417161-001	Anonymous	Cyanide, free	----	E339-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1541119)											
WP2416300-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	9.43	9.46	0.355%	20%	----
Total Metals (QC Lot: 1546706)											
WP2417001-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1544970)											
WP2417121-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1558251)											
WP2417173-001	SW-04	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0820	0.0836	1.88%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00254	0.00251	1.03%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00895	0.00879	1.78%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	9.58	9.78	2.05%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00088	0.00089	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.420	0.427	1.49%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000064	0.000064	0.00000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0016	0.0018	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	3.03	3.05	0.570%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0273	0.0270	0.932%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000171	0.000162	0.000009	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00072	0.00075	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.785	0.775	1.22%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00168	0.00163	0.00005	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000083	0.000067	0.000016	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.23	1.23	0.363%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.46	1.47	0.730%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0232	0.0231	0.396%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00202	0.00214	0.00012	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1558251) - continued											
WP2417173-001	SW-04	Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000200	0.000204	1.55%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00071	0.00070	0.000002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0011	0.0016	0.0005	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00042	0.00044	0.00002	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1541111)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1541115)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1545314)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1546404)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1546406)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1541052)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1541055)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1541058)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1541059)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1542254)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1546471)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1545344)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1545345)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1545346)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1541119)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1546706)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1559642)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1559642) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1559642) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1559643)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1559644)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1544970)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1558251)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1558251) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	# 0.00015	B
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1558253)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1558254)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1541111)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.8	85.0	115	----
Physical Tests (QCLot: 1541115)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	90.3	85.0	115	----
Physical Tests (QCLot: 1545314)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	105	85.0	115	----
Physical Tests (QCLot: 1546404)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.6	90.0	110	----
Physical Tests (QCLot: 1546405)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1546406)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 1541052)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1541055)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1541058)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.3	90.0	110	----
Anions and Nutrients (QCLot: 1541059)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1542254)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.9	80.0	120	----
Anions and Nutrients (QCLot: 1546471)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Cyanides (QCLot: 1545344)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	90.4	80.0	120	----
Cyanides (QCLot: 1545345)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	90.9	80.0	120	----
Cyanides (QCLot: 1545346)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	86.3	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1541119)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.0	80.0	120	----
Total Metals (QCLot: 1546706)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Total Metals (QCLot: 1559642)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	107	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.5	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.9	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.6	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	98.7	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.4	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.2	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	100.0	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	104	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	97.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.9	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	103	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	98.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	102	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	101	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1559642) - continued									
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.1	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	96.6	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.9	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Total Metals (QCLot: 1559643)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Total Metals (QCLot: 1559644)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.0	80.0	120	----
Dissolved Metals (QCLot: 1558251)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.5	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.9	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	99.1	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	99.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	104	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	95.3	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.0	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.4	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.4	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	94.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	99.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.7	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	102	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	98.0	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.2	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	96.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1558251) - continued									
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.8	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.7	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	96.9	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	97.0	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	103	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.8	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	94.4	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	98.9	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	100	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	105	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.8	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	95.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.9	80.0	120	----
Dissolved Metals (QCLot: 1558253)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1541052)										
WP2417164-005	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1542254)										
WP2417164-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.248 mg/L	0.25 mg/L	99.1	70.0	130	----
Anions and Nutrients (QCLot: 1546471)										
WP2417166-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0972 mg/L	0.1 mg/L	97.2	75.0	125	----
Cyanides (QCLot: 1545344)										
WP2417157-002	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.216 mg/L	0.25 mg/L	86.6	75.0	125	----
Cyanides (QCLot: 1545345)										
WP2417161-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.542 mg/L	0.625 mg/L	86.6	75.0	125	----
Cyanides (QCLot: 1545346)										
WP2417161-001	Anonymous	Cyanide, free	----	E339-L	0.521 mg/L	0.625 mg/L	83.4	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1541119)										
WP2416300-004	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1546706)										
WP2417078-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000956 mg/L	0 mg/L	95.6	70.0	130	----
Dissolved Metals (QCLot: 1544970)										
WP2417121-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000996 mg/L	0 mg/L	99.6	70.0	130	----
Dissolved Metals (QCLot: 1558251)										
WP2417173-001	SW-04	Aluminum, dissolved	7429-90-5	E421	0.201 mg/L	0.2 mg/L	100	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00979 mg/L	0.01 mg/L	97.9	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.05 mg/L	2 mg/L	102	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1558251) - continued										
WP2417173-001	SW-04	Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.21 mg/L	4 mg/L	105	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.79 mg/L	10 mg/L	97.9	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00426 mg/L	0.004 mg/L	106	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.03 mg/L	2 mg/L	102	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.3 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0394 mg/L	0.04 mg/L	98.6	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00414 mg/L	0.004 mg/L	103	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.409 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-04	8-Jul-24	12:45	Water		X			6.34	23.2	66.8
	SW-TR	8-Jul-24	11:30	Water		X			3.33	22.2	36.6
	SW-GL-b	8-Jul-24	10:10	Water		X			6.4	13.7	68.9
	SW-GL	8-Jul-24	10:01	Water		X			7.6	21.7	64.5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	July 9 2024	Time: 9:00	Received by:	Date: JUL 11 2024	Time: 1035	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2417173

Telephone : +1 204 255 9720

Sample Intake

Client: Great Bear					**COC receipt info complete**	☑
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other
Total number of bottles/fractions:			36.			

Green/white	4x500, 4x125	Orange/black	
Purple/white	8x100	Dark blue/white	
Red/white	8x125	Black/white	
Dark green/white	4x60	Brown/white	
Grey/white		Pink/white	
Yellow/black	8x40	Beige/white	
Light blue/white		Other (specify)	

Comments:

Sample Login

Receipt Window	✓/X	N/A	**Bottles**	✓/X	N/A
# of fractions, matrix and submatrix	✓		All received bottles have IDs	✓	
Client, office, contact, quote, project	✓		Type, volume, and locations	✓	
Receipt time/date, PO, project, site	✓		Labels and internal COCs printed	✓	
Temp, cooling method, sampler	✓		**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		✓
Sample date/time	✓		Report types/formats		✓
Sample ID/description	✓		**Post-committing**	✓/X	N/A
Sales items		✓	Runs built and field data entered		✓
Guidelines/thresholds	✓	✓	Billing information entered		✓
Additional sample/WO information	✓		**Action Required?**	**Yes**	**No**
Due Dates	✓/X	N/A	Update default receipt data		✓
COC/GEL/client due dates match	✓	✓	Update default report data		✓
Express TAT surcharges	✓	✓	Add sales/billing items to quote		✓
Clock running for all samples	✓		SIF initiated (elaborate in comments)		✓

Comments:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2417255**	Page	: 1 of 11
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Jul-2024 09:57
PO	: PPR-022-3	Date Analysis Commenced	: 12-Jul-2024
C-O-C number	: ----	Issue Date	: 26-Jul-2024 13:29
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-11	SW-FIELD02	SW-DUP02	SW-GL02
					Client sampling date / time	10-Jul-2024 13:05	10-Jul-2024 11:50	10-Jul-2024 11:50	10-Jul-2024 11:50	10-Jul-2024 10:50
						WP2417255-001	WP2417255-002	WP2417255-003	WP2417255-004	WP2417255-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.01	6.23	----	6.23	6.26
Temperature, field	----	EF001/WP	0.10	°C		12.9	17.3	----	17.3	14.4
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.3	11.5	<2.0	8.6	5.6
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		138	60.4	<1.0	60.9	31.6
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		138	60.4	<1.0	60.9	31.6
Conductivity	----	E100/WP	1.0	µS/cm		262	136	Not Detected	138	74.1
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		128	75.7	<0.50	75.9	44.4
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		126	73.2	<0.50	72.2	42.2
pH	----	E108/WP	0.10	pH units		8.10	7.60	5.27	7.51	7.36
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		163	172	<3.0	173	108
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.2	4.6	<1.0	4.2	2.2
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.126	0.0615	<0.0050	0.0924	0.0554
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.88	2.66	Not Detected	2.64	0.18
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0798	<0.0050	<0.0050	<0.0050	0.106
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0897	<0.0051	<0.0051	<0.0051	0.109
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0099	<0.0010	<0.0010	<0.0010	0.0029
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0566	0.0870	<0.0020	0.0835	0.0526
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		2.24	<0.30	<0.30	<0.30	0.44
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0020	<0.0010	0.0014	0.0011
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0010	0.0021	<0.0010	0.0022	0.0017
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	0.0018	<0.0010	0.0019	0.0012

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-11	SW-FIELD02	SW-DUP02	SW-GL02
					Client sampling date / time	10-Jul-2024 13:05	10-Jul-2024 11:50	10-Jul-2024 11:50	10-Jul-2024 11:50	10-Jul-2024 10:50
						WP2417255-001	WP2417255-002	WP2417255-003	WP2417255-004	WP2417255-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		17.1	61.6	<0.50	63.0	44.2
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0942	0.480	<0.0030	0.476	0.319
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00018	Not Detected	0.00018	0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00466	0.00954	Not Detected	0.00942	0.00574
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0165	0.0218	Not Detected	0.0215	0.0105
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000048	Not Detected	0.000053	0.000032
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	Not Detected	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		Not Detected	0.0000167	Not Detected	0.0000155	Not Detected
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		35.9	18.9	Not Detected	18.6	12.2
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	0.000011
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00045	0.00170	<0.00010	0.00171	0.00112
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00170	Not Detected	0.00171	0.00112
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00037	0.00174	Not Detected	0.00177	0.00047
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00067	0.00165	Not Detected	0.00159	0.00122
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.430	1.82	Not Detected	1.80	2.38
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	0.000171	Not Detected	0.000180	0.000080
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0060	0.0032	<0.0010	0.0029	0.0017
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		8.81	6.31	Not Detected	6.25	2.84
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.213	0.406	Not Detected	0.401	0.0416
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000068	<0.0000050	0.0000061	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000712	0.000517	Not Detected	0.000491	0.000198
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00112	0.00376	Not Detected	0.00375	0.00139
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.048	0.060	<0.030	0.059	0.052
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.060	<0.050	0.059	0.052
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		2.65	1.55	Not Detected	1.52	0.518
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00156	0.00214	Not Detected	0.00219	0.00213
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000154	0.000235	Not Detected	0.000328	0.000100
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		6.66	5.93	<0.10	5.79	5.35
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	<0.000010	Not Detected	<0.000010	Not Detected

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-11	SW-FIELD02	SW-DUP02	SW-GL02
					Client sampling date / time	10-Jul-2024 13:05	10-Jul-2024 11:50	10-Jul-2024 11:50	10-Jul-2024 11:50	10-Jul-2024 10:50
						WP2417255-001	WP2417255-002	WP2417255-003	WP2417255-004	WP2417255-005
						Result	Result	Result	Result	Result
Total Metals										
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.96	5.15	Not Detected	5.09	1.44
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0551	0.0490	Not Detected	0.0487	0.0320
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.93	<0.50	Not Detected	0.52	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	<0.00020	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00035	Not Detected	0.00037	0.00022
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00475	0.0137	Not Detected	0.0141	0.00877
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	0.00036	Not Detected	0.00035	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.00137	0.000165	Not Detected	0.000177	0.000173
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00144	0.00252	<0.00050	0.00246	0.00199
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		Not Detected	<0.0030	Not Detected	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00044	0.00174	Not Detected	0.00174	0.00068
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0448	0.436	<0.0010	0.434	0.296
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	0.00018	Not Detected	0.00019	0.00011
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00461	0.00902	Not Detected	0.00893	0.00564
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0164	0.0217	Not Detected	0.0218	0.0106
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	0.000063	Not Detected	0.000063	0.000024
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	<0.000050	Not Detected	<0.000050	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	Not Detected	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	0.0000309	Not Detected	0.0000318	0.0000113
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		36.0	19.7	Not Detected	19.7	12.9
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	Not Detected	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00036	0.00168	<0.00010	0.00165	0.00115
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00168	Not Detected	0.00165	0.00115
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00033	0.00167	Not Detected	0.00168	0.00046
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00071	0.00167	Not Detected	0.00163	0.00132
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.344	1.57	Not Detected	1.60	2.24
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	0.000150	Not Detected	0.000142	0.000083
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0051	0.0028	Not Detected	0.0027	0.0016

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-11	SW-FIELD02	SW-DUP02	SW-GL02
					Client sampling date / time	10-Jul-2024 13:05	10-Jul-2024 11:50	10-Jul-2024 11:50	10-Jul-2024 11:50	10-Jul-2024 10:50
						WP2417255-001	WP2417255-002	WP2417255-003	WP2417255-004	WP2417255-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		9.16	6.44	<0.0050	6.49	2.97
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.200	0.378	Not Detected	0.378	0.0377
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	0.0000067	<0.0000050	0.0000064	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000768	0.000512	Not Detected	0.000501	0.000200
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00133	0.00395	Not Detected	0.00384	0.00160
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		0.042	0.045	<0.030	0.047	0.034
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	Not Detected	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		2.70	1.51	Not Detected	1.51	0.516
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00151	0.00211	Not Detected	0.00208	0.00213
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000244	0.000308	Not Detected	0.000128	0.000062
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.49	5.86	<0.050	5.72	5.29
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	<0.000010	Not Detected	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.91	5.08	<0.050	5.10	1.47
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0588	0.0506	Not Detected	0.0514	0.0338
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.19	<0.50	Not Detected	0.72	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	0.00035	Not Detected	0.00036	0.00022
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00203	0.0127	Not Detected	0.0125	0.00826
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	0.00037	Not Detected	0.00036	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.00134	0.000180	Not Detected	0.000172	0.000184
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00131	0.00209	Not Detected	0.00210	0.00173
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0022	0.0023	<0.0010	0.0023	0.0017
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00052	0.00184	Not Detected	0.00187	0.00073
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-08A	SW-TRAVELBLANK	----	----	----
				Client sampling date / time	09-Jul-2024 15:20	10-Jul-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2417255-006	WP2417255-007	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.60	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	22.8	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.2	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	30.0	<1.0	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	30.0	<1.0	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	70.1	Not Detected	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	36.0	<0.50	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	34.6	<0.50	----	----	----
pH	----	E108/WP	0.10	pH units	7.40	5.38	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	73.2	<3.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	6.3	<1.0	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0673	<0.0050	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.17	Not Detected	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0194	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0194	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0423	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.52	<0.30	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08A	SW-TRAVELBLANK	----	----	----
					Client sampling date / time	09-Jul-2024 15:20	10-Jul-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2417255-006	WP2417255-007	--------	--------	--------
						Result	Result	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		27.1	<0.50	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.136	<0.0030	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00255	Not Detected	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0113	Not Detected	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	Not Detected	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	Not Detected	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		Not Detected	Not Detected	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.16	Not Detected	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000010	Not Detected	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00051	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00051	Not Detected	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00014	Not Detected	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00083	Not Detected	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.533	Not Detected	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000080	Not Detected	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0017	<0.0010	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.85	Not Detected	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0434	Not Detected	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000156	Not Detected	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00053	Not Detected	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.802	Not Detected	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00180	Not Detected	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000125	Not Detected	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.30	<0.10	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08A	SW-TRAVELBLANK	----	----	----
					Client sampling date / time	09-Jul-2024 15:20	10-Jul-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2417255-006	WP2417255-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.37	Not Detected	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0219	Not Detected	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	Not Detected	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00518	<0.00030	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000192	Not Detected	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00092	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		Not Detected	Not Detected	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00037	Not Detected	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0784	<0.0010	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00246	Not Detected	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0109	Not Detected	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	Not Detected	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		Not Detected	Not Detected	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.51	Not Detected	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00044	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	Not Detected	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00010	<0.00010	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00090	0.00044	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.410	Not Detected	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000064	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0014	Not Detected	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08A	SW-TRAVELBLANK	----	----	----
					Client sampling date / time	09-Jul-2024 15:20	10-Jul-2024 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2417255-006	WP2417255-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.99	<0.0050	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0321	<0.00010	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000167	Not Detected	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00068	Not Detected	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	Not Detected	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.799	Not Detected	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00179	Not Detected	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000125	Not Detected	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.30	Not Detected	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.44	Not Detected	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0230	Not Detected	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00217	Not Detected	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000201	Not Detected	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00074	Not Detected	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	Not Detected	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00042	Not Detected	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2417255**	Page	: 1 of 29
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Jul-2024 09:57
PO	: PPR-022-3	Issue Date	: 26-Jul-2024 13:27
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP02	E298	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELD02	E298	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL02	E298	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TRAVELBLANK	E298	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	17-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08A	E298	09-Jul-2024	16-Jul-2024	28 days	7 days	✓	17-Jul-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.Cl-L	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.Cl-L	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-DUP02	E235.Cl-L	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-FIELD02	E235.Cl-L	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-GL02	E235.Cl-L	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-TRAVELBLANK	E235.Cl-L	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08A	E235.Cl-L	09-Jul-2024	12-Jul-2024	28 days	3 days	✓	12-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-03	E235.NO3-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP] SW-11	E235.NO3-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP02	E235.NO3-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-FIELD02	E235.NO3-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL02	E235.NO3-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TRAVELBLANK	E235.NO3-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.NO3-L	09-Jul-2024	12-Jul-2024	7 days	3 days	✓	12-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-03	E235.NO2-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-11	E235.NO2-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP02	E235.NO2-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-FIELD02	E235.NO2-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-GL02	E235.NO2-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-TRAVELBLANK	E235.NO2-L	10-Jul-2024	12-Jul-2024	7 days	2 days	✓	12-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08A	E235.NO2-L	09-Jul-2024	12-Jul-2024	7 days	3 days	✓	12-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-03	E235.SO4	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-11	E235.SO4	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-DUP02	E235.SO4	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-FIELD02	E235.SO4	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-GL02	E235.SO4	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-TRAVELBLANK	E235.SO4	10-Jul-2024	12-Jul-2024	28 days	2 days	✓	12-Jul-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08A	E235.SO4	09-Jul-2024	12-Jul-2024	28 days	3 days	✓	12-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-03	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-11	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-DUP02	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-FIELD02	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL02	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TRAVELBLANK	E372-U	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08A	E372-U	09-Jul-2024	15-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E339-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E339-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD02	E339-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVELBLANK	E339-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E339-L	09-Jul-2024	17-Jul-2024	14 days	8 days	✓	17-Jul-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E333-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD02	E333-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVELBLANK	E333-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	09-Jul-2024	17-Jul-2024	14 days	8 days	✓	17-Jul-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E336-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD02	E336-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E336-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVELBLANK	E336-L	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	09-Jul-2024	17-Jul-2024	14 days	8 days	✓	17-Jul-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP02	E421.Cr-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-FIELD02	E421.Cr-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.Cr-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TRAVELBLANK	E421.Cr-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.Cr-L	09-Jul-2024	23-Jul-2024	180 days	14 days	✓	23-Jul-2024	180 days	14 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	15-Jul-2024	28 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP02	E509	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-FIELD02	E509	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL02	E509	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TRAVELBLANK	E509	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08A	E509	09-Jul-2024	16-Jul-2024	28 days	7 days	✓	16-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-11	E421	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP02	E421	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-FIELD02	E421	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL02	E421	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TRAVELBLANK	E421	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08A	E421	09-Jul-2024	23-Jul-2024	180 days	14 days	✓	23-Jul-2024	180 days	14 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP02	E421.P-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-FIELD02	E421.P-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.P-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TRAVELBLANK	E421.P-L	10-Jul-2024	23-Jul-2024	180 days	13 days	✓	23-Jul-2024	180 days	13 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.P-L	09-Jul-2024	23-Jul-2024	180 days	14 days	✓	23-Jul-2024	180 days	14 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-03	EF001	10-Jul-2024	----	----	----		12-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-11	EF001	10-Jul-2024	----	----	----		12-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-DUP02	EF001	10-Jul-2024	----	----	----		12-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-GL02	EF001	10-Jul-2024	----	----	----		12-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08A	EF001	09-Jul-2024	----	----	----		12-Jul-2024	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-03	E358-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	13-Jul-2024	28 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-11	E358-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	13-Jul-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP02	E358-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	13-Jul-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-FIELD02	E358-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	13-Jul-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL02	E358-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	13-Jul-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TRAVELBLANK	E358-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	13-Jul-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	09-Jul-2024	13-Jul-2024	28 days	4 days	✓	13-Jul-2024	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-03	E283	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	19-Jul-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-11	E283	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	19-Jul-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-DUP02	E283	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	19-Jul-2024	14 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-FIELD02	E283	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	19-Jul-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-GL02	E283	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	19-Jul-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-TRAVELBLANK	E283	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	19-Jul-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-08A	E283	09-Jul-2024	17-Jul-2024	14 days	8 days	✓	19-Jul-2024	14 days	10 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-03	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-11	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-DUP02	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-FIELD02	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-GL02	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-TRAVELBLANK	E290	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08A	E290	09-Jul-2024	16-Jul-2024	14 days	7 days	✓	16-Jul-2024	14 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-03	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-11	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP02	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-FIELD02	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-GL02	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-TRAVELBLANK	E100	10-Jul-2024	16-Jul-2024	28 days	6 days	✓	16-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08A	E100	09-Jul-2024	16-Jul-2024	28 days	7 days	✓	16-Jul-2024	28 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-03	E108	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-11	E108	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP02	E108	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-FIELD02	E108	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-GL02	E108	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-TRAVELBLANK	E108	10-Jul-2024	16-Jul-2024	14 days	6 days	✓	16-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08A	E108	09-Jul-2024	16-Jul-2024	14 days	7 days	✓	16-Jul-2024	14 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-03	E162-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-11	E162-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓

Matrix: **Water**

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP02	E162-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-FIELD02	E162-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-GL02	E162-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-TRAVELBLANK	E162-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08A	E162-L	09-Jul-2024	----	----	----		15-Jul-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-11	E160-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP02	E160-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-FIELD02	E160-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL02	E160-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TRAVELBLANK	E160-L	10-Jul-2024	----	----	----		15-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	09-Jul-2024	----	----	----		15-Jul-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP02	E420.Cr-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD02	E420.Cr-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVELBLANK	E420.Cr-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	09-Jul-2024	25-Jul-2024	180 days	16 days	✓	25-Jul-2024	180 days	16 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	09-Jul-2024	19-Jul-2024	28 days	10 days	✓	19-Jul-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	10-Jul-2024	19-Jul-2024	28 days	9 days	✓	19-Jul-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	10-Jul-2024	19-Jul-2024	28 days	9 days	✓	19-Jul-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP02	E508	10-Jul-2024	19-Jul-2024	28 days	9 days	✓	19-Jul-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELD02	E508	10-Jul-2024	19-Jul-2024	28 days	9 days	✓	19-Jul-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL02	E508	10-Jul-2024	19-Jul-2024	28 days	9 days	✓	19-Jul-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TRAVELBLANK	E508	10-Jul-2024	19-Jul-2024	28 days	9 days	✓	19-Jul-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP02	E420	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD02	E420	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVELBLANK	E420	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	09-Jul-2024	25-Jul-2024	180 days	16 days	✓	25-Jul-2024	180 days	16 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP02	E420.P-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELD02	E420.P-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL02	E420.P-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TRAVELBLANK	E420.P-L	10-Jul-2024	25-Jul-2024	180 days	15 days	✓	25-Jul-2024	180 days	15 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	09-Jul-2024	25-Jul-2024	180 days	16 days	✓	25-Jul-2024	180 days	16 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1549542	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1550985	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1547591	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1542439	1	20	5.0	5.0	✓
Conductivity in Water	E100	1550984	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1560362	0	11	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1544970	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1560361	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1543031	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1560363	0	11	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1549582	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1542440	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1542441	1	20	5.0	5.0	✓
pH by Meter	E108	1550983	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1542438	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1544641	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1563717	0	11	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1549583	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1554447	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563716	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545595	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1563718	0	12	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1544655	2	37	5.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1549581	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1549542	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1550985	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1547591	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1542439	1	20	5.0	5.0	✓
Conductivity in Water	E100	1550984	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1560362	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1544970	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1560361	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1543031	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1560363	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1549582	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1542440	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1542441	1	20	5.0	5.0	✓
pH by Meter	E108	1550983	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1542438	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1544641	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1563717	1	11	9.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1549583	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1554447	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563716	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545595	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1563718	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1544655	2	37	5.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1549581	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1549542	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1550985	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1547591	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1542439	1	20	5.0	5.0	✓
Conductivity in Water	E100	1550984	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1560362	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1544970	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1560361	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1543031	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1560363	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1549582	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1542440	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1542441	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1542438	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1544641	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1563717	1	11	9.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1549583	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1554447	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563716	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545595	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1563718	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1544655	2	37	5.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1549581	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1547591	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1542439	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1560362	0	11	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1544970	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1560361	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1543031	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1560363	0	11	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1549582	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1542440	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1542441	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1542438	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1563717	0	11	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1549583	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1554447	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563716	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545595	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1563718	0	12	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1549581	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order	: **WP2417255**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Jul-2024 09:57
PO	: PPR-022-3	Date Analysis Commenced	: 12-Jul-2024
C-O-C number	: ----	Issue Date	: 26-Jul-2024 13:30
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1544641)											
WP2417237-007	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	301	310	3.11%	20%	----
Physical Tests (QC Lot: 1544655)											
WP2417237-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	17.4	18.4	5.58%	20%	----
Physical Tests (QC Lot: 1544656)											
WP2417255-007	SW-TRAVELBLANK	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1549542)											
WP2417251-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.0	2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1550983)											
WP2417255-001	SW-03	pH	----	E108	0.10	pH units	8.10	8.18	0.983%	4%	----
Physical Tests (QC Lot: 1550984)											
WP2417255-001	SW-03	Conductivity	----	E100	1.0	µS/cm	262	246	6.30%	10%	----
Physical Tests (QC Lot: 1550985)											
WP2417255-001	SW-03	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	138	135	1.54%	20%	----
Anions and Nutrients (QC Lot: 1542438)											
WP2417251-007	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	7.03	7.01	0.348%	20%	----
Anions and Nutrients (QC Lot: 1542439)											
WP2417251-007	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	17.0	16.9	0.281%	20%	----
Anions and Nutrients (QC Lot: 1542440)											
WP2417251-007	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1542441)											
WP2417251-007	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1545595)											
WP2417255-001	SW-03	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0566	0.0542	4.19%	20%	----
Anions and Nutrients (QC Lot: 1547591)											
WP2417255-001	SW-03	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.126	0.126	0.317%	20%	----
Cyanides (QC Lot: 1549581)											
WP2417255-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1549582)											
WP2417255-001	SW-03	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1549583)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1549583) - continued											
WP2417255-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0010	<0.0010	0.00002	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1543031)											
WP2416300-005	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	9.72	9.64	0.821%	20%	----
Total Metals (QC Lot: 1554447)											
WP2417255-001	SW-03	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1563716)											
WP2417206-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0103	0.0113	0.0010	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00054	0.00055	0.000007	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0108	0.0107	0.294%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.82	9.71	1.17%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000016	0.000018	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00082	0.00083	0.000009	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.053	0.053	0.0003	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.63	1.61	1.41%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00554	0.00561	1.24%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000128	0.000116	0.000011	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.23	1.22	0.619%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00161	0.00176	0.00015	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	0.27	0.28	0.008	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	7.17	7.25	1.15%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0475	0.0473	0.314%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1563716) - continued											
WP2417206-003	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	1.76	1.69	0.07	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00056	0.00054	0.00002	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000036	0.000036	0.0000002	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1544970)											
WP2417121-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1546715)											
WP2417255-002	SW-11	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000067	0.0000066	0.00000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1560361)											
WP2417218-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0076	0.0073	0.0003	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00022	0.00023	0.000007	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00533	0.00528	1.01%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0408	0.0410	0.566%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.065	0.064	0.0008	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	36.0	36.0	0.0416%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00051	0.00050	0.00001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00083	0.00087	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.184	0.184	0.0885%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0313	0.0299	4.44%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	21.5	21.7	0.747%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.179	0.176	1.27%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1560361) - continued											
WP2417218-004	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000646	0.000610	5.77%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00330	0.00321	0.00009	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.277	0.265	0.012	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	10.9	10.6	2.56%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00107	0.00104	0.00003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000220	0.000295	0.000076	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	7.99	7.95	0.479%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	14.5	13.9	4.32%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.154	0.152	1.36%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	4.16	4.05	0.11	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00057	0.00057	0.000001	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00099	0.00086	0.00014	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000361	0.000355	1.50%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00186	0.00187	0.000010	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0048	0.0047	0.00005	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00042	0.00043	0.00002	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1544641)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1544655)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1544656)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1549542)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1550984)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1550985)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1542438)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1542439)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1542440)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1542441)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1545595)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1547591)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1549581)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1549582)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1549583)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1543031)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1554447)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1554447) - continued						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1563716)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1563716) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1563717)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1563718)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1544970)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1546715)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1560361)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1560361) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1560362)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1560363)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1544641)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.0	85.0	115	----
Physical Tests (QCLot: 1544655)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	91.2	85.0	115	----
Physical Tests (QCLot: 1544656)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	98.5	85.0	115	----
Physical Tests (QCLot: 1549542)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1550983)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1550984)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	104	90.0	110	----
Physical Tests (QCLot: 1550985)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.8	85.0	115	----
Anions and Nutrients (QCLot: 1542438)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1542439)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1542440)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1542441)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1545595)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.7	80.0	120	----
Anions and Nutrients (QCLot: 1547591)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	87.7	85.0	115	----
Cyanides (QCLot: 1549581)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	90.5	80.0	120	----
Cyanides (QCLot: 1549582)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	90.9	80.0	120	----
Cyanides (QCLot: 1549583)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1549583) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	82.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1543031)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100	80.0	120	----
Total Metals (QCLot: 1554447)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	99.0	80.0	120	----
Total Metals (QCLot: 1563716)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.7	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	94.4	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.0	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	90.8	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.2	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.3	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.5	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.2	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	88.3	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	86.7	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.3	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	95.0	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	95.8	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.8	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	90.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1563716) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	97.7	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	90.9	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.5	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.7	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	94.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	86.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.5	80.0	120	----
Total Metals (QCLot: 1563717)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.3	80.0	120	----
Total Metals (QCLot: 1563718)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.0	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 1560361)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.0	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	97.9	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.9	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	97.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1560361) - continued									
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.2	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	99.9	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.1	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	97.3	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	90.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.1	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	97.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.2	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.8	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.7	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.0	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	92.6	80.0	120	----
Dissolved Metals (QCLot: 1560362)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	99.9	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1542438)										
WP2417251-007	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1542439)										
WP2417251-007	Anonymous	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1542440)										
WP2417251-007	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1542441)										
WP2417251-007	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.507 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1545595)										
WP2417255-002	SW-11	Phosphorus, total	7723-14-0	E372-U	0.204 mg/L	0.25 mg/L	81.7	70.0	130	----
Anions and Nutrients (QCLot: 1547591)										
WP2417255-001	SW-03	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Cyanides (QCLot: 1549581)										
WP2417255-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.112 mg/L	0.125 mg/L	89.9	75.0	125	----
Cyanides (QCLot: 1549582)										
WP2417255-001	SW-03	Cyanide, free	----	E339-L	0.113 mg/L	0.125 mg/L	90.1	75.0	125	----
Cyanides (QCLot: 1549583)										
WP2417255-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.196 mg/L	0.25 mg/L	78.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1543031)										
WP2416300-006	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1554447)										
WP2417255-002	SW-11	Mercury, total	7439-97-6	E508	0.0000939 mg/L	0 mg/L	93.9	70.0	130	----
Total Metals (QCLot: 1563716)										
WP2417206-003	Anonymous	Aluminum, total	7429-90-5	E420	0.203 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Barium, total	7440-39-3	E420	0.0193 mg/L	0.02 mg/L	96.3	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0395 mg/L	0.04 mg/L	98.7	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00992 mg/L	0.01 mg/L	99.2	70.0	130	----
		Boron, total	7440-42-8	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00969 mg/L	0.01 mg/L	96.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0394 mg/L	0.04 mg/L	98.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1563716) - continued										
WP2417206-003	Anonymous	Cobalt, total	7440-48-4	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Copper, total	7440-50-8	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Iron, total	7439-89-6	E420	1.93 mg/L	2 mg/L	96.4	70.0	130	----
		Lead, total	7439-92-1	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0994 mg/L	0.1 mg/L	99.4	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0392 mg/L	0.04 mg/L	97.9	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.99 mg/L	10 mg/L	99.9	70.0	130	----
		Potassium, total	7440-09-7	E420	4.00 mg/L	4 mg/L	100	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
		Silicon, total	7440-21-3	E420	9.94 mg/L	10 mg/L	99.4	70.0	130	----
		Silver, total	7440-22-4	E420	0.00384 mg/L	0.004 mg/L	95.9	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.0 mg/L	20 mg/L	99.8	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0370 mg/L	0.04 mg/L	92.5	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00373 mg/L	0.004 mg/L	93.2	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, total	7440-31-5	E420	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0988 mg/L	0.1 mg/L	98.8	70.0	130	----
		Zinc, total	7440-66-6	E420	0.377 mg/L	0.4 mg/L	94.4	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
Dissolved Metals (QCLot: 1544970)										
WP2417121-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000996 mg/L	0 mg/L	99.6	70.0	130	----
Dissolved Metals (QCLot: 1546715)										
WP2417255-003	SW-FIELD02	Mercury, dissolved	7439-97-6	E509	0.000106 mg/L	0 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1560361)										
WP2417218-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.203 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00945 mg/L	0.01 mg/L	94.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00406 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1560361) - continued										
WP2417218-004	Anonymous	Chromium, dissolved	7440-47-3	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.99 mg/L	2 mg/L	99.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.60 mg/L	10 mg/L	86.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00371 mg/L	0.004 mg/L	92.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.8 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00386 mg/L	0.004 mg/L	96.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00397 mg/L	0.004 mg/L	99.4	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.400 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0411 mg/L	0.04 mg/L	103	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients			
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX			
Job #:	PPR-022-3	Email 1 invoice@kinross.com			
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM		

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-03	July 10 2024	13:05	Water	9	X			7.01	12.9	201.1
	SW-11	July 10 2024	11:50	Water	9	X			6.23	17.3	130.2
	SW-FIELD02	July 10 2024	11:50	Water	9	X					
	SW-DUP02	July 10 2024	11:50	Water	9	X			6.23	17.3	130.2
	SW-GL02	July 10 2024	10:50	Water	9	X			6.26	14.4	61
	SW-08a	July 9 2024	15:20	Water	9	X			6.6	22.8	68.9
	SW-TRAVELBLANK	July 10 2024		Water	9	X					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHI
Released by: EM	July 11 2024	Time: 9:00	Received by:	Date: JUL 12 2024	Time: 09:57	Received

Environmental Division
Winnipeg
Work Order Reference
WP2417255

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross - Great Bear Resources					**COC receipt info complete**	☑
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white	2x125, 4x250, 7x500	Orange/black	
Purple/white	14x100	Dark blue/white	
Red/white	14x125	Black/white	
Dark green/white	6x60, 14x45	Brown/white	
Grey/white		Pink/white	
Yellow/black	14x 40	Beige/white	
Light blue/white		Other (specify)	

Comments:

21.6°C, ice packs ✓, cooling initiated

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix	✓		All received bottles have IDs	✓	
Client, office, contact, quote, project	✓		Type, volume, and locations	✓	
Receipt time/date, PO, project, site	✓		Labels and internal COCs printed	✓	
Temp, cooling method, sampler	✓		**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		✓
Sample date/time	✓		Report types/formats		✓
Sample ID/description	✓		**Post-committing**	✓/X	N/A
Sales items	✓	✓	Runs built and field data entered		✓
Guidelines/thresholds		✓	Billing information entered		✓
Additional sample/WO information	✓		**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		X
COC/GEL/client due dates match	✓	✓	Update default report data		X
Express TAT surcharges	✓	✓	Add sales/billing items to quote		X
Clock running for all samples	✓		SIF initiated (elaborate in comments)		X

Comments:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2417256**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Jul-2024 09:35
PO	: PPR-022-3	Date Analysis Commenced	: 12-Jul-2024
C-O-C number	: ----	Issue Date	: 29-Jul-2024 13:27
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Julie Young	Login	Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-DUP-01	BLANK-01	SW-08	----
					Client sampling date / time	08-Jul-2024 14:50	08-Jul-2024 14:55	08-Jul-2024 15:00	08-Jul-2024 13:35	----
						WP2417256-001	WP2417256-002	WP2417256-003	WP2417256-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		5.58	5.58	5.58	6.62	----
Temperature, field	----	EF001/WP	0.10	°C		27.0	27.0	27.0	22.7	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		9.6	8.8	2.1	4.1	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		11.8	11.4	<1.0	30.7	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		11.8	11.4	<1.0	30.7	----
Conductivity	----	E100/WP	1.0	µS/cm		43.5	42.5	Not Detected	70.3	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		28.6	28.4	<0.50	36.6	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		27.3	27.2	<0.50	35.0	----
pH	----	E108/WP	0.10	pH units		6.65	6.60	5.41	7.40	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		86.4	81.8	<3.0	68.2	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.1	1.2	<1.0	8.2	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0249	0.0479	<0.0050	0.0494	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<0.10	<0.10	Not Detected	0.17	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	0.0188	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	0.0188	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0174	0.0157	<0.0020	0.0399	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	<0.30	<0.30	0.56	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0015	0.0013	<0.0010	0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0018	0.0022	<0.0010	0.0012	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0016	0.0017	<0.0010	0.0011	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-DUP-01	BLANK-01	SW-08	----
					Client sampling date / time	08-Jul-2024 14:50	08-Jul-2024 14:55	08-Jul-2024 15:00	08-Jul-2024 13:35	----
						WP2417256-001	WP2417256-002	WP2417256-003	WP2417256-004	--------
						Result	Result	Result	Result	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		53.3	58.0	0.81	27.5	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.448	0.451	<0.0030	0.168	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00013	0.00013	Not Detected	<0.00010	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00534	0.00515	Not Detected	0.00259	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00837	0.00854	Not Detected	0.0107	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000028	0.000028	Not Detected	<0.000020	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	Not Detected	<0.000050	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	Not Detected	<0.010	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		7.77	7.75	<0.050	9.08	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	0.000014	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00088	0.00088	<0.00010	0.00060	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00088	0.00088	Not Detected	0.00060	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	0.00023	Not Detected	0.00016	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00061	0.00062	Not Detected	0.00090	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.635	0.773	Not Detected	0.578	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000108	0.000254	Not Detected	0.000102	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0011	0.0011	Not Detected	0.0014	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		1.93	1.91	Not Detected	3.00	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00194	0.0166	Not Detected	0.0421	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000054	0.0000057	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000064	0.000058	Not Detected	0.000161	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00090	0.00086	Not Detected	0.00058	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	0.034	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		<0.050	<0.050	Not Detected	0.824	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		<0.00020	<0.00020	Not Detected	0.00189	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000173	0.000120	Not Detected	0.000098	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		3.04	2.94	<0.10	1.46	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	SW-DUP-01	BLANK-01	SW-08	----
					Client sampling date / time	08-Jul-2024 14:50	08-Jul-2024 14:55	08-Jul-2024 15:00	08-Jul-2024 13:35	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2417256-001	WP2417256-002	WP2417256-003	WP2417256-004	--------
						Result	Result	Result	Result	----
Total Metals										
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.12	1.14	Not Detected	1.44	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0208	0.0201	Not Detected	0.0225	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	Not Detected	<0.50	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00017	0.00017	Not Detected	<0.00010	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00474	0.00490	<0.00030	0.00668	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000104	0.000100	Not Detected	0.000192	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00070	0.00074	Not Detected	0.00100	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	Not Detected	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00056	0.00051	Not Detected	0.00042	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.450	0.454	<0.0010	0.0795	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00015	0.00014	Not Detected	<0.00010	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00530	0.00527	Not Detected	0.00252	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00892	0.00900	Not Detected	0.0104	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000025	0.000023	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	Not Detected	<0.010	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000063	0.0000071	Not Detected	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		8.19	8.11	Not Detected	9.64	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00092	0.00093	<0.00010	0.00041	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00092	0.00093	Not Detected	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00022 RRV	0.00023	Not Detected	0.00013	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00071	0.00076	Not Detected	0.00089	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.773	0.788	Not Detected	0.444	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000180	0.000184	Not Detected	0.000078	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0010	<0.0010	Not Detected	0.0014	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-01	SW-DUP-01	BLANK-01	SW-08	----
					Client sampling date / time	08-Jul-2024 14:50	08-Jul-2024 14:55	08-Jul-2024 15:00	08-Jul-2024 13:35	----
						WP2417256-001	WP2417256-002	WP2417256-003	WP2417256-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		1.99	1.98	<0.0050	3.04	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0163 RRV	0.0163	Not Detected	0.0718 RRV	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		0.0000059	0.0000065	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000068	0.000064	Not Detected	0.000198	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00115	0.00115	Not Detected	0.00071	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	Not Detected	<0.050	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		<0.050	<0.050	Not Detected	0.817	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		<0.00020	<0.00020	Not Detected	0.00173	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000216	0.000181	Not Detected	0.000092	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		3.12	3.03	<0.050	1.35	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.16	1.14	Not Detected	1.47	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0212	0.0209	Not Detected	0.0233	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00018	0.00018	Not Detected	<0.00010	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	<0.00010	<0.00010	<0.00010	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00463	0.00492	Not Detected	0.00219	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000105	0.000105	Not Detected	0.000198	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00074	0.00076	Not Detected	0.00078	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0022	0.0024	Not Detected	<0.0010	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00059	0.00060	Not Detected	0.00045	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2417256**	Page	: 1 of 21
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Jul-2024 09:35
PO	: PPR-022-3	Issue Date	: 29-Jul-2024 13:24
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK-01	E298	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	17-Jul-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	17-Jul-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	17-Jul-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP-01	E298	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	17-Jul-2024	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] BLANK-01	E235.Cl-L	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-01	E235.Cl-L	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] SW-08	E235.Cl-L	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP-01	E235.Cl-L	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-01	E235.NO3-L	08-Jul-2024	12-Jul-2024	7 days	4 days	✓	12-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO3-L	08-Jul-2024	12-Jul-2024	7 days	4 days	✓	12-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO3-L	08-Jul-2024	12-Jul-2024	7 days	4 days	✓	12-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP-01	E235.NO3-L	08-Jul-2024	12-Jul-2024	7 days	4 days	✓	12-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
BLANK-01	E235.NO2-L	08-Jul-2024	12-Jul-2024	7 days	4 days	✓	12-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-01	E235.NO2-L	08-Jul-2024	12-Jul-2024	7 days	4 days	✓	12-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-08	E235.NO2-L	08-Jul-2024	12-Jul-2024	7 days	4 days	✓	12-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE [ON MECP]										
SW-DUP-01	E235.NO2-L	08-Jul-2024	12-Jul-2024	7 days	4 days	✓	12-Jul-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BLANK-01	E235.SO4	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-01	E235.SO4	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-08	E235.SO4	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
SW-DUP-01	E235.SO4	08-Jul-2024	12-Jul-2024	28 days	4 days	✓	12-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
BLANK-01	E372-U	08-Jul-2024	15-Jul-2024	28 days	7 days	✓	16-Jul-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-01	E372-U	08-Jul-2024	15-Jul-2024	28 days	7 days	✓	16-Jul-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08	E372-U	08-Jul-2024	15-Jul-2024	28 days	7 days	✓	16-Jul-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-DUP-01	E372-U	08-Jul-2024	15-Jul-2024	28 days	7 days	✓	16-Jul-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E339-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E339-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP-01	E339-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E333-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP-01	E333-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E336-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP-01	E336-L	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	17-Jul-2024	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-01	E421.Cr-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP-01	E421.Cr-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK-01	E509	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-01	E509	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08	E509	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP-01	E509	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK-01	E421	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP-01	E421	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK-01	E421.P-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP-01	E421.P-L	08-Jul-2024	23-Jul-2024	180 days	15 days	✓	23-Jul-2024	180 days	15 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
BLANK-01	EF001	08-Jul-2024	----	----	----		12-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	08-Jul-2024	----	----	----		12-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-08	EF001	08-Jul-2024	----	----	----		12-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-DUP-01	EF001	08-Jul-2024	----	----	----		12-Jul-2024	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
BLANK-01	E358-L	08-Jul-2024	13-Jul-2024	28 days	5 days	✓	13-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	08-Jul-2024	13-Jul-2024	28 days	5 days	✓	13-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08	E358-L	08-Jul-2024	13-Jul-2024	28 days	5 days	✓	13-Jul-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-DUP-01	E358-L	08-Jul-2024	13-Jul-2024	28 days	5 days	✓	13-Jul-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
BLANK-01	E283	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	19-Jul-2024	14 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-01	E283	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	19-Jul-2024	14 days	11 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-08	E283	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	19-Jul-2024	14 days	11 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] SW-DUP-01	E283	08-Jul-2024	17-Jul-2024	14 days	9 days	✓	19-Jul-2024	14 days	11 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BLANK-01	E290	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-01	E290	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-08	E290	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] SW-DUP-01	E290	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BLANK-01	E100	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-01	E100	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-08	E100	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] SW-DUP-01	E100	08-Jul-2024	16-Jul-2024	28 days	8 days	✓	16-Jul-2024	28 days	8 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BLANK-01	E108	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-01	E108	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-08	E108	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] SW-DUP-01	E108	08-Jul-2024	16-Jul-2024	14 days	8 days	✓	16-Jul-2024	14 days	8 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] BLANK-01	E162-L	08-Jul-2024	----	----	----		15-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-01	E162-L	08-Jul-2024	----	----	----		15-Jul-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-08	E162-L	08-Jul-2024	----	----	----		15-Jul-2024	7 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE [ON MECP] SW-DUP-01	E162-L	08-Jul-2024	----	----	----		15-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK-01	E160-L	08-Jul-2024	----	----	----		15-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	08-Jul-2024	----	----	----		15-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	08-Jul-2024	----	----	----		15-Jul-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-DUP-01	E160-L	08-Jul-2024	----	----	----		15-Jul-2024	7 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-01	E420.Cr-L	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP-01	E420.Cr-L	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
BLANK-01	E508	08-Jul-2024	19-Jul-2024	28 days	11 days	✓	19-Jul-2024	28 days	11 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-01	E508	08-Jul-2024	19-Jul-2024	28 days	11 days	✓	19-Jul-2024	28 days	11 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-08	E508	08-Jul-2024	19-Jul-2024	28 days	11 days	✓	19-Jul-2024	28 days	11 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-DUP-01	E508	08-Jul-2024	19-Jul-2024	28 days	11 days	✓	19-Jul-2024	28 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BLANK-01	E420	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-01	E420	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-08	E420	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-DUP-01	E420	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
BLANK-01	E420.P-L	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP-01	E420.P-L	08-Jul-2024	25-Jul-2024	180 days	17 days	✓	25-Jul-2024	180 days	17 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1549542	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1550985	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1547591	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1542439	1	20	5.0	5.0	✓
Conductivity in Water	E100	1550984	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1560362	0	11	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1546715	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1560361	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1543031	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1560363	0	11	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1549582	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1542440	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1542441	1	20	5.0	5.0	✓
pH by Meter	E108	1550983	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1542438	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1544641	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1563717	0	11	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1549583	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1554447	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563716	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545595	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1563718	0	12	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1544656	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	1549581	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1549542	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1550985	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1547591	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1542439	1	20	5.0	5.0	✓
Conductivity in Water	E100	1550984	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1560362	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1546715	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1560361	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1543031	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1560363	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1549582	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1542440	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1542441	1	20	5.0	5.0	✓
pH by Meter	E108	1550983	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1542438	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1544641	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1563717	1	11	9.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1549583	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1554447	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563716	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545595	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1563718	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1544656	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	1549581	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1549542	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1550985	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1547591	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1542439	1	20	5.0	5.0	✓
Conductivity in Water	E100	1550984	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1560362	1	11	9.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1546715	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1560361	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1543031	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1560363	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1549582	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1542440	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1542441	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1542438	1	20	5.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1544641	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1563717	1	11	9.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1549583	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1554447	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563716	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545595	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1563718	1	12	8.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1544656	1	17	5.8	5.0	✓
WAD Cyanide (Low Level)	E336-L	1549581	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1547591	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1542439	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1560362	0	11	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1546715	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1560361	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1543031	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1560363	0	11	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1549582	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1542440	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1542441	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1542438	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1563717	0	11	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1549583	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1554447	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563716	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1545595	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1563718	0	12	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1549581	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2417256**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 12-Jul-2024 09:35
PO	: PPR-022-3	Date Analysis Commenced	: 12-Jul-2024
C-O-C number	: ----	Issue Date	: 29-Jul-2024 13:29
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Julie Young	Login	Winnipeg Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1544641)											
WP2417237-007	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	301	310	3.11%	20%	----
Physical Tests (QC Lot: 1544656)											
WP2417255-007	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1549542)											
WP2417251-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.0	2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1550983)											
WP2417255-001	Anonymous	pH	----	E108	0.10	pH units	8.10	8.18	0.983%	4%	----
Physical Tests (QC Lot: 1550984)											
WP2417255-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	262	246	6.30%	10%	----
Physical Tests (QC Lot: 1550985)											
WP2417255-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	138	135	1.54%	20%	----
Anions and Nutrients (QC Lot: 1542438)											
WP2417251-007	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	7.03	7.01	0.348%	20%	----
Anions and Nutrients (QC Lot: 1542439)											
WP2417251-007	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	17.0	16.9	0.281%	20%	----
Anions and Nutrients (QC Lot: 1542440)											
WP2417251-007	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1542441)											
WP2417251-007	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1545595)											
WP2417255-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0566	0.0542	4.19%	20%	----
Anions and Nutrients (QC Lot: 1547591)											
WP2417255-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.126	0.126	0.317%	20%	----
Cyanides (QC Lot: 1549581)											
WP2417255-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1549582)											
WP2417255-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1549583)											
WP2417255-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0010	<0.0010	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1543031)											
WP2416300-005	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	9.72	9.64	0.821%	20%	----
Total Metals (QC Lot: 1554447)											
WP2417255-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1563716)											
WP2417206-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0103	0.0113	0.0010	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00054	0.00055	0.000007	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0108	0.0107	0.294%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	9.82	9.71	1.17%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000016	0.000018	0.000002	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00082	0.00083	0.000009	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.053	0.053	0.0003	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.63	1.61	1.41%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00554	0.00561	1.24%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000128	0.000116	0.000011	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.23	1.22	0.619%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00161	0.00176	0.00015	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	0.27	0.28	0.008	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	7.17	7.25	1.15%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0475	0.0473	0.314%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1.76	1.69	0.07	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1563716) - continued											
WP2417206-003	Anonymous	Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00056	0.00054	0.00002	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000036	0.000036	0.0000002	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1546715)											
WP2417255-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000067	0.0000066	0.00000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1560361)											
WP2417218-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0076	0.0073	0.0003	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00022	0.00023	0.000007	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00533	0.00528	1.01%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0408	0.0410	0.566%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.065	0.064	0.0008	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	36.0	36.0	0.0416%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00051	0.00050	0.00001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00083	0.00087	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.184	0.184	0.0885%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0313	0.0299	4.44%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	21.5	21.7	0.747%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.179	0.176	1.27%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000646	0.000610	5.77%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00330	0.00321	0.00009	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.277	0.265	0.012	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	10.9	10.6	2.56%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1560361) - continued											
WP2417218-004	Anonymous	Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00107	0.00104	0.00003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000220	0.000295	0.000076	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	7.99	7.95	0.479%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	14.5	13.9	4.32%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.154	0.152	1.36%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	4.16	4.05	0.11	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00057	0.00057	0.000001	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00099	0.00086	0.00014	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000361	0.000355	1.50%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00186	0.00187	0.000010	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0048	0.0047	0.00005	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00042	0.00043	0.00002	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1544641)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1544656)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1549542)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1550984)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1550985)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1542438)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1542439)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1542440)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1542441)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1545595)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1547591)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1549581)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1549582)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1549583)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1543031)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1554447)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1563716)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1563716) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1563716) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1563717)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1563718)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1546715)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1560361)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1560361) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1560362)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1560363)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1544641)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.0	85.0	115	----
Physical Tests (QCLot: 1544656)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	98.5	85.0	115	----
Physical Tests (QCLot: 1549542)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1550983)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1550984)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	104	90.0	110	----
Physical Tests (QCLot: 1550985)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.8	85.0	115	----
Anions and Nutrients (QCLot: 1542438)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1542439)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1542440)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1542441)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1545595)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.7	80.0	120	----
Anions and Nutrients (QCLot: 1547591)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	87.7	85.0	115	----
Cyanides (QCLot: 1549581)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	90.5	80.0	120	----
Cyanides (QCLot: 1549582)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	90.9	80.0	120	----
Cyanides (QCLot: 1549583)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	82.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1543031)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	100	80.0	120	----
Total Metals (QCLot: 1554447)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	99.0	80.0	120	----
Total Metals (QCLot: 1563716)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.7	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	94.4	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.5	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.0	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	90.8	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.2	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.3	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.5	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.2	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	88.3	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	86.7	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.3	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	95.0	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	95.8	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.8	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	90.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.8	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	97.7	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	90.9	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1563716) - continued									
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.7	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	94.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	86.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.5	80.0	120	----
Total Metals (QCLot: 1563717)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.3	80.0	120	----
Total Metals (QCLot: 1563718)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	104	80.0	120	----
Dissolved Metals (QCLot: 1560361)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.0	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	97.9	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	101	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.9	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	97.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	97.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.1	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.2	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	99.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1560361) - continued									
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.1	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.4	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	97.3	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	90.7	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	96.1	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	97.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	98.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.2	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.8	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.7	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.0	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	92.6	80.0	120	----
Dissolved Metals (QCLot: 1560362)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	99.9	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1542438)										
WP2417251-007	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1542439)										
WP2417251-007	Anonymous	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1542440)										
WP2417251-007	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1542441)										
WP2417251-007	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.507 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1545595)										
WP2417255-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.204 mg/L	0.25 mg/L	81.7	70.0	130	----
Anions and Nutrients (QCLot: 1547591)										
WP2417255-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Cyanides (QCLot: 1549581)										
WP2417255-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.112 mg/L	0.125 mg/L	89.9	75.0	125	----
Cyanides (QCLot: 1549582)										
WP2417255-001	Anonymous	Cyanide, free	----	E339-L	0.113 mg/L	0.125 mg/L	90.1	75.0	125	----
Cyanides (QCLot: 1549583)										
WP2417255-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.196 mg/L	0.25 mg/L	78.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1543031)										
WP2416300-006	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1554447)										
WP2417255-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000939 mg/L	0 mg/L	93.9	70.0	130	----
Total Metals (QCLot: 1563716)										
WP2417206-003	Anonymous	Aluminum, total	7429-90-5	E420	0.203 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Barium, total	7440-39-3	E420	0.0193 mg/L	0.02 mg/L	96.3	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0395 mg/L	0.04 mg/L	98.7	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00992 mg/L	0.01 mg/L	99.2	70.0	130	----
		Boron, total	7440-42-8	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00969 mg/L	0.01 mg/L	96.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0394 mg/L	0.04 mg/L	98.6	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1563716) - continued										
WP2417206-003	Anonymous	Cobalt, total	7440-48-4	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Copper, total	7440-50-8	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Iron, total	7439-89-6	E420	1.93 mg/L	2 mg/L	96.4	70.0	130	----
		Lead, total	7439-92-1	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0994 mg/L	0.1 mg/L	99.4	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0186 mg/L	0.02 mg/L	93.1	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0392 mg/L	0.04 mg/L	97.9	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.99 mg/L	10 mg/L	99.9	70.0	130	----
		Potassium, total	7440-09-7	E420	4.00 mg/L	4 mg/L	100	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0386 mg/L	0.04 mg/L	96.6	70.0	130	----
		Silicon, total	7440-21-3	E420	9.94 mg/L	10 mg/L	99.4	70.0	130	----
		Silver, total	7440-22-4	E420	0.00384 mg/L	0.004 mg/L	95.9	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.0 mg/L	20 mg/L	99.8	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0370 mg/L	0.04 mg/L	92.5	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00373 mg/L	0.004 mg/L	93.2	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, total	7440-31-5	E420	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0192 mg/L	0.02 mg/L	96.0	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0988 mg/L	0.1 mg/L	98.8	70.0	130	----
		Zinc, total	7440-66-6	E420	0.377 mg/L	0.4 mg/L	94.4	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
Dissolved Metals (QCLot: 1546715)										
WP2417255-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000106 mg/L	0 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1560361)										
WP2417218-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.203 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00945 mg/L	0.01 mg/L	94.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00406 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1560361) - continued										
WP2417218-004	Anonymous	Copper, dissolved	7440-50-8	E421	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.99 mg/L	2 mg/L	99.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.60 mg/L	10 mg/L	86.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00371 mg/L	0.004 mg/L	92.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.8 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00386 mg/L	0.004 mg/L	96.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00397 mg/L	0.004 mg/L	99.4	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.400 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0411 mg/L	0.04 mg/L	103	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 ashley.moncrief@kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 hannah.hillier@kinross.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 christopher.reid@kinross.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 jacob.mcfee@kinross.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 curtis.bloemberg@kinross.com	
Company:		Email 6 emily.meek@kinross.com	Analysis Request
		Email 7 aaron.peloquin@kinross.com	
		Email 8 amy.elliot@wsp.com	
		Email 9 dale.klodnicki@wsp.com	
Contact:		Email 10 matthew.wilson4@wsp.com	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-01	8-Jul-24	14:50	Water		X			5.58	27	46.6
	SW-DUP-01	8-Jul-24	14:55	Water		X			5.58	27	46.6
	SW-BLANK-01	8-Jul-24	15:00	Water		X			5.58	27	46.6
	SW-08	8-Jul-24	13:35	Water		X			6.62	22.7	68.5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	July 9 2024	Time: 9:00	Received by: Ledingham 227C	Date: JUL 12 2024	Time: 09:35	Received by:	Time:

Environmental Division
Winnipeg
Work Order Reference
WP2417256

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross - Great Bear Resources				**COC receipt info complete**		☑
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white 1x250	4x500, 3x100	Orange/black	
Purple/white	8x100	Dark blue/white	
Red/white	8x125	Black/white	
Dark green/white	3x145, 1x60	Brown/white	
Grey/white		Pink/white	
Yellow/black	8x40	Beige/white	
Light blue/white		Other (specify)	

Comments:

22.7°C, ice packs ✓, Cooling initiated

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix	✓		All received bottles have IDs	✓	
Client, office, contact, quote, project	✓		Type, volume, and locations	✓	
Receipt time/date, PO, project, site	✓		Labels and internal COCs printed	✓	
Temp, cooling method, sampler	✓		**Client Contacts**	**✓/X**	**N/A**
Sample Info	**✓/X**	**N/A**	Report/invoice/EDD recipients	✓	
Sample date/time	✓		Report types/formats	✓	
Sample ID/description	✓		**Post-committing**	**✓/X**	**N/A**
Sales items	✓		Runs built and field data entered	✓	
Guidelines/thresholds		✓	Billing information entered		✓
Additional sample/WO information	✓		**Action Required?**	**Yes**	**No**
Due Dates	**✓/X**	**N/A**	Update default receipt data		✓
COC/GEL/client due dates match	✓		Update default report data		✓
Express TAT surcharges		✓	Add sales/billing items to quote		✓
Clock running for all samples	✓		SIF initiated (elaborate in comments)		

Comments:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2419020**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Aug-2024 10:25
PO	: PPR-022-3	Date Analysis Commenced	: 07-Aug-2024
C-O-C number	: ----	Issue Date	: 22-Aug-2024 15:30
Sampler	: CB/AP/EM/JM		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-08a	SW-01	SW-GL02	DUP-01
					Client sampling date / time	04-Aug-2024 13:30	04-Aug-2024 14:30	04-Aug-2024 11:40	04-Aug-2024 09:00	04-Aug-2024 11:45
						WP2419020-001	WP2419020-002	WP2419020-003	WP2419020-004	WP2419020-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.61	6.61	5.37	6.56	5.37
Temperature, field	----	EF001/WP	0.10	°C		21.6	22.0	18.9	10.9	18.9
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	3.6	<2.0	3.4
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		38.6	37.4	13.9	60.7	14.3
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		38.6	37.4	13.9	60.7	14.3
Conductivity	----	E100/WP	1.0	µS/cm		86.7	83.6	49.6	126	49.7
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		44.3	43.1	32.5	63.2	32.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		47.3	45.7	34.3	66.0	34.1
pH	----	E108/WP	0.10	pH units		7.46	7.51	6.65	7.81	6.68
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		72.3	69.0	80.6	99.3	82.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		8.7	8.6	2.7	2.5	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0853	0.0887	0.0309	0.0342	0.0189
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.33	0.30	<0.10	0.42	<0.10
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.141	0.138	<0.0050	0.174	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.160	0.156	<0.0051	0.177	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0187	0.0177	<0.0010	0.0028	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0504	0.0649	0.0230	0.0368	0.0244
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.83	0.77	<0.30	2.36	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0019	0.0021	0.0024	0.0016	0.0023
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0100 DLM	0.0018	0.0019	0.0012	0.0019

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-08a	SW-01	SW-GL02	DUP-01
					Client sampling date / time	04-Aug-2024 13:30	04-Aug-2024 14:30	04-Aug-2024 11:40	04-Aug-2024 09:00	04-Aug-2024 11:45
						WP2419020-001	WP2419020-002	WP2419020-003	WP2419020-004	WP2419020-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0018	0.0019	0.0023	0.0014	0.0023
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		26.3	27.1	55.1	20.8	53.5
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.283	0.226	0.357	0.0887	0.364
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00014	<0.00010	0.00018
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00379	0.00394	0.00584	0.00368	0.00616
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0127	0.0118	0.00712	0.00850	0.00721
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000021	0.000028	0.000032	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000055	<0.0000050	0.0000078	<0.0000050	0.0000078
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.9	12.4	9.84	19.5	9.61
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000030	0.000027	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00074	0.00067	0.00091	0.00058	0.00093
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00074	0.00067	0.00091	0.00058	0.00093
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00023	0.00025	0.00035	0.00022	0.00036
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00119	0.00109	0.00053	0.00061	0.00056
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.771	0.733	1.27	1.57	1.37
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000200	0.000201	0.000215	0.000056	0.000220
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0044	0.0042	0.0034	0.0031	0.0019
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.67	3.57	2.37	4.20	2.45
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0558	0.0610	0.0298	0.0236	0.0313
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000258	0.000234	0.000054	0.000326	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00100	0.00097	0.00112	0.00072	0.00119
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.043	0.041	<0.030	0.037	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.03	0.981	0.051	1.12	0.050
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00246	0.00238	0.00028	0.00226	0.00026

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-08a	SW-01	SW-GL02	DUP-01
					Client sampling date / time	04-Aug-2024 13:30	04-Aug-2024 14:30	04-Aug-2024 11:40	04-Aug-2024 09:00	04-Aug-2024 11:45
						WP2419020-001	WP2419020-002	WP2419020-003	WP2419020-004	WP2419020-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000153	0.000132	0.000256	0.000085	0.000309
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.14	2.00	0.21	7.18	0.25
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.73	1.67	1.14	2.08	1.19
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0296	0.0288	0.0254	0.0407	0.0245
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.53	0.64	<0.50	0.81	0.54
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	0.00023
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00010	0.00010	0.00015	<0.00010	0.00015
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	<0.00010	Not Detected	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0121	0.0108	0.00414	0.00459	0.00455
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	<0.00010	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000248	0.000223	0.000094	0.000195	0.000101
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00135	0.00131	0.00068	0.00121	0.00071
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00050	0.00046	0.00053	0.00024	0.00052
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0542	0.0555	0.331	0.0641	0.340
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00013	<0.00010	0.00014
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00367	0.00366	0.00595	0.00351	0.00591
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0104	0.0101	0.00707	0.00802	0.00715
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	0.000021	0.000023	<0.000020	0.000028
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	<0.000050	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000066	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.1	11.8	9.26	19.0	9.38
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00035	0.00032	0.00093	0.00052	0.00090
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00093	0.00052	0.00090
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00013	0.00014	0.00030	0.00017	0.00032

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-08	SW-08a	SW-01	SW-GL02	DUP-01
					Client sampling date / time	04-Aug-2024 13:30	04-Aug-2024 14:30	04-Aug-2024 11:40	04-Aug-2024 09:00	04-Aug-2024 11:45
						WP2419020-001	WP2419020-002	WP2419020-003	WP2419020-004	WP2419020-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00097	0.00093	0.00052	0.00056	0.00057
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.457	0.447	1.08	1.26	1.10
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000102	0.000143	0.000217	0.000063	0.000223
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0024	0.0023	0.0014	0.0027	0.0015
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.43	3.32	2.27	3.82	2.28
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0411	0.0492	0.0276	0.0187	0.0280
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000243	0.000240	0.000055	0.000307	0.000062
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00070	0.00069	0.00112	0.00061	0.00113
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	0.032	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.918	0.914	<0.050	1.06	0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00197	0.00197	0.00022	0.00209	0.00024
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000090	0.000085	0.000152	0.000090	0.000086
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.70	1.66	0.187	6.76	0.186
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	Not Detected	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.64	1.56	1.06	1.88	1.07
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0283	0.0274	0.0252	0.0419	0.0254
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.58	<0.50	0.65	0.52
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00017	<0.00010	0.00017
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00274	0.00255	0.00385	0.00344	0.00389
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	<0.00010	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000230	0.000222	0.000098	0.000186	0.000097
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00085	0.00089	0.00059	0.00100	0.00059
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0053 RRV	<0.0010	0.0023
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00044	0.00041	0.00061	<0.00030	0.00063
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-08	SW-08a	SW-01	SW-GL02	DUP-01
					Client sampling date / time	04-Aug-2024 13:30	04-Aug-2024 14:30	04-Aug-2024 11:40	04-Aug-2024 09:00	04-Aug-2024 11:45
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2419020-001	WP2419020-002	WP2419020-003	WP2419020-004	WP2419020-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	BLANK-01	SW-04	SW-TR	----	----
				Client sampling date / time	04-Aug-2024 11:50	04-Aug-2024 12:40	04-Aug-2024 10:55	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2419020-006	WP2419020-007	WP2419020-008	--------	--------
					Result	Result	Result	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	----	6.25	3.76	----	----
Temperature, field	----	EF001/WP	0.10	°C	----	21.4	21.3	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	3.3	16.1	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	36.7	<1.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	36.7	<1.0	----	----
Conductivity	----	E100/WP	1.0	µS/cm	1.0	80.5	31.0	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	<0.50	42.8	10.3	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	<0.50	42.2	10.4	----	----
pH	----	E108/WP	0.10	pH units	5.50	7.46	4.54	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	<3.0	73.3	83.6	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	<1.0	8.7	1.4	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0063	0.148	0.0070	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	----	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	Not Detected	0.22	<0.10	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	0.117	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	0.149	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	0.0322	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	Not Detected	0.0515	0.0209	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	<0.30	0.68	<0.30	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0012	0.0018	0.0017	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0011	0.0015	0.0014	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	0.0011	0.0018	0.0017	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BLANK-01	SW-04	SW-TR	----	----
					Client sampling date / time	04-Aug-2024 11:50	04-Aug-2024 12:40	04-Aug-2024 10:55	----	----
						WP2419020-006	WP2419020-007	WP2419020-008	--------	--------
						Result	Result	Result	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		<0.50	25.6	52.9	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0041	0.299	0.673	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00020	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		Not Detected	0.00402	0.00767	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		<0.00010	0.0110	0.00549	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000023	0.000026	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		Not Detected	<0.010	<0.010	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		Not Detected	0.0000055	0.0000220	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		<0.050	11.1	2.62	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		Not Detected	0.000034	0.000014	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	0.00080	0.00102	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		Not Detected	0.00080	0.00102	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		Not Detected	0.00027	0.00048	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		Not Detected	0.00124	<0.00050	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		<0.010	0.864	1.47	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		Not Detected	0.000196	0.000457	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	0.0026	0.0016	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		<0.0050	3.51	0.946	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		<0.00010	0.0569	0.0124	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		Not Detected	0.000231	<0.000050	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		Not Detected	0.00102	0.00113	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.047	<0.030	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		Not Detected	0.943	<0.050	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		Not Detected	0.00248	0.00023	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		Not Detected	0.000198	0.000056	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		<0.10	2.17	2.72	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BLANK-01	SW-04	SW-TR	----	----
					Client sampling date / time	04-Aug-2024 11:50	04-Aug-2024 12:40	04-Aug-2024 10:55	----	----
						WP2419020-006	WP2419020-007	WP2419020-008	--------	--------
						Result	Result	Result	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	<0.000010	<0.000010	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		Not Detected	1.57	0.887	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		Not Detected	0.0272	0.0134	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		Not Detected	<0.50	<0.50	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	<0.000010	<0.000010	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	<0.00010	0.00016	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00013	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	0.0140	0.00757	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	<0.00010	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		Not Detected	0.000202	0.000086	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		Not Detected	0.00140	0.00079	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		Not Detected	<0.0030	0.0049	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		Not Detected	0.00042	0.00041	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		<0.0010	0.0637	0.650	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		Not Detected	<0.00010	0.00021	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		Not Detected	0.00380	0.00758	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		Not Detected	0.00943	0.00546	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	<0.000020	0.000032	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	<0.000050	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		Not Detected	<0.010	Not Detected	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		Not Detected	<0.0000050	0.0000175	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		Not Detected	11.5	2.64	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	0.000013	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00037	0.00100	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		Not Detected	<0.00050	0.00100	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		Not Detected	0.00014	0.00045	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		Not Detected	0.00100	0.00052	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		Not Detected	0.490	1.35	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BLANK-01	SW-04	SW-TR	----	----
					Client sampling date / time	04-Aug-2024 11:50	04-Aug-2024 12:40	04-Aug-2024 10:55	----	----
						WP2419020-006	WP2419020-007	WP2419020-008	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		Not Detected	0.000143	0.000459	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		Not Detected	0.0023	0.0012	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		Not Detected	3.42	0.906	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		<0.00010	0.0439	0.0119	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		Not Detected	0.000227	<0.000050	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		Not Detected	0.00071	0.00115	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	<0.050	Not Detected	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		Not Detected	0.844	<0.050	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		Not Detected	0.00199	<0.00020	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	0.000140	0.000133	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		<0.050	1.68	2.32	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	<0.000010	<0.000010	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		Not Detected	1.48	0.840	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		Not Detected	0.0266	0.0127	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		Not Detected	0.58	<0.50	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	<0.000010	<0.000010	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	<0.00010	0.00017	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	<0.00010	<0.00010	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		Not Detected	0.00286	0.00679	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	<0.00010	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		Not Detected	0.000184	0.000085	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		Not Detected	0.00084	0.00074	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0013	0.0064	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		Not Detected	0.00042	0.00045	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2419020**	Page	: 1 of 32
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Aug-2024 10:25
PO	: PPR-022-3	Issue Date	: 22-Aug-2024 15:34
C-O-C number	: ----		
Sampler	: CB/AP/EM/JM		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	04-Aug-2024	12-Aug-2024	28 days	8 days	✓	12-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	04-Aug-2024	12-Aug-2024	28 days	8 days	✓	12-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08a	E298	04-Aug-2024	12-Aug-2024	28 days	8 days	✓	12-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL02	E298	04-Aug-2024	12-Aug-2024	28 days	8 days	✓	12-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK-01	E298	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-01	E298	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE BLANK-01	E235.Cl-L	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DUP-01	E235.Cl-L	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-01	E235.Cl-L	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-04	E235.Cl-L	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-08	E235.Cl-L	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-08a	E235.Cl-L	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL02	E235.Cl-L	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-TR	E235.Cl-L	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
BLANK-01	E235.NO3-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
DUP-01	E235.NO3-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-01	E235.NO3-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-04	E235.NO3-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-08	E235.NO3-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-08a	E235.NO3-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-GL02	E235.NO3-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO3-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
BLANK-01	E235.NO2-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
DUP-01	E235.NO2-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-01	E235.NO2-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-04	E235.NO2-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-08	E235.NO2-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-08a	E235.NO2-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL02	E235.NO2-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO2-L	04-Aug-2024	07-Aug-2024	3 days	3 days	✓	07-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
BLANK-01	E235.SO4	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
DUP-01	E235.SO4	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-01	E235.SO4	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-04	E235.SO4	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-08	E235.SO4	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-08a	E235.SO4	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL02	E235.SO4	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-TR	E235.SO4	04-Aug-2024	07-Aug-2024	28 days	3 days	✓	07-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) BLANK-01	E372-U	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DUP-01	E372-U	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08a	E372-U	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL02	E372-U	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) BLANK-01	E339-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DUP-01	E339-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E339-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E339-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08a	E339-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E333-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08a	E333-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E336-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08a	E336-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E336-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	04-Aug-2024	09-Aug-2024	14 days	5 days	✓	09-Aug-2024	14 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-01	E421.Cr-L	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.Cr-L	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.Cr-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08a	E421.Cr-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL02	E421.Cr-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) BLANK-01	E509	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-01	E509	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08a	E509	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL02	E509	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK-01	E421	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-01	E421	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08a	E421	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL02	E421	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK-01	E421.P-L	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.P-L	04-Aug-2024	14-Aug-2024	180 days	10 days	✓	14-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
DUP-01	E421.P-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-01	E421.P-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08	E421.P-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08a	E421.P-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.P-L	04-Aug-2024	13-Aug-2024	180 days	9 days	✓	13-Aug-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
DUP-01	EF001	04-Aug-2024	----	----	----		09-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
SW-01	EF001	04-Aug-2024	----	----	----		09-Aug-2024	----	5 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-04	EF001	04-Aug-2024	----	----	----		09-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08	EF001	04-Aug-2024	----	----	----		09-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-08a	EF001	04-Aug-2024	----	----	----		09-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-GL02	EF001	04-Aug-2024	----	----	----		09-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-TR	EF001	04-Aug-2024	----	----	----		09-Aug-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) BLANK-01	E358-L	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DUP-01	E358-L	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-08a	E358-L	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL02	E358-L	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	04-Aug-2024	09-Aug-2024	28 days	5 days	✓	09-Aug-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TR	E358-L	04-Aug-2024	09-Aug-2024	28 days	5 days	✓	09-Aug-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK-01	E283	04-Aug-2024	10-Aug-2024	14 days	6 days	✓	13-Aug-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-01	E283	04-Aug-2024	10-Aug-2024	14 days	6 days	✓	13-Aug-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-01	E283	04-Aug-2024	10-Aug-2024	14 days	6 days	✓	13-Aug-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-04	E283	04-Aug-2024	10-Aug-2024	14 days	6 days	✓	13-Aug-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-08	E283	04-Aug-2024	10-Aug-2024	14 days	6 days	✓	13-Aug-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-08a	E283	04-Aug-2024	10-Aug-2024	14 days	6 days	✓	13-Aug-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL02	E283	04-Aug-2024	10-Aug-2024	14 days	6 days	✓	13-Aug-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	04-Aug-2024	10-Aug-2024	14 days	6 days	✓	13-Aug-2024	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE BLANK-01	E290	04-Aug-2024	08-Aug-2024	14 days	4 days	✓	08-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DUP-01	E290	04-Aug-2024	08-Aug-2024	14 days	4 days	✓	08-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-01	E290	04-Aug-2024	08-Aug-2024	14 days	4 days	✓	08-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-04	E290	04-Aug-2024	08-Aug-2024	14 days	4 days	✓	08-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08	E290	04-Aug-2024	08-Aug-2024	14 days	4 days	✓	08-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08a	E290	04-Aug-2024	08-Aug-2024	14 days	4 days	✓	08-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL02	E290	04-Aug-2024	08-Aug-2024	14 days	4 days	✓	08-Aug-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TR	E290	04-Aug-2024	08-Aug-2024	14 days	4 days	✓	08-Aug-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE BLANK-01	E100	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE DUP-01	E100	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-01	E100	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-04	E100	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08	E100	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08a	E100	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL02	E100	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE SW-TR	E100	04-Aug-2024	08-Aug-2024	28 days	4 days	✓	08-Aug-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE SW-08	E108	04-Aug-2024	08-Aug-2024	0.25 hrs	100 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	105 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-04	E108	04-Aug-2024	08-Aug-2024	0.25 hrs	101 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	106 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE BLANK-01	E108	04-Aug-2024	08-Aug-2024	0.25 hrs	102 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	107 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DUP-01	E108	04-Aug-2024	08-Aug-2024	0.25 hrs	102 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	107 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-01	E108	04-Aug-2024	08-Aug-2024	0.25 hrs	102 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	107 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-TR	E108	04-Aug-2024	08-Aug-2024	0.25 hrs	103 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	108 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL02	E108	04-Aug-2024	08-Aug-2024	0.25 hrs	104 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	110 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08a	E108	04-Aug-2024	08-Aug-2024	0.25 hrs	99 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	104 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE BLANK-01	E162-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DUP-01	E162-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-01	E162-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-04	E162-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08	E162-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08a	E162-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL02	E162-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TR	E162-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] BLANK-01	E160-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] DUP-01	E160-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08a	E160-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-GL02	E160-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	04-Aug-2024	----	----	----		08-Aug-2024	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-01	E420.Cr-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08a	E420.Cr-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-01	E508	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08a	E508	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL02	E508	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	04-Aug-2024	13-Aug-2024	28 days	9 days	✓	13-Aug-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK-01	E420	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-01	E420	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08a	E420	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-01	E420.P-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-01	E420.P-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08a	E420.P-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL02	E420.P-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	04-Aug-2024	12-Aug-2024	180 days	8 days	✓	12-Aug-2024	180 days	8 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1588953	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1586534	3	33	9.0	5.0	✓
Ammonia by Fluorescence	E298	1590358	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1584629	2	22	9.0	5.0	✓
Conductivity in Water	E100	1586536	3	40	7.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1593643	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1592808	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1593642	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1585365	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1593644	1	18	5.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1587970	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1584630	2	22	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1584631	2	22	9.0	5.0	✓
pH by Meter	E108	1586535	3	47	6.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1584632	2	23	8.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1584436	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1590972	1	18	5.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1587971	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1592807	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1590974	1	27	3.7	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594606	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1590973	1	18	5.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1584648	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1587969	1	15	6.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1588953	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1586534	3	33	9.0	5.0	✓
Ammonia by Fluorescence	E298	1590358	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1584629	2	22	9.0	5.0	✓
Conductivity in Water	E100	1586536	3	40	7.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1593643	2	18	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1592808	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1593642	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1585365	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1593644	2	18	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1587970	1	15	6.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1584630	2	22	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1584631	2	22	9.0	5.0	✓
pH by Meter	E108	1586535	3	47	6.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1584632	2	23	8.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1584436	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1590972	2	18	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1587971	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1592807	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1590974	2	27	7.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594606	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1590973	2	18	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1584648	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1587969	1	15	6.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1588953	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1586534	3	33	9.0	5.0	✓
Ammonia by Fluorescence	E298	1590358	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1584629	2	22	9.0	5.0	✓
Conductivity in Water	E100	1586536	3	40	7.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1593643	2	18	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1592808	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1593642	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1585365	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1593644	2	18	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1587970	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1584630	2	22	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1584631	2	22	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1584632	2	23	8.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1584436	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1590972	2	18	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1587971	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1592807	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1590974	2	27	7.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594606	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1590973	2	18	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1584648	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1587969	1	15	6.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1590358	2	40	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1584629	2	22	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1593643	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1592808	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1593642	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1585365	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1593644	1	18	5.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1587970	1	15	6.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1584630	2	22	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1584631	2	22	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1584632	2	23	8.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1590972	1	18	5.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1587971	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1592807	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1590974	1	27	3.7	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594606	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1590973	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1587969	1	15	6.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2419020**	Page	: 1 of 27
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Aug-2024 10:25
PO	: PPR-022-3	Date Analysis Commenced	: 07-Aug-2024
C-O-C number	: ----	Issue Date	: 22-Aug-2024 15:30
Sampler	: CB/AP/EM/JM		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1584436)											
WP2418981-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	1410	1420	1.17%	20%	----
Physical Tests (QC Lot: 1584648)											
WP2419020-001	SW-08	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	8.7	9.1	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 1586534)											
WP2418935-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	159	159	0.126%	20%	----
Physical Tests (QC Lot: 1586535)											
WP2418935-002	Anonymous	pH	----	E108	0.10	pH units	8.46	8.44	0.237%	4%	----
Physical Tests (QC Lot: 1586536)											
WP2418935-002	Anonymous	Conductivity	----	E100	1.0	µS/cm	291	286	1.73%	10%	----
Physical Tests (QC Lot: 1586555)											
WP2419024-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	93.5	96.1	2.74%	10%	----
Physical Tests (QC Lot: 1586556)											
WP2419024-001	Anonymous	pH	----	E108	0.10	pH units	7.66	7.63	0.392%	4%	----
Physical Tests (QC Lot: 1586557)											
WP2419024-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.8	34.3	1.47%	20%	----
Physical Tests (QC Lot: 1588953)											
WP2419020-001	SW-08	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	2.8	0.8	Diff <2x LOR	----
Physical Tests (QC Lot: 1592358)											
WP2419325-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	57.7	58.3	1.03%	20%	----
Physical Tests (QC Lot: 1592359)											
WP2419325-001	Anonymous	pH	----	E108	0.10	pH units	8.76	8.77	0.114%	4%	----
Physical Tests (QC Lot: 1592360)											
WP2419325-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1120	1120	0.178%	10%	----
Anions and Nutrients (QC Lot: 1584629)											
WP2418935-009	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.88	0.87	0.008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584630)											
WP2418935-009	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584631)											
WP2418935-009	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584632)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1584632) - continued											
WP2418935-009	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	1.99	1.98	0.02	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584634)											
WP2419020-003	SW-01	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584635)											
WP2419020-003	SW-01	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584636)											
WP2419020-003	SW-01	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584637)											
WP2419020-003	SW-01	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1590358)											
WP2418935-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0117	0.0108	0.0009	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1592472)											
WP2419024-010	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0122	0.0106	0.0016	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1594606)											
WP2419020-001	SW-08	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0504	0.0492	2.33%	20%	----
Cyanides (QC Lot: 1587969)											
WP2419020-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0018	0.0018	0.00001	Diff <2x LOR	----
Cyanides (QC Lot: 1587970)											
WP2419020-001	SW-08	Cyanide, free	----	E339-L	0.0010	mg/L	0.0019	0.0018	0.00003	Diff <2x LOR	----
Cyanides (QC Lot: 1587971)											
WP2419020-001	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1585365)											
WP2418231-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.8	11.8	0.645%	20%	----
Organic / Inorganic Carbon (QC Lot: 1587259)											
WP2419020-007	SW-04	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	25.6	26.6	3.96%	20%	----
Total Metals (QC Lot: 1590972)											
WP2419020-004	SW-GL02	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00058	0.00058	0.000003	Diff <2x LOR	----
Total Metals (QC Lot: 1590973)											
WP2419020-004	SW-GL02	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.037	0.041	0.004	Diff <2x LOR	----
Total Metals (QC Lot: 1590974)											
WP2419020-004	SW-GL02	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0887	0.0970	8.89%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00368	0.00365	0.897%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1590974) - continued											
WP2419020-004	SW-GL02	Barium, total	7440-39-3	E420	0.00010	mg/L	0.00850	0.00857	0.755%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	0.0000067	0.0000017	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	19.5	18.7	4.03%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	0.000011	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00058	0.00058	0.000003	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00022	0.00021	0.000004	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00061	0.00060	0.000009	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	1.57	1.57	0.133%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000056	0.000059	0.000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0031	0.0029	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.20	4.16	0.880%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0236	0.0236	0.368%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000326	0.000339	0.000013	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00072	0.00070	0.00002	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.12	1.11	0.444%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00226	0.00218	3.70%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000085	0.000169	0.000084	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	7.18	7.22	0.572%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.08	2.02	3.15%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0407	0.0411	1.12%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	0.81	0.74	0.07	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00459	0.00493	7.26%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000195	0.000189	3.08%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00121	0.00124	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1590974) - continued											
WP2419020-004	SW-GL02	Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00024	0.00023	0.000010	Diff <2x LOR	----
Total Metals (QC Lot: 1592807)											
WP2418437-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1592808)											
WP2418529-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1593642)											
WP2418939-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0292	0.0285	2.62%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00033	0.00033	0.000003	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00069	0.00064	0.00005	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0193	0.0190	1.62%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.064	0.063	0.0006	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000173	0.0000179	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	46.3	45.3	2.09%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000014	0.000013	0.0000003	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.274	0.270	1.62%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.163	0.161	1.23%	20%	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0504	0.0494	2.09%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	8.93	8.81	1.34%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00094	0.00088	0.00006	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00344	0.00338	2.02%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00140	0.00134	0.00006	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.306	0.306	0.0005	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	11.4	11.3	0.884%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00319	0.00325	1.80%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000262	0.000270	0.000008	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	4.66	4.49	3.73%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.000043	0.000037	0.000006	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	44.4	45.1	1.53%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1593642) - continued											
WP2418939-004	Anonymous	Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.176	0.170	3.43%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	62.6	62.4	0.292%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000020	0.000018	0.000002	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000037	0.000035	0.000002	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00122	0.00118	0.00004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0315	0.0300	5.08%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1595905)											
WP2419020-007	SW-04	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00037	0.00037	0.000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1595906)											
WP2419020-007	SW-04	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1595907)											
WP2419020-007	SW-04	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0637	0.0643	0.902%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00380	0.00384	1.09%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00943	0.00947	0.429%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	11.5	11.5	0.233%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00014	0.00015	0.000009	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00100	0.00098	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.490	0.488	0.423%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000143	0.000142	0.0000009	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0023	0.0022	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	3.42	3.39	0.861%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1595907) - continued											
WP2419020-007	SW-04	Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0439	0.0447	1.98%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000227	0.000242	0.000015	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00071	0.00068	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.844	0.856	1.34%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00199	0.00213	6.48%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000140	0.000060	0.000080	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.68	1.69	0.910%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.48	1.55	4.70%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0266	0.0262	1.43%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.58	0.53	0.05	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00286	0.00285	0.000007	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000184	0.000179	2.48%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00084	0.00085	0.00001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0013	0.0013	0.00002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00042	0.00044	0.00001	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1584436)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1584648)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1586534)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1586536)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1586555)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1586557)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1588953)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1592358)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1592360)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Anions and Nutrients (QCLot: 1584629)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1584630)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1584631)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1584632)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1584634)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1584635)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1584636)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1584637)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1584637) - continued						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1590358)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1592472)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1594606)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1587969)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1587970)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1587971)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1585365)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1587259)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1590972)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1590973)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1590974)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1590974) - continued						
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1590983)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1590983) - continued						
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1590984)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1590985)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1592807)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1592808)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1593642)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1593642) - continued						
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1593643)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1593644)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1595905)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1595906)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1595907)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1595907) - continued						
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1584436)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.8	85.0	115	----
Physical Tests (QCLot: 1584648)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.7	85.0	115	----
Physical Tests (QCLot: 1586534)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1586535)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1586536)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1586555)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1586556)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1586557)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1588953)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	94.7	85.0	115	----
Physical Tests (QCLot: 1592358)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1592359)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1592360)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.8	90.0	110	----
Anions and Nutrients (QCLot: 1584629)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1584630)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1584631)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1584632)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.6	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1584634)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 1584635)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1584636)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 1584637)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1590358)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 1592472)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.6	85.0	115	----
Anions and Nutrients (QCLot: 1594606)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.6	80.0	120	----
Cyanides (QCLot: 1587969)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	94.8	80.0	120	----
Cyanides (QCLot: 1587970)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.8	80.0	120	----
Cyanides (QCLot: 1587971)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	84.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1585365)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	104	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1587259)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Total Metals (QCLot: 1590972)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
Total Metals (QCLot: 1590973)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----
Total Metals (QCLot: 1590974)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1590974) - continued									
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.3	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.8	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.5	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	111	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.4	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	101	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.5	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	97.1	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	98.9	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.1	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	95.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.9	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.1	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.9	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.3	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	107	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	94.2	80.0	120	----
Total Metals (QCLot: 1590983)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1590983) - continued									
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.7	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	98.0	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	110	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.1	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	107	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.8	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	98.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	98.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.9	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.3	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	118	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.1	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.9	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	96.0	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	100	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	91.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.9	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	99.9	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	91.1	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.2	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	97.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	95.9	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.1	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	97.7	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.0	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1590983) - continued									
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	95.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.5	80.0	120	----
Total Metals (QCLot: 1590984)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	98.0	80.0	120	----
Total Metals (QCLot: 1590985)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Total Metals (QCLot: 1592807)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.7	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	98.6	80.0	120	----
Dissolved Metals (QCLot: 1593642)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	95.7	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.0	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	96.5	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	94.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	93.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	88.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	100	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	97.1	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.3	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	92.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	82.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1593642) - continued									
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	89.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	99.1	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	87.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	99.5	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.6	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.3	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	105	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.2	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	88.3	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.6	80.0	120	----
Dissolved Metals (QCLot: 1593643)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 1595905)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.6	80.0	120	----
Dissolved Metals (QCLot: 1595907)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.9	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.0	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.3	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1595907) - continued									
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	96.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	97.6	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.5	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.5	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	97.2	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	93.7	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	89.2	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.5	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.0	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.5	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.9	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1584629)										
WP2418935-009	Anonymous	Chloride	16887-00-6	E235.Cl-L	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1584630)										
WP2418935-009	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.60 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1584631)										
WP2418935-009	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.500 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1584632)										
WP2418935-009	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	100 mg/L	100 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1584634)										
WP2419020-003	SW-01	Sulfate (as SO4)	14808-79-8	E235.SO4	108 mg/L	100 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1584635)										
WP2419020-003	SW-01	Nitrate (as N)	14797-55-8	E235.NO3-L	2.71 mg/L	2.5 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1584636)										
WP2419020-003	SW-01	Nitrite (as N)	14797-65-0	E235.NO2-L	0.514 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1584637)										
WP2419020-003	SW-01	Chloride	16887-00-6	E235.Cl-L	107 mg/L	100 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1590358)										
WP2418935-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.106 mg/L	0.1 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1592472)										
WP2419024-010	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0987 mg/L	0.1 mg/L	98.7	75.0	125	----
Anions and Nutrients (QCLot: 1594606)										
WP2419020-002	SW-08a	Phosphorus, total	7723-14-0	E372-U	0.190 mg/L	0.25 mg/L	76.0	70.0	130	----
Cyanides (QCLot: 1587969)										
WP2419020-001	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.110 mg/L	0.125 mg/L	87.7	75.0	125	----
Cyanides (QCLot: 1587970)										
WP2419020-001	SW-08	Cyanide, free	----	E339-L	0.118 mg/L	0.125 mg/L	94.2	75.0	125	----
Cyanides (QCLot: 1587971)										
WP2419020-001	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	2.18 mg/L	2.5 mg/L	87.4	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1585365)										
WP2418231-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1587259)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1587259) - continued										
WP2419020-008	SW-TR	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1590972)										
WP2419020-004	SW-GL02	Chromium, total	7440-47-3	E420.Cr-L	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
Total Metals (QCLot: 1590973)										
WP2419020-004	SW-GL02	Phosphorus, total	7723-14-0	E420.P-L	10.4 mg/L	10 mg/L	104	70.0	130	----
Total Metals (QCLot: 1590974)										
WP2419020-004	SW-GL02	Aluminum, total	7429-90-5	E420	0.199 mg/L	0.2 mg/L	99.3	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, total	7440-39-3	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0437 mg/L	0.04 mg/L	109	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Boron, total	7440-42-8	E420	0.113 mg/L	0.1 mg/L	113	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, total	7440-50-8	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, total	7439-89-6	E420	1.99 mg/L	2 mg/L	99.6	70.0	130	----
		Lead, total	7439-92-1	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Lithium, total	7439-93-2	E420	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.00 mg/L	4 mg/L	100.0	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, total	7440-21-3	E420	9.96 mg/L	10 mg/L	99.6	70.0	130	----
		Silver, total	7440-22-4	E420	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00384 mg/L	0.004 mg/L	95.9	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Tin, total	7440-31-5	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1590974) - continued										
WP2419020-004	SW-GL02	Zinc, total	7440-66-6	E420	0.396 mg/L	0.4 mg/L	99.0	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0389 mg/L	0.04 mg/L	97.3	70.0	130	----
Total Metals (QCLot: 1592807)										
WP2418759-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000990 mg/L	0 mg/L	99.0	70.0	130	----
Dissolved Metals (QCLot: 1592808)										
WP2418529-002	Anonymous	Mercury, dissolved	7439-97-6	E509	----	0 mg/L		70.0	130	----
Dissolved Metals (QCLot: 1593642)										
WP2418939-004	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.200 mg/L	0.2 mg/L	100	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0197 mg/L	0.02 mg/L	98.3	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0440 mg/L	0.04 mg/L	110	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00977 mg/L	0.01 mg/L	97.7	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00394 mg/L	0.004 mg/L	98.4	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0192 mg/L	0.02 mg/L	96.2	70.0	130	----
		Copper, dissolved	7440-50-8	E421	ND mg/L	----	ND	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.88 mg/L	2 mg/L	94.2	70.0	130	----
		Lead, dissolved	7439-92-1	E421	ND mg/L	----	ND	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0197 mg/L	0.02 mg/L	98.5	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0373 mg/L	0.04 mg/L	93.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.9 mg/L	10 mg/L	109	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0388 mg/L	0.04 mg/L	96.9	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.27 mg/L	10 mg/L	92.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00390 mg/L	0.004 mg/L	97.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00389 mg/L	0.004 mg/L	97.4	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00417 mg/L	0.004 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1593642) - continued										
WP2418939-004	Anonymous	Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.379 mg/L	0.4 mg/L	94.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1595905)										
WP2419020-007	SW-04	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1595906)										
WP2419020-007	SW-04	Phosphorus, dissolved	7723-14-0	E421.P-L	10.7 mg/L	10 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 1595907)										
WP2419020-007	SW-04	Aluminum, dissolved	7429-90-5	E421	0.199 mg/L	0.2 mg/L	99.7	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0398 mg/L	0.04 mg/L	99.4	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00990 mg/L	0.01 mg/L	99.0	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.100 mg/L	0.1 mg/L	99.7	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00432 mg/L	0.004 mg/L	108	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0959 mg/L	0.1 mg/L	95.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.13 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0445 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.58 mg/L	10 mg/L	95.8	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.08 mg/L	2 mg/L	104	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.7 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00399 mg/L	0.004 mg/L	99.7	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1595907) - continued										
WP2419020-007	SW-04	Uranium, dissolved	7440-61-1	E421	0.00398 mg/L	0.004 mg/L	99.4	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.434 mg/L	0.4 mg/L	108	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	**Analysis Request**
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-08	4-Aug-24	13:30	Water		X			6.61	21.6	82.2
	SW-08a	4-Aug-24	14:30	Water		X			6.61	22	81.1
	SW-01	4-Aug-24	11:40	Water		X			5.37	18.9	46.2
	SW-GL02	4-Aug-24	9:00	Water		X			6.56	10.9	92.9
	DUP-01	4-Aug-24	11:45	Water		X			5.37	18.9	46.2
	BLANK-01	4-Aug-24	11:50	Water		X			[redacted]	[redacted]	[redacted]
	SW-04	4-Aug-24	12:40	Water		X			6.25	21.4	77.3
8	SW-TR	4-Aug-24	10:55	Water		X			3.76	21.3	29.9

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	August 6 2024	Time: 9:00	Received by: GK	Date: Aug 07, 2024	Time: 10:25am	Received by:	Time:

Temperature = 16.1°C

Environmental Division
Winnipeg
Work Order Reference
WP2419020

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross - Great Bear Resources.				**COC receipt info complete** ✓		
Express TAT?	(no)	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	(no)	<24 hrs	1 day	Yes: (2 days)	3 days	4 days
Matrix	(Water)	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions: 72			
Green/white	8x500, 2x250ml	Orange/black	
Purple/white	16x100ml	Dark blue/white	
Red/white	16x125ml	Black/white	
Dark green/white	5x140, 3x60	Brown/white	
Grey/white		Pink/white	
Yellow/black	16x40ml vials	Beige/white	
Light blue/white		Other (specify)	6x125 HDPE Clear.

Comments:
Received with Ice Packs.

Sample Login

Receipt Window	✓/X	N/A	**Bottles**	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

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ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2419024**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Aug-2024 10:15
PO	: PPR-022-3	Date Analysis Commenced	: 07-Aug-2024
C-O-C number	: ----	Issue Date	: 16-Aug-2024 10:21
Sampler	: CB/AP/EM/JM		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-01-B	PL-02	PL-02-B	PL-03
					Client sampling date / time	05-Aug-2024 14:45	05-Aug-2024 14:55	05-Aug-2024 14:00	05-Aug-2024 14:10	05-Aug-2024 13:05
						WP2419024-001	WP2419024-002	WP2419024-003	WP2419024-004	WP2419024-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.95	6.42	7.07	6.68	7.17
Temperature, field	----	EF001/WP	0.10	°C		24.4	22.2	24.1	22.6	23.1
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	2.3	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.8	34.3	39.7	36.5	33.8
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.8	34.3	39.7	36.5	33.8
Conductivity	----	E100/WP	1.0	µS/cm		93.5	87.0	87.3	86.2	84.7
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		41.8	41.4	44.3	42.6	39.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		42.4	42.0	44.5	44.8	40.4
pH	----	E108/WP	0.10	pH units		7.66	7.59	7.75	7.60	7.66
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		61.7	68.0	65.0	66.7	62.7
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.5	34.3	4.1	78.9	1.2
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0176	0.0302	0.0131	0.0123	0.0104
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.81	1.83	0.48	1.31	1.73
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0306	<0.0050	0.0264	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0338	<0.0051	0.0276	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0032	<0.0010	0.0012	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0280	0.0405	0.0248	0.0413	0.0155
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		5.91	4.06	2.00	3.27	3.95
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0014	0.0013	0.0016	0.0014	0.0015
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0011	0.0012	0.0013	0.0012	0.0014

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-01-B	PL-02	PL-02-B	PL-03
					Client sampling date / time	05-Aug-2024 14:45	05-Aug-2024 14:55	05-Aug-2024 14:00	05-Aug-2024 14:10	05-Aug-2024 13:05
						WP2419024-001	WP2419024-002	WP2419024-003	WP2419024-004	WP2419024-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0013	0.0013	0.0014	0.0013	0.0017
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		15.0	15.0	15.3	14.4	14.6
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.139	0.204	0.132	0.698	0.0616
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00026	0.00018	<0.00010	0.00013	0.00018
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0103	0.00736	0.00162	0.00420	0.00387
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00910	0.0105	0.0108	0.0166	0.00908
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000033	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000057	<0.0000050	0.0000166	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.0	12.0	13.0	12.8	11.6
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000018	0.000032	0.000024	0.000124	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00036	0.00052	0.00040	0.00158	0.00020
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00052	<0.00050	0.00158	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00012	0.00018	<0.00010	0.00049	<0.00010
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00150	0.00150	0.00112	0.00200	0.00131
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.197	0.320	0.175	0.977	0.076
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000085	0.000158	0.000079	0.000507	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0026	0.0021	0.0018	0.0030	0.0021
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.02	2.92	2.93	3.11	2.77
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0121	0.0322	0.0116	0.0693	0.00328
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000262	0.000194	0.000191	0.000139	0.000196
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00133	0.00136	0.00061	0.00191	0.00100
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	0.075	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	0.075	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.03	1.04	0.872	1.06	1.00
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00205	0.00234	0.00222	0.00336	0.00186

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-01-B	PL-02	PL-02-B	PL-03
					Client sampling date / time	05-Aug-2024 14:45	05-Aug-2024 14:55	05-Aug-2024 14:00	05-Aug-2024 14:10	05-Aug-2024 13:05
						WP2419024-001	WP2419024-002	WP2419024-003	WP2419024-004	WP2419024-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000140	0.000086	0.000083	0.000200	0.000084
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.94	2.14	1.50	2.78	1.65
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.78	2.19	1.39	1.86	2.02
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0314	0.0272	0.0258	0.0268	0.0266
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.22	1.58	0.95	1.40	1.49
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000012	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00011	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00577	0.00976	0.00559	0.0290	0.00174
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000127	0.000115	0.000088	0.000164	0.000092
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00083	0.00094	0.00069	0.00190	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	0.0037	Not Detected
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00022	0.00030	0.00021	0.00042	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0317	0.0192	0.0434	0.0625	0.0258
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00027	0.00018	<0.00010	0.00013	0.00017
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00989	0.00652	0.00152	0.00350	0.00377
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00846	0.00869	0.0101	0.0106	0.00856
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000084	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.9	11.9	13.0	12.4	11.3
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000013	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00015	0.00015	0.00019	0.00020	0.00018
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-01	PL-01-B	PL-02	PL-02-B	PL-03
					Client sampling date / time	05-Aug-2024 14:45	05-Aug-2024 14:55	05-Aug-2024 14:00	05-Aug-2024 14:10	05-Aug-2024 13:05
						WP2419024-001	WP2419024-002	WP2419024-003	WP2419024-004	WP2419024-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00128	0.00114	0.00103	0.00120	0.00131
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.078	0.060	0.065	0.147	0.045
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	0.000077	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0015	0.0011	0.0015	0.0012
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.94	2.84	2.88	2.82	2.81
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00245	0.00324	0.00148	0.102 RRV	0.00074
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000214	0.000207	0.000209	0.000236	0.000198
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00112	0.00096	<0.00050	0.00076	0.00088
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	Not Detected	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.959	0.954	0.803	0.897	0.938
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00169	0.00174	0.00199	0.00224	0.00176
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000097	<0.000050	0.000134	0.000136	0.000096
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.59	1.83	1.25	1.82	1.52
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.56	2.02	1.28	1.69	2.05
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0324	0.0274	0.0244	0.0246	0.0256
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.02	1.50	0.81	1.15	1.54
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00116	0.00059	0.00128	0.00297	0.00067
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000112	0.000090	0.000082	0.000086	0.000094
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00053	<0.00050	<0.00050	0.00074	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	PL-01	PL-01-B	PL-02	PL-02-B	PL-03
					Client sampling date / time	05-Aug-2024 14:45	05-Aug-2024 14:55	05-Aug-2024 14:00	05-Aug-2024 14:10	05-Aug-2024 13:05
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2419024-001	WP2419024-002	WP2419024-003	WP2419024-004	WP2419024-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-03-B	PL-04	PL-04-B	PL-05	PL-05-B
					Client sampling date / time	05-Aug-2024 13:10	05-Aug-2024 11:40	05-Aug-2024 11:50	05-Aug-2024 10:45	05-Aug-2024 11:00
						WP2419024-006	WP2419024-007	WP2419024-008	WP2419024-009	WP2419024-010
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.41	7.19	7.03	7.32	6.47
Temperature, field	----	EF001/WP	0.10	°C		20.0	23.2	22.8	23.0	21.0
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.6	33.6	33.5	33.9	37.5
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.6	33.6	33.5	33.9	37.5
Conductivity	----	E100/WP	1.0	µS/cm		86.5	84.6	84.8	85.4	92.2
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		41.4	40.7	40.4	40.5	41.6
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		42.2	40.0	40.0	40.2	42.0
pH	----	E108/WP	0.10	pH units		7.54	7.67	7.60	7.70	7.71
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		75.0	67.7	66.7	63.7	74.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.7	1.0	<1.0	2.0	6.2
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0670	0.0222	0.0436	0.0090	0.0122
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.78	1.76	1.77	1.87	1.76
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.118	0.0125	0.0521	<0.0050	0.0490
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.122	0.0125	0.0547	<0.0051	0.0490
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0039	<0.0010	0.0026	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0497	0.0145	0.0248	0.0178	0.0304
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		4.04	3.93	3.99	3.99	3.93
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0014	0.0017	0.0013	0.0016	0.0016
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0013	0.0016	0.0011	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0015	0.0016	0.0013	0.0012	0.0014

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-03-B	PL-04	PL-04-B	PL-05	PL-05-B
					Client sampling date / time	05-Aug-2024 13:10	05-Aug-2024 11:40	05-Aug-2024 11:50	05-Aug-2024 10:45	05-Aug-2024 11:00
						WP2419024-006	WP2419024-007	WP2419024-008	WP2419024-009	WP2419024-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		14.2	15.0	13.7	16.2	13.8
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.239	0.0542	0.126	0.0707	0.276
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00021	0.00020	0.00020	0.00019	0.00019
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00700	0.00381	0.00446	0.00402	0.00514
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0105	0.00878	0.00924	0.00898	0.0114
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000093	<0.0000050	<0.0000050	<0.0000050	0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.2	11.5	11.5	11.5	12.0
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000030	<0.000010	0.000012	<0.000010	0.000033
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00046	0.00019	0.00027	0.00023	0.00055
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00055
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00014	<0.00010	<0.00010	<0.00010	0.00015
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00144	0.00130	0.00136	0.00136	0.00157
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.300	0.068	0.130	0.080	0.291
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000127	<0.000050	<0.000050	<0.000050	0.000130
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0026	0.0024	0.0025	0.0025	0.0029
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.86	2.74	2.73	2.78	2.93
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0593	0.00281	0.00649	0.00500	0.0374
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000230	0.000193	0.000204	0.000192	0.000246
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00135	0.00094	0.00103	0.00103	0.00142
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.046	<0.030	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.06	0.982	1.01	1.01	1.08
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00232	0.00190	0.00194	0.00175	0.00237
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000113	0.000057	0.000116	Not Detected	Not Detected
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.76	1.62	2.06	1.71	2.88

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-03-B	PL-04	PL-04-B	PL-05	PL-05-B
					Client sampling date / time	05-Aug-2024 13:10	05-Aug-2024 11:40	05-Aug-2024 11:50	05-Aug-2024 10:45	05-Aug-2024 11:00
						WP2419024-006	WP2419024-007	WP2419024-008	WP2419024-009	WP2419024-010
						Result	Result	Result	Result	Result
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.13	2.05	2.07	2.11	2.10
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0274	0.0264	0.0264	0.0265	0.0275
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.54	1.61	1.64	1.64	1.67
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	Not Detected	<0.00020	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00927	0.00171	0.00392	0.00209	0.0109
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000102	0.000094	0.000094	0.000092	0.000106
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00080	<0.00050	0.00055	<0.00050	0.00090
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0033	<0.0030	<0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00026	<0.00020	0.00022	0.00022	0.00031
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0399	0.0258	0.0326	0.0280	0.0522
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00022	0.00016	0.00021	0.00018	0.00018
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00654	0.00369	0.00468	0.00383	0.00453
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00911	0.00888	0.00881	0.00857	0.00933
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000026	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000134	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.8	11.5	11.5	11.5	11.8
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.000013	<0.000010	<0.000010	<0.000010	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00017	0.00016	0.00017	0.00014	0.00017
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00133	0.00121	0.00128	0.00127	0.00123
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.069	0.043	0.055	0.042	0.061

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	PL-03-B	PL-04	PL-04-B	PL-05	PL-05-B
					Client sampling date / time	05-Aug-2024 13:10	05-Aug-2024 11:40	05-Aug-2024 11:50	05-Aug-2024 10:45	05-Aug-2024 11:00
						WP2419024-006	WP2419024-007	WP2419024-008	WP2419024-009	WP2419024-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0017	0.0017	0.0019	0.0015
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.89	2.92	2.83	2.87	2.94
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0393	0.00071	0.00184	0.00081	0.00354
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000268	0.000187	0.000232	0.000196	0.000237
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00109	0.00084	0.00100	0.00090	0.00106
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		0.032	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	Not Detected	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.987	0.960	0.959	0.963	0.984
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00198	0.00172	0.00176	0.00156	0.00197
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000114	0.000078	0.000117	0.000100	0.000059
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.37	1.50	1.96	1.58	2.37
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	Not Detected	<0.000010	<0.000010	0.000012
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.16	1.99	2.02	2.04	1.99
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0273	0.0253	0.0252	0.0262	0.0271
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.58	1.62	1.51	1.67	1.56
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.000014	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00095	0.00070	0.00081	0.00075	0.00160
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	Not Detected	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000092	0.000091	0.000084	0.000090	0.000086
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2419024**	Page	: 1 of 38
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Aug-2024 10:15
PO	: PPR-022-3	Issue Date	: 16-Aug-2024 10:21
C-O-C number	: ----		
Sampler	: CB/AP/EM/JM		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-01	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-01-B	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-02	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-02-B	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-03	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-03-B	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-04	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-04-B	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-05	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-05-B	E298	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-01	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-01-B	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-02	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-02-B	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-03	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-03-B	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
PL-04	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
PL-04-B	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
PL-05	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
PL-05-B	E235.Cl-L	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-01	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-01-B	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-02	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-02-B	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-03	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-03-B	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-04	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-04-B	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-05	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-05-B	E235.NO3-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-01	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-01-B	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-02	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-02-B	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-03	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-03-B	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-04	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-04-B	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-05	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
PL-05-B	E235.NO2-L	05-Aug-2024	07-Aug-2024	3 days	2 days	✓	07-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
PL-01	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
PL-01-B	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
PL-02	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-02-B	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-03	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-03-B	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-04	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-04-B	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-05	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-05-B	E235.SO4	05-Aug-2024	07-Aug-2024	28 days	2 days	✓	07-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-01	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-01-B	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-02	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-02-B	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-03	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-03-B	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-04	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-04-B	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-05	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-05-B	E372-U	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-01	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01-B	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02-B	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03-B	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04-B	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05-B	E339-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01-B	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02-B	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03-B	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04-B	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05-B	E333-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01-B	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02-B	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03-B	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04-B	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-05	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-05-B	E336-L	05-Aug-2024	09-Aug-2024	14 days	4 days	✓	09-Aug-2024	14 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-01	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-01-B	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-02	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-02-B	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-03	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-03-B	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-04	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-04-B	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-05	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-05-B	E421.Cr-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-01	E509	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-01-B	E509	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-02	E509	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-02-B	E509	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-03	E509	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-03-B	E509	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-04	E509	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-04-B	E509	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-05	E509	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-05-B	E509	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-01	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-01-B	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-02	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-02-B	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-03	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-03-B	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-04	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-04-B	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-05	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-05-B	E421	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-01	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-01-B	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-02	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-02-B	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-03	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-03-B	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-04	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-04-B	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-05	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
PL-05-B	E421.P-L	05-Aug-2024	14-Aug-2024	180 days	9 days	✓	14-Aug-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-01	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-01-B	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-02	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-02-B	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-03	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-03-B	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-04	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-04-B	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-05	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid)										
PL-05-B	EF001	05-Aug-2024	----	----	----		09-Aug-2024	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
PL-01	E358-L	05-Aug-2024	09-Aug-2024	28 days	4 days	✓	09-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
PL-01-B	E358-L	05-Aug-2024	09-Aug-2024	28 days	4 days	✓	09-Aug-2024	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-02	E358-L	05-Aug-2024	09-Aug-2024	28 days	4 days	✓	09-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-02-B	E358-L	05-Aug-2024	09-Aug-2024	28 days	4 days	✓	09-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-03	E358-L	05-Aug-2024	09-Aug-2024	28 days	4 days	✓	09-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-03-B	E358-L	05-Aug-2024	09-Aug-2024	28 days	4 days	✓	09-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-04	E358-L	05-Aug-2024	09-Aug-2024	28 days	4 days	✓	09-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-04-B	E358-L	05-Aug-2024	12-Aug-2024	28 days	7 days	✓	12-Aug-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-05	E358-L	05-Aug-2024	12-Aug-2024	28 days	7 days	✓	12-Aug-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-05-B	E358-L	05-Aug-2024	12-Aug-2024	28 days	7 days	✓	12-Aug-2024	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-01	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE PL-01-B	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-02	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-02-B	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-03	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-03-B	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-04	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-04-B	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-05	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-05-B	E283	05-Aug-2024	10-Aug-2024	14 days	5 days	✓	13-Aug-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE PL-01	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-01-B	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-02	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-02-B	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-03	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-03-B	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-04	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-04-B	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-05	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE PL-05-B	E290	05-Aug-2024	08-Aug-2024	14 days	3 days	✓	08-Aug-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-01	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-01-B	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-02	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-02-B	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-03	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-03-B	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-04	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-04-B	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE PL-05	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-05-B	E100	05-Aug-2024	08-Aug-2024	28 days	3 days	✓	08-Aug-2024	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE PL-01	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	75 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-01-B	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	75 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-02	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	76 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	81 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-02-B	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	76 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	81 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-03	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	77 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	82 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-03-B	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	77 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	82 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-04	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	78 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	83 hrs	× EHTR-FM

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE PL-04-B	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	78 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	83 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-05	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	79 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	84 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-05-B	E108	05-Aug-2024	08-Aug-2024	0.25 hrs	79 hrs	× EHTR-FM	08-Aug-2024	0.25 hrs	84 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-01	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-01-B	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-02	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-02-B	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-03	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-03-B	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-04	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-04-B	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-05	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-05-B	E162-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-01	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-01-B	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-02	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-02-B	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-03	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-03-B	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-04	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-04-B	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-05	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-05-B	E160-L	05-Aug-2024	----	----	----		08-Aug-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-01	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-01-B	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-02	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-02-B	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-03	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-03-B	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-04	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-04-B	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-05	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-05-B	E420.Cr-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-01	E508	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-01-B	E508	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-02	E508	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-02-B	E508	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-03	E508	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-03-B	E508	05-Aug-2024	13-Aug-2024	28 days	8 days	✓	13-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-04	E508	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-04-B	E508	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-05	E508	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-05-B	E508	05-Aug-2024	14-Aug-2024	28 days	9 days	✓	14-Aug-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-01	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-01-B	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-02	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-02-B	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-03	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-03-B	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-04	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-04-B	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-05	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-05-B	E420	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-01	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-01-B	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-02	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-02-B	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-03	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-03-B	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-04	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-04-B	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-05	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-05-B	E420.P-L	05-Aug-2024	12-Aug-2024	180 days	7 days	✓	12-Aug-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1588953	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1586557	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1592472	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1584637	1	16	6.2	5.0	✓
Conductivity in Water	E100	1586555	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1595905	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1592808	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1595907	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1587259	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1595906	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1587970	2	18	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1584635	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1584636	1	16	6.2	5.0	✓
pH by Meter	E108	1586556	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1584634	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1584436	2	25	8.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1590972	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1587971	2	22	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1592807	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1590974	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594606	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1590973	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1584648	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1587969	2	18	11.1	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1588953	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1586557	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1592472	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1584637	1	16	6.2	5.0	✓
Conductivity in Water	E100	1586555	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1595905	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1592808	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1595907	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1587259	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1595906	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1587970	2	18	11.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1584635	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1584636	1	16	6.2	5.0	✓
pH by Meter	E108	1586556	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1584634	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1584436	2	25	8.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1590972	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1587971	2	22	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1592807	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1590974	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594606	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1590973	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1584648	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1587969	2	18	11.1	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1588953	1	18	5.5	5.0	✓
Alkalinity Species by Titration	E290	1586557	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1592472	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1584637	1	16	6.2	5.0	✓
Conductivity in Water	E100	1586555	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1595905	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1592808	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1595907	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1587259	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1595906	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1587970	2	18	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1584635	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1584636	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1584634	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1584436	2	25	8.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1590972	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1587971	2	22	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1592807	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1590974	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594606	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1590973	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1584648	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1587969	2	18	11.1	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1592472	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1584637	1	16	6.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1595905	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1592808	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1595907	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1587259	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1595906	1	13	7.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1587970	2	18	11.1	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1584635	1	16	6.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1584636	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1584634	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1590972	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1587971	2	22	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1592807	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1590974	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594606	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1590973	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1587969	2	18	11.1	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2419024**	Page	: 1 of 20
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 07-Aug-2024 10:15
PO	: PPR-022-3	Date Analysis Commenced	: 07-Aug-2024
C-O-C number	: ----	Issue Date	: 16-Aug-2024 10:23
Sampler	: CB/AP/EM/JM		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1584436)											
WP2418981-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	1410	1420	1.17%	20%	----
Physical Tests (QC Lot: 1584648)											
WP2419020-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	8.7	9.1	0.4	Diff <2x LOR	----
Physical Tests (QC Lot: 1584652)											
WP2419024-006	PL-03-B	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	75.0	77.0	2.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1586555)											
WP2419024-001	PL-01	Conductivity	----	E100	1.0	µS/cm	93.5	96.1	2.74%	10%	----
Physical Tests (QC Lot: 1586556)											
WP2419024-001	PL-01	pH	----	E108	0.10	pH units	7.66	7.63	0.392%	4%	----
Physical Tests (QC Lot: 1586557)											
WP2419024-001	PL-01	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.8	34.3	1.47%	20%	----
Physical Tests (QC Lot: 1588953)											
WP2419020-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	2.8	0.8	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584634)											
WP2419020-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584635)											
WP2419020-003	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584636)											
WP2419020-003	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1584637)											
WP2419020-003	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1592472)											
WP2419024-010	PL-05-B	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0122	0.0106	0.0016	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1594606)											
WP2419020-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0504	0.0492	2.33%	20%	----
Cyanides (QC Lot: 1587969)											
WP2419020-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0018	0.0018	0.00001	Diff <2x LOR	----
Cyanides (QC Lot: 1587970)											
WP2419020-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	0.0019	0.0018	0.00003	Diff <2x LOR	----
Cyanides (QC Lot: 1587971)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1587971) - continued											
WP2419020-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 1587972)											
WP2419024-008	PL-04-B	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0011	0.0012	0.0001	Diff <2x LOR	----
Cyanides (QC Lot: 1587975)											
WP2419024-008	PL-04-B	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0013	0.0013	0.00002	Diff <2x LOR	----
Cyanides (QC Lot: 1587976)											
WP2419024-008	PL-04-B	Cyanide, free	----	E339-L	0.0010	mg/L	0.0013	0.0014	0.0002	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1587259)											
WP2419020-007	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	25.6	26.6	3.96%	20%	----
Organic / Inorganic Carbon (QC Lot: 1590439)											
WP2419024-008	PL-04-B	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	13.7	13.7	0.210%	20%	----
Total Metals (QC Lot: 1590972)											
WP2419020-004	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00058	0.00058	0.000003	Diff <2x LOR	----
Total Metals (QC Lot: 1590973)											
WP2419020-004	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.037	0.041	0.004	Diff <2x LOR	----
Total Metals (QC Lot: 1590974)											
WP2419020-004	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0887	0.0970	8.89%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00368	0.00365	0.897%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00850	0.00857	0.755%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	0.0000067	0.0000017	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	19.5	18.7	4.03%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	0.000011	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00058	0.00058	0.000003	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00022	0.00021	0.000004	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00061	0.00060	0.000009	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	1.57	1.57	0.133%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000056	0.000059	0.000004	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0031	0.0029	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.20	4.16	0.880%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1590974) - continued											
WP2419020-004	Anonymous	Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0236	0.0236	0.368%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000326	0.000339	0.000013	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00072	0.00070	0.00002	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.12	1.11	0.444%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00226	0.00218	3.70%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000085	0.000169	0.000084	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	7.18	7.22	0.572%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.08	2.02	3.15%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0407	0.0411	1.12%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	0.81	0.74	0.07	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00459	0.00493	7.26%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000195	0.000189	3.08%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00121	0.00124	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00024	0.00023	0.000010	Diff <2x LOR	----
Total Metals (QC Lot: 1592807)											
WP2418437-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1594937)											
WP2418781-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1592808)											
WP2418529-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1595612)											
WP2418656-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000072	0.0000066	0.0000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1595905)											
WP2419020-007	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00037	0.00037	0.000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1595906)											
WP2419020-007	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1595907)											
WP2419020-007	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0637	0.0643	0.902%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00380	0.00384	1.09%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00943	0.00947	0.429%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	11.5	11.5	0.233%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00014	0.00015	0.000009	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00100	0.00098	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.490	0.488	0.423%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000143	0.000142	0.0000009	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0023	0.0022	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	3.42	3.39	0.861%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0439	0.0447	1.98%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000227	0.000242	0.000015	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00071	0.00068	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.844	0.856	1.34%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00199	0.00213	6.48%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000140	0.000060	0.000080	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.68	1.69	0.910%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.48	1.55	4.70%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0266	0.0262	1.43%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.58	0.53	0.05	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00286	0.00285	0.000007	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1595907) - continued											
WP2419020-007	Anonymous	Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000184	0.000179	2.48%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00084	0.00085	0.00001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0013	0.0013	0.00002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00042	0.00044	0.00001	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1584436)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1584648)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1584652)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1586555)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1586557)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1588953)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1584634)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1584635)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1584636)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1584637)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1592472)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1594606)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1587969)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1587970)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1587971)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1587972)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1587975)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1587975) - continued						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1587976)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1587259)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1590439)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1590972)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1590973)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1590974)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1590974) - continued						
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1592807)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1594937)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1592808)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1595612)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1595905)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1595906)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1595907)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1595907) - continued						
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1584436)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.8	85.0	115	----
Physical Tests (QCLot: 1584648)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.7	85.0	115	----
Physical Tests (QCLot: 1584652)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	97.9	85.0	115	----
Physical Tests (QCLot: 1586555)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1586556)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1586557)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1588953)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	94.7	85.0	115	----
Anions and Nutrients (QCLot: 1584634)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 1584635)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1584636)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 1584637)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1592472)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.6	85.0	115	----
Anions and Nutrients (QCLot: 1594606)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.6	80.0	120	----
Cyanides (QCLot: 1587969)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	94.8	80.0	120	----
Cyanides (QCLot: 1587970)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.8	80.0	120	----
Cyanides (QCLot: 1587971)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1587971) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	84.8	80.0	120	----
Cyanides (QCLot: 1587972)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	82.8	80.0	120	----
Cyanides (QCLot: 1587975)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	95.4	80.0	120	----
Cyanides (QCLot: 1587976)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1587259)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1590439)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Metals (QCLot: 1590972)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
Total Metals (QCLot: 1590973)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	101	80.0	120	----
Total Metals (QCLot: 1590974)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	100	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.3	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	99.8	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.5	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	111	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1590974) - continued									
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.4	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	101	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	99.5	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	97.1	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	98.9	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.7	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.1	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	95.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.9	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.1	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.9	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.3	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	107	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	94.2	80.0	120	----
Total Metals (QCLot: 1592807)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.7	80.0	120	----
Total Metals (QCLot: 1594937)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	99.0	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	98.6	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.2	80.0	120	----
Dissolved Metals (QCLot: 1595905)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.6	80.0	120	----
Dissolved Metals (QCLot: 1595907)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.9	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.0	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1595907) - continued									
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	105	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	95.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	99.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	96.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	97.6	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.5	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.5	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	98.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	97.2	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	93.7	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	89.2	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.6	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.4	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.5	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	98.3	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.0	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.5	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	98.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	96.9	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1584634)										
WP2419020-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	108 mg/L	100 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1584635)										
WP2419020-003	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.71 mg/L	2.5 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1584636)										
WP2419020-003	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.514 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1584637)										
WP2419020-003	Anonymous	Chloride	16887-00-6	E235.Cl-L	107 mg/L	100 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1592472)										
WP2419024-010	PL-05-B	Ammonia, total (as N)	7664-41-7	E298	0.0987 mg/L	0.1 mg/L	98.7	75.0	125	----
Anions and Nutrients (QCLot: 1594606)										
WP2419020-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.190 mg/L	0.25 mg/L	76.0	70.0	130	----
Cyanides (QCLot: 1587969)										
WP2419020-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.110 mg/L	0.125 mg/L	87.7	75.0	125	----
Cyanides (QCLot: 1587970)										
WP2419020-001	Anonymous	Cyanide, free	----	E339-L	0.118 mg/L	0.125 mg/L	94.2	75.0	125	----
Cyanides (QCLot: 1587971)										
WP2419020-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	2.18 mg/L	2.5 mg/L	87.4	75.0	125	----
Cyanides (QCLot: 1587972)										
WP2419024-008	PL-04-B	Cyanide, strong acid dissociable (Total)	----	E333-L	0.196 mg/L	0.25 mg/L	78.5	75.0	125	----
Cyanides (QCLot: 1587975)										
WP2419024-008	PL-04-B	Cyanide, weak acid dissociable	----	E336-L	0.111 mg/L	0.125 mg/L	88.9	75.0	125	----
Cyanides (QCLot: 1587976)										
WP2419024-008	PL-04-B	Cyanide, free	----	E339-L	0.116 mg/L	0.125 mg/L	92.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1587259)										
WP2419020-008	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1590439)										
WP2419024-009	PL-05	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1590972)										
WP2419020-004	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0406 mg/L	0.04 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1590973)										
WP2419020-004	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	10.4 mg/L	10 mg/L	104	70.0	130	----
Total Metals (QCLot: 1590974)										
WP2419020-004	Anonymous	Aluminum, total	7429-90-5	E420	0.199 mg/L	0.2 mg/L	99.3	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, total	7440-39-3	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0437 mg/L	0.04 mg/L	109	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Boron, total	7440-42-8	E420	0.113 mg/L	0.1 mg/L	113	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, total	7440-50-8	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, total	7439-89-6	E420	1.99 mg/L	2 mg/L	99.6	70.0	130	----
		Lead, total	7439-92-1	E420	0.0195 mg/L	0.02 mg/L	97.6	70.0	130	----
		Lithium, total	7439-93-2	E420	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.00 mg/L	4 mg/L	100.0	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, total	7440-21-3	E420	9.96 mg/L	10 mg/L	99.6	70.0	130	----
		Silver, total	7440-22-4	E420	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00384 mg/L	0.004 mg/L	95.9	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Tin, total	7440-31-5	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, total	7440-66-6	E420	0.396 mg/L	0.4 mg/L	99.0	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0389 mg/L	0.04 mg/L	97.3	70.0	130	----
Total Metals (QCLot: 1592807)										
WP2418759-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000990 mg/L	0 mg/L	99.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1594937)										
WP2418781-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000895 mg/L	0 mg/L	89.5	70.0	130	----
Dissolved Metals (QCLot: 1592808)										
WP2418529-002	Anonymous	Mercury, dissolved	7439-97-6	E509	----	0 mg/L		70.0	130	----
Dissolved Metals (QCLot: 1595612)										
WP2418656-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1595905)										
WP2419020-007	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1595906)										
WP2419020-007	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	10.7 mg/L	10 mg/L	107	70.0	130	----
Dissolved Metals (QCLot: 1595907)										
WP2419020-007	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.199 mg/L	0.2 mg/L	99.7	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0398 mg/L	0.04 mg/L	99.4	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00990 mg/L	0.01 mg/L	99.0	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.100 mg/L	0.1 mg/L	99.7	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00432 mg/L	0.004 mg/L	108	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0959 mg/L	0.1 mg/L	95.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.7 mg/L	10 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.13 mg/L	4 mg/L	103	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0445 mg/L	0.04 mg/L	111	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.58 mg/L	10 mg/L	95.8	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00396 mg/L	0.004 mg/L	99.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.08 mg/L	2 mg/L	104	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.7 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00399 mg/L	0.004 mg/L	99.7	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1595907) - continued										
WP2419020-007	Anonymous	Thorium, dissolved	7440-29-1	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00398 mg/L	0.004 mg/L	99.4	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.434 mg/L	0.4 mg/L	108	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only): | **ALS Contact:** Judy Dalmaijer | **Sampler:** CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	PL-01	5-Aug-24	14:45	Water			X		6.95	24.4	96.9
	PL-01-B	5-Aug-24	14:55	Water			X		6.42	22.2	88.2
	PL-02	5-Aug-24	14:00	Water			X		7.07	24.1	90.2
	PL-02-B	5-Aug-24	14:10	Water			X		6.68	22.6	88.4
	PL-03	5-Aug-24	13:05	Water			X		7.17	23.1	87.1
	PL-03-B	5-Aug-24	13:10	Water			X		6.41	20	83.3
	PL-04	5-Aug-24	11:40	Water			X		7.19	23.2	85.2
	PL-04-B	5-Aug-24	11:50	Water			X		7.03	22.8	84.7
	PL-05	5-Aug-24	10:45	Water			X		7.32	23	85.3
10	PL-05-B	5-Aug-24	11:00	Water			X		6.47	21	99.3

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	August 6 2024	Time: 9:00	Received by: GK	Date: Aug 07, 2024	Time: 10:15am	Received by:	Time:

Temperature = 17.4°C

Environmental Division
Winnipeg
Work Order Reference
WP2419024

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross - Great Bear Resources					**COC receipt info complete**	☑
Express TAT?	(no)	Yes: same day	1 day	2 day	3 days	4 day
Short hold time?	~~yes~~ (no)	Yes: <24 hrs	1 day	(2 days)	3 days	4 days
Matrix	(Water)	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:	88		
Green/white	10x500, 2x250	Orange/black	
Purple/white	20x100ml	Dark blue/white	
Red/white	28x125	Black/white	
Dark green/white	2x60, 8x140	Brown/white	
Grey/white		Pink/white	
Yellow/black	20x40ml	Beige/white	
Light blue/white		Other (specify)	7x125 Clear HDPE

Comments:
Received with Ice Packs.

Sample Login

Receipt Window	✓/X	N/A	**Bottles**	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	**Yes**	**No**
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2419247**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 08-Aug-2024 10:31
PO	: PPR-022-3	Date Analysis Commenced	: 09-Aug-2024
C-O-C number	: ----	Issue Date	: 19-Aug-2024 16:45
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-DS	CR-FDP	DUP-02	BLANK-02	CR-REF
					Client sampling date / time	06-Aug-2024 11:15	06-Aug-2024 11:45	06-Aug-2024 11:50	06-Aug-2024 11:55	06-Aug-2024 12:50
						WP2419247-001	WP2419247-002	WP2419247-003	WP2419247-004	WP2419247-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.45	7.62	7.62	----	7.66
Temperature, field	----	EF001/WP	0.10	°C		23.8	23.9	23.9	----	24.2
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.9	33.2	33.0	<1.0	32.7
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.9	33.2	33.0	<1.0	32.7
Conductivity	----	E100/WP	1.0	µS/cm		97.5	95.3	96.2	Not Detected	93.1
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		40.9	40.6	40.6	<0.50	39.9
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		43.8	42.5	42.4	<0.50	42.4
pH	----	E108/WP	0.10	pH units		7.54	7.57	7.58	5.33	7.57
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		75.8	70.1	73.4	<3.0	76.4
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.2	3.0	4.0	<1.0	6.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0075	0.0083	0.0152	0.0103	<0.0050
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.84	3.01	3.00	Not Detected	2.88
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0072	0.0056	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0072	0.0056	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0309	0.0309	0.0303	<0.0020	0.0361
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		6.10	6.42	6.46	<0.30	6.38
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0011	0.0010	0.0011	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-DS	CR-FDP	DUP-02	BLANK-02	CR-REF
					Client sampling date / time	06-Aug-2024 11:15	06-Aug-2024 11:45	06-Aug-2024 11:50	06-Aug-2024 11:55	06-Aug-2024 12:50
						WP2419247-001	WP2419247-002	WP2419247-003	WP2419247-004	WP2419247-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.9	13.9	14.1	<0.50	14.6
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.152	0.133	0.137	<0.0030	0.136
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00028	0.00028	0.00029	Not Detected	0.00029
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0110	0.0120	0.0118	<0.00010	0.0147
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00919	0.00870	0.00880	Not Detected	0.00840
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	Not Detected	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	Not Detected	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.011	<0.010	<0.010	Not Detected	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000072	Not Detected	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.6	12.3	12.2	<0.050	12.3
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000017	0.000017	0.000017	Not Detected	0.000018
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00034	0.00036	0.00032	<0.00010	0.00040
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	Not Detected	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00011	0.00011	0.00011	Not Detected	0.00014
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00145	0.00147	0.00149	Not Detected	0.00147
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.185	0.149	0.153	Not Detected	0.179
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000087	0.000072	0.000077	Not Detected	0.000108
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0025	0.0021	0.0022	<0.0010	0.0022
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.01	2.87	2.89	<0.0050	2.84
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0123	0.0113	0.0108	Not Detected	0.0134
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000234	0.000249	0.000237	Not Detected	0.000234
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00131	0.00131	0.00131	Not Detected	0.00141
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.033	0.034	<0.030	<0.030	0.032
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.03	1.06	1.07	Not Detected	1.06
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00201	0.00199	0.00201	Not Detected	0.00212

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-DS	CR-FDP	DUP-02	BLANK-02	CR-REF
					Client sampling date / time	06-Aug-2024 11:15	06-Aug-2024 11:45	06-Aug-2024 11:50	06-Aug-2024 11:55	06-Aug-2024 12:50
						WP2419247-001	WP2419247-002	WP2419247-003	WP2419247-004	WP2419247-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	0.000092	0.000092	Not Detected	0.000109
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.00	2.07	2.09	<0.10	2.15
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.73	2.79	2.72	Not Detected	2.71
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0328	0.0335	0.0337	Not Detected	0.0324
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.38	2.46	2.37	Not Detected	2.36
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00630	0.00559	0.00548	Not Detected	0.00705
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000135	0.000121	0.000122	Not Detected	0.000137
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00086	0.00081	0.00082	<0.00050	0.00082
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	0.0199	<0.0030
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00023	0.00022	0.00021	Not Detected	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0294	0.0223	0.0234	<0.0010	0.0228
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00027	0.00027	0.00027	Not Detected	0.00027
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.0102	0.0113	0.0112	Not Detected	0.0133
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00838	0.00799	0.00812	Not Detected	0.00781
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	Not Detected	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	Not Detected	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	Not Detected	Not Detected
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.0	11.9	12.0	Not Detected	11.8
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	<0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00016	0.00012	<0.00010	<0.00010	0.00015
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	Not Detected	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	<0.00010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-DS	CR-FDP	DUP-02	BLANK-02	CR-REF
					Client sampling date / time	06-Aug-2024 11:15	06-Aug-2024 11:45	06-Aug-2024 11:50	06-Aug-2024 11:55	06-Aug-2024 12:50
						WP2419247-001	WP2419247-002	WP2419247-003	WP2419247-004	WP2419247-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00112	0.00120	0.00115	Not Detected	0.00118
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.062	0.039	0.039	Not Detected	0.042
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	Not Detected	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0015	0.0014	0.0014	Not Detected	0.0015
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.65	2.65	2.58	Not Detected	2.53
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00230	0.00101	0.00096	<0.00010	0.00302
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000220	0.000205	0.000219	Not Detected	0.000219
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00098	0.00098	0.00104	Not Detected	0.00113
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	Not Detected	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.930	0.955	0.954	Not Detected	0.942
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00180	0.00184	0.00180	Not Detected	0.00190
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000101	0.000087	0.000107	Not Detected	0.000086
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.54	1.60	1.58	Not Detected	1.68
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.35	2.48	2.42	<0.050	2.48
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0307	0.0311	0.0308	Not Detected	0.0302
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.82	1.92	2.01	Not Detected	2.14
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	<0.00020
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	<0.00010	<0.00010	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00100	0.00079	0.00076	Not Detected	0.00068
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000116	0.000109	0.000115	Not Detected	0.000127
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00059	0.00054	0.00054	<0.00050	0.00055
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	0.0019	<0.0010	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	Not Detected	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-DS	CR-FDP	DUP-02	BLANK-02	CR-REF
					Client sampling date / time	06-Aug-2024 11:15	06-Aug-2024 11:45	06-Aug-2024 11:50	06-Aug-2024 11:55	06-Aug-2024 12:50
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2419247-001	WP2419247-002	WP2419247-003	WP2419247-004	WP2419247-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2419247**	Page	: 1 of 24
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 08-Aug-2024 10:31
PO	: PPR-022-3	Issue Date	: 19-Aug-2024 16:42
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK-02	E298	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-DS	E298	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-02	E298	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE BLANK-02	E235.Cl-L	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-DS	E235.Cl-L	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-FDP	E235.Cl-L	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-REF	E235.Cl-L	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DUP-02	E235.Cl-L	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE BLANK-02	E235.NO3-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-DS	E235.NO3-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-FDP	E235.NO3-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-REF	E235.NO3-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DUP-02	E235.NO3-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE BLANK-02	E235.NO2-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-DS	E235.NO2-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-FDP	E235.NO2-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-REF	E235.NO2-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DUP-02	E235.NO2-L	06-Aug-2024	09-Aug-2024	3 days	3 days	✓	09-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE BLANK-02	E235.SO4	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE CR-DS	E235.SO4	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE CR-FDP	E235.SO4	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE CR-REF	E235.SO4	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE DUP-02	E235.SO4	06-Aug-2024	09-Aug-2024	28 days	3 days	✓	09-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
BLANK-02	E372-U	06-Aug-2024	13-Aug-2024	28 days	7 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-DS	E372-U	06-Aug-2024	13-Aug-2024	28 days	7 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-FDP	E372-U	06-Aug-2024	13-Aug-2024	28 days	7 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
CR-REF	E372-U	06-Aug-2024	13-Aug-2024	28 days	7 days	✓	14-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-02	E372-U	06-Aug-2024	13-Aug-2024	28 days	7 days	✓	14-Aug-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide)										
CR-REF	E339-L	06-Aug-2024	14-Aug-2024	24 hrs	189 hrs	× EHTR	14-Aug-2024	24 hrs	189 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide)										
BLANK-02	E339-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide)										
CR-FDP	E339-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide)										
DUP-02	E339-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-DS	E339-L	06-Aug-2024	14-Aug-2024	24 hrs	191 hrs	× EHTR	14-Aug-2024	24 hrs	191 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-REF	E333-L	06-Aug-2024	14-Aug-2024	24 hrs	189 hrs	× EHTR	14-Aug-2024	24 hrs	189 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) BLANK-02	E333-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-FDP	E333-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) DUP-02	E333-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-DS	E333-L	06-Aug-2024	14-Aug-2024	24 hrs	191 hrs	× EHTR	14-Aug-2024	24 hrs	191 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-REF	E336-L	06-Aug-2024	14-Aug-2024	24 hrs	189 hrs	× EHTR	14-Aug-2024	24 hrs	189 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) BLANK-02	E336-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-FDP	E336-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide)										
DUP-02	E336-L	06-Aug-2024	14-Aug-2024	24 hrs	190 hrs	× EHTR	14-Aug-2024	24 hrs	190 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide)										
CR-DS	E336-L	06-Aug-2024	14-Aug-2024	24 hrs	191 hrs	× EHTR	14-Aug-2024	24 hrs	191 hrs	× EHTR
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
BLANK-02	E421.Cr-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.Cr-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DUP-02	E421.Cr-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK-02	E509	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
CR-DS	E509	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DUP-02	E509	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BLANK-02	E421	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP-02	E421	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK-02	E421.P-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-02	E421.P-L	06-Aug-2024	16-Aug-2024	180 days	10 days	✓	16-Aug-2024	180 days	10 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) CR-DS	EF001	06-Aug-2024	----	----	----		09-Aug-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) CR-FDP	EF001	06-Aug-2024	----	----	----		09-Aug-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) CR-REF	EF001	06-Aug-2024	----	----	----		09-Aug-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) DUP-02	EF001	06-Aug-2024	----	----	----		09-Aug-2024	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-DS	E358-L	06-Aug-2024	14-Aug-2024	28 days	8 days	✓	14-Aug-2024	28 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass total (sulfuric acid)										
BLANK-02	E358-L	06-Aug-2024	14-Aug-2024	3 days	7 days	× EHT	14-Aug-2024	3 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass total (sulfuric acid)										
CR-FDP	E358-L	06-Aug-2024	14-Aug-2024	3 days	7 days	× EHT	14-Aug-2024	3 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass total (sulfuric acid)										
CR-REF	E358-L	06-Aug-2024	14-Aug-2024	3 days	7 days	× EHT	14-Aug-2024	3 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass total (sulfuric acid)										
DUP-02	E358-L	06-Aug-2024	14-Aug-2024	3 days	7 days	× EHT	14-Aug-2024	3 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
BLANK-02	E283	06-Aug-2024	14-Aug-2024	14 days	8 days	✓	14-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-DS	E283	06-Aug-2024	14-Aug-2024	14 days	8 days	✓	14-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-FDP	E283	06-Aug-2024	14-Aug-2024	14 days	8 days	✓	14-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
CR-REF	E283	06-Aug-2024	14-Aug-2024	14 days	8 days	✓	14-Aug-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DUP-02	E283	06-Aug-2024	14-Aug-2024	14 days	8 days	✓	14-Aug-2024	14 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Alkalinity Species by Titration										
HDPE										
BLANK-02	E290	06-Aug-2024	12-Aug-2024	14 days	6 days	✓	12-Aug-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
CR-DS	E290	06-Aug-2024	12-Aug-2024	14 days	6 days	✓	12-Aug-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
CR-FDP	E290	06-Aug-2024	12-Aug-2024	14 days	6 days	✓	12-Aug-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
CR-REF	E290	06-Aug-2024	12-Aug-2024	14 days	6 days	✓	12-Aug-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
DUP-02	E290	06-Aug-2024	12-Aug-2024	14 days	6 days	✓	12-Aug-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE										
BLANK-02	E100	06-Aug-2024	12-Aug-2024	28 days	6 days	✓	12-Aug-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE										
CR-DS	E100	06-Aug-2024	12-Aug-2024	28 days	6 days	✓	12-Aug-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE										
CR-FDP	E100	06-Aug-2024	12-Aug-2024	28 days	6 days	✓	12-Aug-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE										
CR-REF	E100	06-Aug-2024	12-Aug-2024	28 days	6 days	✓	12-Aug-2024	28 days	6 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE DUP-02	E100	06-Aug-2024	12-Aug-2024	28 days	6 days	✓	12-Aug-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE CR-REF	E108	06-Aug-2024	12-Aug-2024	0.25 hrs	149 hrs	× EHTR-FM	12-Aug-2024	0.25 hrs	149 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE BLANK-02	E108	06-Aug-2024	12-Aug-2024	0.25 hrs	150 hrs	× EHTR-FM	12-Aug-2024	0.25 hrs	150 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-FDP	E108	06-Aug-2024	12-Aug-2024	0.25 hrs	150 hrs	× EHTR-FM	12-Aug-2024	0.25 hrs	150 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DUP-02	E108	06-Aug-2024	12-Aug-2024	0.25 hrs	150 hrs	× EHTR-FM	12-Aug-2024	0.25 hrs	150 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-DS	E108	06-Aug-2024	12-Aug-2024	0.25 hrs	151 hrs	× EHTR-FM	12-Aug-2024	0.25 hrs	151 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE BLANK-02	E162-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-DS	E162-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-FDP	E162-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-REF	E162-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DUP-02	E162-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE BLANK-02	E160-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-DS	E160-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-FDP	E160-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-REF	E160-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE DUP-02	E160-L	06-Aug-2024	----	----	----		12-Aug-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-02	E420.Cr-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-02	E420.Cr-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-02	E508	06-Aug-2024	16-Aug-2024	28 days	10 days	✓	16-Aug-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	06-Aug-2024	16-Aug-2024	28 days	10 days	✓	16-Aug-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	06-Aug-2024	16-Aug-2024	28 days	10 days	✓	16-Aug-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	06-Aug-2024	16-Aug-2024	28 days	10 days	✓	16-Aug-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-02	E508	06-Aug-2024	16-Aug-2024	28 days	10 days	✓	16-Aug-2024	28 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK-02	E420	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-02	E420	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-02	E420.P-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-02	E420.P-L	06-Aug-2024	13-Aug-2024	180 days	7 days	✓	13-Aug-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1594627	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1592350	2	29	6.9	5.0	✓
Ammonia by Fluorescence	E298	1594715	1	15	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1591627	1	10	10.0	5.0	✓
Conductivity in Water	E100	1592349	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1600347	0	9	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1595612	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1600349	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1594629	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1600348	0	11	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1594523	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1591628	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1591629	1	9	11.1	5.0	✓
pH by Meter	E108	1592348	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1591631	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1590367	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1593064	0	5	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1594524	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1600018	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1593061	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594607	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1593060	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1590373	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1594522	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1594627	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1592350	2	29	6.9	5.0	✓
Ammonia by Fluorescence	E298	1594715	1	15	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1591627	1	10	10.0	5.0	✓
Conductivity in Water	E100	1592349	2	9	22.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1600347	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1595612	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1600349	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1594629	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1600348	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1594523	1	13	7.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1591628	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1591629	1	9	11.1	5.0	✓
pH by Meter	E108	1592348	2	20	10.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1591631	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1590367	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1593064	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1594524	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1600018	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1593061	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594607	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1593060	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1590373	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1594522	1	13	7.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1594627	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1592350	2	29	6.9	5.0	✓
Ammonia by Fluorescence	E298	1594715	1	15	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1591627	1	10	10.0	5.0	✓
Conductivity in Water	E100	1592349	2	9	22.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1600347	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1595612	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1600349	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1594629	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1600348	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1594523	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1591628	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1591629	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1591631	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1590367	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1593064	1	5	20.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1594524	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1600018	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1593061	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594607	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1593060	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1590373	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1594522	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1594715	1	15	6.6	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1591627	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1600347	0	9	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1595612	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1600349	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1594629	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1600348	0	11	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1594523	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1591628	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1591629	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1591631	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1593064	0	5	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1594524	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1600018	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1593061	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1594607	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1593060	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1594522	1	13	7.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2419247**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 08-Aug-2024 10:31
PO	: PPR-022-3	Date Analysis Commenced	: 09-Aug-2024
C-O-C number	: ----	Issue Date	: 19-Aug-2024 16:38
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1590367)											
WP2419164-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	496	501	1.00%	20%	----
Physical Tests (QC Lot: 1590373)											
WP2419124-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.7	1.4	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1592348)											
WP2419247-001	CR-DS	pH	----	E108	0.10	pH units	7.54	7.54	0.00%	4%	----
Physical Tests (QC Lot: 1592349)											
WP2419247-001	CR-DS	Conductivity	----	E100	1.0	µS/cm	97.5	95.0	2.60%	10%	----
Physical Tests (QC Lot: 1592350)											
WP2419247-001	CR-DS	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	33.9	33.4	1.48%	20%	----
Physical Tests (QC Lot: 1594627)											
BF2400227-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1597475)											
WP2419442-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	49.6	47.8	3.70%	20%	----
Anions and Nutrients (QC Lot: 1591627)											
WP2419229-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	15.5	15.4	0.968%	20%	----
Anions and Nutrients (QC Lot: 1591628)											
WP2419229-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.243	0.240	1.12%	20%	----
Anions and Nutrients (QC Lot: 1591629)											
WP2419229-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0024	0.0024	0.00003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1591631)											
WP2419229-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	159	159	0.178%	20%	----
Anions and Nutrients (QC Lot: 1594607)											
WP2419167-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0086	0.0076	0.0011	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1594715)											
WP2419266-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0126	0.0115	0.0010	Diff <2x LOR	----
Cyanides (QC Lot: 1594522)											
WP2419224-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1594523)											
WP2419224-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1594524)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1594524) - continued											
WP2419224-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1594629)											
WP2419230-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	5.64	5.50	2.40%	20%	----
Total Metals (QC Lot: 1593060)											
WP2419126-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1593061)											
WP2419126-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0045	0.0044	0.0001	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.0302	0.0305	0.958%	20%	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.114	0.114	0.00410%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0453	0.0450	0.729%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.215	0.213	0.910%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.500	mg/L	399	400	0.290%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000250	0.000249	0.180%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.0359	0.0364	1.60%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00098	0.00099	0.00001	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	1.53	1.54	0.181%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0308	0.0298	3.21%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	55.9	56.7	1.44%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.238	0.239	0.570%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00826	0.00833	0.902%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.0187	0.0186	0.528%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	63.4	62.7	1.02%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.0210	0.0208	0.618%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.00960	0.00936	2.52%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	2.06	2.11	2.52%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	200	202	1.01%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	1.52	1.52	0.206%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1593061) - continued											
WP2419126-001	Anonymous	Sulfur, total	7704-34-9	E420	5.00	mg/L	472	468	0.772%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00136	0.00140	0.00004	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00076	0.00075	0.000010	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000408	0.000408	0.0834%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00315	0.00323	0.00007	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1600018)											
WP2418966-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000416	0.0000412	0.0000004	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1595612)											
WP2418656-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	0.0000072	0.0000066	0.0000006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1600349)											
WP2419355-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00028	0.00030	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00997	0.0103	2.92%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.059	0.060	0.001	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	35.5	36.7	3.45%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00045	0.00042	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0042	0.0045	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	22.6	21.9	3.48%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1600349) - continued											
WP2419355-001	Anonymous	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000278	0.000263	0.000016	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	3.52	3.51	0.269%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00068	0.00067	0.000008	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.058	0.060	0.002	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	165	164	0.310%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.307	0.304	0.838%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	21.3	21.2	0.474%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000574	0.000583	1.53%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1590367)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1590373)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1592349)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1592350)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1594627)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1597475)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1597476)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Anions and Nutrients (QCLot: 1591627)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1591628)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1591629)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1591631)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1594607)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1594715)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1594522)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1594523)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1594524)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1594629)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1594629) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1593060)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1593061)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1593061) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1593064)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1600018)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1595612)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1600347)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1600348)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1600349)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1600349) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1590367)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	93.6	85.0	115	----
Physical Tests (QCLot: 1590373)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	89.1	85.0	115	----
Physical Tests (QCLot: 1592348)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1592349)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.4	90.0	110	----
Physical Tests (QCLot: 1592350)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.1	85.0	115	----
Physical Tests (QCLot: 1594627)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	96.0	85.0	115	----
Physical Tests (QCLot: 1597474)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1597475)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1597476)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Anions and Nutrients (QCLot: 1591627)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.8	90.0	110	----
Anions and Nutrients (QCLot: 1591628)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.7	90.0	110	----
Anions and Nutrients (QCLot: 1591629)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	95.8	90.0	110	----
Anions and Nutrients (QCLot: 1591631)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1594607)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	98.2	80.0	120	----
Anions and Nutrients (QCLot: 1594715)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	94.4	85.0	115	----
Cyanides (QCLot: 1594522)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1594522) - continued									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.2	80.0	120	----
Cyanides (QCLot: 1594523)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.8	80.0	120	----
Cyanides (QCLot: 1594524)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	86.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1594629)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.4	80.0	120	----
Total Metals (QCLot: 1593060)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----
Total Metals (QCLot: 1593061)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	98.8	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	106	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	109	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	111	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.9	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	96.5	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	99.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	98.5	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.4	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.7	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	107	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	107	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	100	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.2	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	102	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	98.9	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	95.2	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1593061) - continued									
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	99.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	97.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	99.9	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	101	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	96.0	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	93.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	106	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.9	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	103	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	105	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	96.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Total Metals (QCLot: 1593064)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	99.5	80.0	120	----
Total Metals (QCLot: 1600018)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	101	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.2	80.0	120	----
Dissolved Metals (QCLot: 1600347)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	90.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	94.3	80.0	120	----
Dissolved Metals (QCLot: 1600349)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	95.1	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.2	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.1	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	99.8	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.8	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	95.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.7	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	90.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1600349) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	89.3	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	88.9	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	87.2	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.5	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	94.3	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	96.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	88.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	94.3	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	93.1	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	88.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	92.6	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	86.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.2	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.7	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	83.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	97.4	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	97.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	93.3	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	94.6	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	97.7	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	93.5	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	90.9	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.0	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1591627)										
WP2419229-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	94.1 mg/L	100 mg/L	94.1	75.0	125	----
Anions and Nutrients (QCLot: 1591628)										
WP2419229-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.35 mg/L	2.5 mg/L	94.1	75.0	125	----
Anions and Nutrients (QCLot: 1591629)										
WP2419229-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.460 mg/L	0.5 mg/L	92.1	75.0	125	----
Anions and Nutrients (QCLot: 1591631)										
WP2419229-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1594607)										
WP2419167-005	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.201 mg/L	0.25 mg/L	80.5	70.0	130	----
Anions and Nutrients (QCLot: 1594715)										
WP2419266-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0975 mg/L	0.1 mg/L	97.5	75.0	125	----
Cyanides (QCLot: 1594522)										
WP2419224-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.115 mg/L	0.125 mg/L	91.8	75.0	125	----
Cyanides (QCLot: 1594523)										
WP2419224-001	Anonymous	Cyanide, free	----	E339-L	0.119 mg/L	0.125 mg/L	95.5	75.0	125	----
Cyanides (QCLot: 1594524)										
WP2419224-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	2.00 mg/L	2.5 mg/L	79.9	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1594629)										
WP2419230-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1593060)										
WP2419126-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	11.3 mg/L	10 mg/L	113	70.0	130	----
Total Metals (QCLot: 1593061)										
WP2419126-001	Anonymous	Aluminum, total	7429-90-5	E420	0.210 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, total	7440-36-0	E420	ND mg/L	----	ND	70.0	130	----
		Arsenic, total	7440-38-2	E420	ND mg/L	----	ND	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0370 mg/L	0.04 mg/L	92.4	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00918 mg/L	0.01 mg/L	91.8	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00364 mg/L	0.004 mg/L	90.9	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1593061) - continued										
WP2419126-001	Anonymous	Cobalt, total	7440-48-4	E420	ND mg/L	----	ND	70.0	130	----
		Copper, total	7440-50-8	E420	0.0186 mg/L	0.02 mg/L	92.9	70.0	130	----
		Iron, total	7439-89-6	E420	2.03 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0187 mg/L	0.02 mg/L	93.5	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0972 mg/L	0.1 mg/L	97.2	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0384 mg/L	0.04 mg/L	95.9	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.3 mg/L	10 mg/L	113	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	----	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0462 mg/L	0.04 mg/L	116	70.0	130	----
		Silicon, total	7440-21-3	E420	10.6 mg/L	10 mg/L	106	70.0	130	----
		Silver, total	7440-22-4	E420	0.00360 mg/L	0.004 mg/L	90.0	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00370 mg/L	0.004 mg/L	92.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, total	7440-31-5	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0438 mg/L	0.04 mg/L	109	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Zinc, total	7440-66-6	E420	0.338 mg/L	0.4 mg/L	84.4	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
Total Metals (QCLot: 1600018)										
WP2418966-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000885 mg/L	0 mg/L	88.5	70.0	130	----
Dissolved Metals (QCLot: 1595612)										
WP2418656-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000101 mg/L	0 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1600349)										
WP2419355-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.198 mg/L	0.2 mg/L	99.3	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0420 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00867 mg/L	0.01 mg/L	86.7	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.099 mg/L	0.1 mg/L	98.6	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00389 mg/L	0.004 mg/L	97.2	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0104 mg/L	0.01 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1600349) - continued										
WP2419355-001	Anonymous	Chromium, dissolved	7440-47-3	E421	0.0373 mg/L	0.04 mg/L	93.2	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0182 mg/L	0.02 mg/L	91.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0176 mg/L	0.02 mg/L	87.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.82 mg/L	2 mg/L	91.0	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0188 mg/L	0.02 mg/L	94.3	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0350 mg/L	0.04 mg/L	87.4	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.5 mg/L	10 mg/L	105	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.93 mg/L	4 mg/L	98.4	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0377 mg/L	0.04 mg/L	94.2	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.54 mg/L	10 mg/L	95.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00371 mg/L	0.004 mg/L	92.7	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00390 mg/L	0.004 mg/L	97.5	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0983 mg/L	0.1 mg/L	98.3	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.374 mg/L	0.4 mg/L	93.4	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0434 mg/L	0.04 mg/L	108	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	CR-DS	6-Aug-24	11:15	Water		X			7.45	23.8	97.9
	CR-FDP	6-Aug-24	11:45	Water		X			7.62	23.9	98.7
	DUP-02	6-Aug-24	11:50	Water		X			7.62	23.9	98.7
	BLANK-02	6-Aug-24	11:55	Water		X					
	CR-REF	6-Aug-24	12:50	Water		X			7.66	24.2	99.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)		
Released by: AP	August 7 2024	Time: 9:00	Received by:	Date: Aug 8	Time: 1031

12°

Environmental Division
Winnipeg
Work Order Reference
WP2419247

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross					**COC receipt info complete**	☐
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other
Total number of bottles/fractions: 45						
Green/white	5x500 2x250		Orange/black			
Purple/white	10x125		Dark blue/white			
Red/white	11x125		Black/white			
Dark green/white	~~2x125~~ 2x125		Brown/white		4x125	
Grey/white			Pink/white			
Yellow/black			Beige/white			
Light blue/white			Other (specify)		2x 125 clear 3x100 black/green 10x40ml yellow	

Comments:

12°, ice packs, cooling initiated

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2419573**	Page	: 1 of 17
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Aug-2024 09:36
PO	: PPR-022-3	Date Analysis Commenced	: 14-Aug-2024
C-O-C number	: ----	Issue Date	: 27-Aug-2024 15:05
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-US	GL-Trib	DL-REF	SW-11	SW-03
					Client sampling date / time	11-Aug-2024 10:00	11-Aug-2024 09:35	11-Aug-2024 09:00	10-Aug-2024 15:00	10-Aug-2024 14:15
						WP2419573-001	WP2419573-002	WP2419573-003	WP2419573-004	WP2419573-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.51	7.86	7.51	6.55	7.05
Temperature, field	----	EF001/WP	0.10	°C		19.4	18.3	19.7	17.3	13.1
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	2.9	<2.0	12.4	5.4
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		31.8	30.7	29.5	37.1	85.4
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		31.8	30.7	29.5	37.1	85.4
Conductivity	----	E100/WP	1.0	µS/cm		66.7	66.6	65.1	98.8	175
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		34.8	35.1	33.8	51.7	93.5
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		38.2	37.8	36.9	55.3	101
pH	----	E108/WP	0.10	pH units		7.49	7.51	7.54	6.97	7.65
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		78.2	74.2	78.6	168	200
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		11.2	7.8	7.1	19.3	9.7
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0153	0.0277	0.0146	0.0296	0.0338
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.14	0.13	0.18	2.54	2.43
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0104	<0.0050	<0.0050	0.0128	0.0343
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0104	<0.0051	<0.0051	0.0128	0.0343
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0579	0.0441	0.0466	0.0666	0.125
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.45	0.45	0.48	2.61	1.16
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0017	0.0019
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0016	0.0018

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-US	GL-Trib	DL-REF	SW-11	SW-03
					Client sampling date / time	11-Aug-2024 10:00	11-Aug-2024 09:35	11-Aug-2024 09:00	10-Aug-2024 15:00	10-Aug-2024 14:15
						WP2419573-001	WP2419573-002	WP2419573-003	WP2419573-004	WP2419573-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0014	0.0015
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		23.2	22.9	24.4	56.2	52.3
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.118	0.0832	0.0888	0.710	0.973
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00021	0.00013
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00472	0.00409	0.00376	0.00586	0.00481
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00859	0.00817	0.00822	0.0217	0.0297
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000021	<0.000020	0.000055	0.000054
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	0.014	0.014
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000080	0.0000070	<0.0000050	0.0000414	0.0000548
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.4	10.1	9.85	14.6	28.9
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000016	0.000051
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00048	0.00035	0.00045	0.00169	0.00224
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00169	0.00224
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00032	0.00013	0.00010	0.00077	0.00056
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00083	0.00083	0.00083	0.00343	0.00359
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.851	0.478	0.532	1.25	1.20
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000140	0.000114	0.000101	0.000341	0.000425
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	0.0020	0.0019	0.0034	0.0056
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.97	3.05	2.99	4.57	7.06
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0476	0.0213	0.0224	0.104	0.0588
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000051	0.0000093
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000175	0.000146	0.000199	0.000438	0.000527
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00061	0.00058	0.00067	0.00326	0.00382
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.039	0.058	0.035	0.045	0.094
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.058	<0.050	<0.050	0.094
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.825	0.826	0.751	1.30	4.30
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00216	0.00212	0.00200	0.00201	0.00286

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-US	GL-Trib	DL-REF	SW-11	SW-03
					Client sampling date / time	11-Aug-2024 10:00	11-Aug-2024 09:35	11-Aug-2024 09:00	10-Aug-2024 15:00	10-Aug-2024 14:15
						WP2419573-001	WP2419573-002	WP2419573-003	WP2419573-004	WP2419573-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000092	0.000104	0.000103	0.000224	0.000277
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.08	2.00	1.82	6.02	7.97
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000010	0.000031
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.38	1.37	1.38	4.59	2.57
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0254	0.0256	0.0248	0.0390	0.0540
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	1.17	0.63
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	<0.00020	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00029	0.00025
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00390	0.00272	0.00296	0.0182	0.0294
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	0.00023	0.00014
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000193	0.000182	0.000205	0.000139	0.000714
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00140	0.00107	0.00110	0.00295	0.00419
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	0.0040	0.0046
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00032	0.00032	0.00038	0.00170	0.00172
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0482	0.0514	0.0583	0.525	0.450
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00021	0.00014
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00388	0.00392	0.00336	0.00574	0.00492
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00738	0.00707	0.00751	0.0193	0.0263
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000044	0.000039
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	0.011	0.012
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000303	0.0000443
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.38	9.52	9.08	13.4	26.8
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000011
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00030	0.00033	0.00038	0.00152	0.00133
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00152	0.00133
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00011	0.00010	<0.00010	0.00020	0.00039

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DC-US	GL-Trib	DL-REF	SW-11	SW-03
					Client sampling date / time	11-Aug-2024 10:00	11-Aug-2024 09:35	11-Aug-2024 09:00	10-Aug-2024 15:00	10-Aug-2024 14:15
						WP2419573-001	WP2419573-002	WP2419573-003	WP2419573-004	WP2419573-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00072	0.00082	0.00935 RRV	0.00322	0.00311
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.366	0.366	0.417	0.901	0.717
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000088	0.000085	0.000087	0.000156	0.000248
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0019	0.0036
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.77	2.75	2.70	4.43	6.46
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00640	0.00375	0.00396	0.0163	0.0553
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000053	0.0000056
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000195	0.000202	0.000190	0.000433	0.000615
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00050	0.00054	0.00062	0.00299	0.00308
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	0.100
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	0.100
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.715	0.731	0.691	1.24	4.17
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00199	0.00201	0.00188	0.00186	0.00201
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000107	0.000099	0.000123	0.000241	0.000301
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.73	1.74	1.63	5.57	6.95
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000012	0.000037
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.26	1.30	1.32	4.41	2.51
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0234	0.0231	0.0229	0.0368	0.0529
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	1.21	0.82
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00040	0.00038
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00166	0.00156	0.00199	0.0140	0.0189
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	<0.00010	Not Detected	0.00023	0.00013
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000178	0.000168	0.000200	0.000127	0.000708
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00067	0.00067	0.00067	0.00208	0.00294
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0024	0.0018	0.0030	0.0030
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00036	0.00038	0.00040	0.00181	0.00171
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DC-US	GL-Trib	DL-REF	SW-11	SW-03
					Client sampling date / time	11-Aug-2024 10:00	11-Aug-2024 09:35	11-Aug-2024 09:00	10-Aug-2024 15:00	10-Aug-2024 14:15
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2419573-001	WP2419573-002	WP2419573-003	WP2419573-004	WP2419573-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Laboratory	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-17	SW-09	SW-10	SW-15	SW-DUP03
					Client sampling date / time	10-Aug-2024 13:10	10-Aug-2024 11:15	10-Aug-2024 10:35	10-Aug-2024 09:15	10-Aug-2024 09:15
						WP2419573-006	WP2419573-007	WP2419573-008	WP2419573-009	WP2419573-010
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		5.88	6.90	6.62	6.94	6.94
Temperature, field	----	EF001/WP	0.10	°C		16.8	16.2	15.3	15.4	15.4
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		13.5	3.8	7.4	8.6	8.6
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		6.9	36.8	63.1	42.7	43.2
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		6.9	36.8	63.1	42.7	43.2
Conductivity	----	E100/WP	1.0	µS/cm		25.1	81.1	127	97.4	97.9
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		12.2	42.4	59.8	52.2	52.1
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		13.7	45.7	71.5	56.4	56.9
pH	----	E108/WP	0.10	pH units		6.12	7.40	7.31	7.19	7.15
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		58.6	90.6	130	116	124
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.6	14.4	2.2	14.8	15.1
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0198	0.0856	0.0400	0.0419	0.0374
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		<0.10	0.41	0.17	1.20	1.20
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0776	0.0055	0.103	0.105
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0843	0.0055	0.107	0.109
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0067	<0.0010	0.0038	0.0038
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.103	0.0501	0.0446	0.186	0.159
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	0.72	0.45	0.89	0.88
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0010	<0.0010	0.0011	0.0014	0.0013
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0012	0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-17	SW-09	SW-10	SW-15	SW-DUP03
					Client sampling date / time	10-Aug-2024 13:10	10-Aug-2024 11:15	10-Aug-2024 10:35	10-Aug-2024 09:15	10-Aug-2024 09:15
						WP2419573-006	WP2419573-007	WP2419573-008	WP2419573-009	WP2419573-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		35.4	28.0	34.5	32.1	33.7
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.586	0.471	0.222	0.613	0.628
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00014	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00603	0.00352	0.00295	0.00329	0.00323
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0102	0.0135	0.0122	0.0172	0.0164
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000023	0.000029	<0.000020	0.000039	0.000038
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000144	0.0000098	<0.0000050	0.0000205	0.0000177
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		3.78	12.5	19.1	15.1	15.1
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000015	0.000042	0.000011	0.000041	0.000047
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00185	0.00107	0.00069	0.00144	0.00145
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00185	0.00107	0.00069	0.00144	0.00145
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00072	0.00030	0.00014	0.00035	0.00034
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00076	0.00143	0.00089	0.00183	0.00184
Iron, total	7439-89-6	E420/WP	0.010	mg/L		4.18	0.852	0.596	1.01	1.04
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000182	0.000275	0.000124	0.000381	0.000371
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		<0.0010	0.0024	0.0035	0.0034	0.0036
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		1.03	3.52	5.79	4.54	4.66
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0463	0.0367	0.0129	0.0347	0.0304
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000060	0.0000060
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000093	0.000206	0.000436	0.000226	0.000245
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00115	0.00125	0.00116	0.00177	0.00176
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.084	0.035	<0.030	0.059	0.056
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.084	<0.050	<0.050	0.059	0.056
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.285	0.947	1.12	1.22	1.17
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00193	0.00249	0.00179	0.00249	0.00245
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000123	0.000111	0.000134	0.000146	0.000156
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.01	3.57	4.24	4.55	4.59

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-17	SW-09	SW-10	SW-15	SW-DUP03
					Client sampling date / time	10-Aug-2024 13:10	10-Aug-2024 11:15	10-Aug-2024 10:35	10-Aug-2024 09:15	10-Aug-2024 09:15
						WP2419573-006	WP2419573-007	WP2419573-008	WP2419573-009	WP2419573-010
						Result	Result	Result	Result	Result
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000021	0.000011	0.000016
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.22	1.59	2.09	2.06	2.01
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0197	0.0288	0.0397	0.0340	0.0339
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	0.54	0.60
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000011
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00020	0.00017	0.00011	0.00024	0.00022
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0114	0.0208	0.00748	0.0218	0.0232
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000062	0.000229	0.000128	0.000157	0.000169
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00490	0.00186	0.00112	0.00217	0.00207
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0048	<0.0030	<0.0030	0.0031	0.0054
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00052	0.00079	0.00056	0.00106	0.00110
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.450	0.0984	0.128	0.166	0.173
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00014	<0.00010	<0.00010	0.00012	0.00011
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00398	0.00345	0.00298	0.00298	0.00292
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00815	0.00989	0.0113	0.0117	0.0117
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	0.000022	0.000021	0.000030	0.000031
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	<0.000050	Not Detected	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000125	<0.0000050	<0.0000050	0.0000050	0.0000070
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		3.35	11.8	15.9	13.8	13.8
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.000015	Not Detected	<0.000010	<0.000010	Not Detected
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00163	0.00044	0.00053	0.00064	0.00064
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00163	<0.00050	0.00053	0.00064	0.00064
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00048	0.00015	0.00011	0.00014	0.00014
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00062	0.00771 RRV	0.00091	0.00139	0.00147
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		1.97	0.441	0.431	0.485	0.485

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-17	SW-09	SW-10	SW-15	SW-DUP03
					Client sampling date / time	10-Aug-2024 13:10	10-Aug-2024 11:15	10-Aug-2024 10:35	10-Aug-2024 09:15	10-Aug-2024 09:15
						WP2419573-006	WP2419573-007	WP2419573-008	WP2419573-009	WP2419573-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000089	0.000310	0.000092	0.000356	0.000125
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		Not Detected	<0.0010	0.0025	0.0020	0.0021
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		0.926	3.15	4.87	4.32	4.29
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0281	0.0226	0.0148	0.0188	0.0188
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000079	0.000226	0.000356	0.000290	0.000298
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00104	0.00086	0.00102	0.00121	0.00122
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	Not Detected	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.246	0.823	0.979	0.996	1.01
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00156	0.00164	0.00158	0.00142	0.00138
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000120	0.000120	0.000120	0.000128	0.000154
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.84	2.71	3.68	3.59	3.65
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000012	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.04	1.56	1.95	2.06	2.04
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0177	0.0263	0.0361	0.0318	0.0328
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	0.78	0.74	0.74
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	<0.00020	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00019	0.00011	0.00011	0.00018	0.00019
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	0.00030 RRV	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00838	0.00400	0.00380	0.00509	0.00611
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000053	0.000192	0.000147	0.000138	0.000144
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00209	0.00094	0.00079	0.00098	0.00101
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0040	0.0037	<0.0010	<0.0010	0.0011
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00058	0.00055	0.00058	0.00081	0.00084
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-FIELD03	SW-GL	SW-GL-B	----	----
				Client sampling date / time	10-Aug-2024 09:15	11-Aug-2024 14:00	11-Aug-2024 14:10	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2419573-011	WP2419573-012	WP2419573-013	--------	--------
					Result	Result	Result	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	----	7.27	6.61	----	----
Temperature, field	----	EF001/WP	0.10	°C	----	21.0	14.9	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	<2.0	5.7	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	31.3	36.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	31.3	36.0	----	----
Conductivity	----	E100/WP	1.0	µS/cm	1.0	65.3	73.5	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	0.99	31.2	35.7	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	1.11	32.6	35.7	----	----
pH	----	E108/WP	0.10	pH units	5.46	7.57	7.16	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	<3.0	49.9	63.2	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	<1.0	2.0	6.5	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	<0.0050	<0.0050	0.0406	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	----	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	<0.10	0.18	0.21	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	<0.0020	0.0117	0.0273	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	<0.30	0.54	0.44	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-FIELD03	SW-GL	SW-GL-B	----	----
					Client sampling date / time	10-Aug-2024 09:15	11-Aug-2024 14:00	11-Aug-2024 14:10	----	----
						WP2419573-011	WP2419573-012	WP2419573-013	--------	--------
						Result	Result	Result	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		1.25	11.2	11.3	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0162	0.0149	0.0142	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		<0.00010	0.00200	0.00439	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00046	0.00768	0.0146	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		Not Detected	<0.010	<0.010	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		0.308	9.35	10.4	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00011	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.022	0.078	0.651	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		Not Detected	0.0011	0.0013	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		0.0833	2.26	2.37	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00078	0.0301	0.448	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		<0.000050	0.000094	0.000126	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		<0.050	0.668	0.734	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		<0.00020	0.00187	0.00201	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	0.000060	0.000068	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.14	0.78	1.55	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-FIELD03	SW-GL	SW-GL-B	----	----
					Client sampling date / time	10-Aug-2024 09:15	11-Aug-2024 14:00	11-Aug-2024 14:10	----	----
						WP2419573-011	WP2419573-012	WP2419573-013	--------	--------
						Result	Result	Result	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		0.061	1.09	1.12	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.00062	0.0206	0.0237	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		Not Detected	<0.50	<0.50	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	<0.000010	<0.000010	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00074	<0.00030	0.00030	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		<0.000010	0.000041	0.000045	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	Not Detected	<0.0030	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		Not Detected	<0.00020	<0.00020	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0161	0.0068	0.0079	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		<0.00010	0.00180	0.0109 RRV	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00042	0.00709	0.0126	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	<0.000020	<0.000020	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		Not Detected	<0.010	<0.010	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		Not Detected	<0.0000050	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		0.265	8.83	10.5	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	<0.000010	<0.000010	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00011	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		<0.00020	0.00082 RRV	0.00065	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.021	0.028	2.25 RRV	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-FIELD03	SW-GL	SW-GL-B	----	----
					Client sampling date / time	10-Aug-2024 09:15	11-Aug-2024 14:00	11-Aug-2024 14:10	----	----
						WP2419573-011	WP2419573-012	WP2419573-013	--------	--------
						Result	Result	Result	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		Not Detected	<0.0010	<0.0010	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		0.0801	2.23	2.31	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00071	0.00091	0.469	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		<0.000050	0.000111	0.000137	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	0.060	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		Not Detected	Not Detected	0.060	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		<0.050	0.645	0.734	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		<0.00020	0.00185	0.00212	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	0.000074	0.000054	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.118	0.733	1.89	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	<0.000010	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		<0.050	1.14	1.13	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.00060	0.0201	0.0240	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.52	<0.50	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		Not Detected	<0.000010	Not Detected	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00086	<0.00030	<0.00030	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		<0.000010	0.000036	0.000043	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0011	<0.0010	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	<0.00030	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2419573**	Page	: 1 of 47
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Aug-2024 09:36
PO	: PPR-022-3	Issue Date	: 27-Aug-2024 15:05
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1608424 001	----	Arsenic, dissolved	7440-38-2	E421	0.00012 B mg/L	0.0001 mg/L	Blank result exceeds permitted value
Dissolved Metals	QC-MRG3-1608424 001	----	Zinc, dissolved	7440-66-6	E421	0.0057 B mg/L	0.001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DC-US	E298	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DL-REF	E298	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GL-Trib	E298	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-09	E298	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-10	E298	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-15	E298	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-17	E298	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP03	E298	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELD03	E298	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DC-US	E235.Cl-L	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DL-REF	E235.Cl-L	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE GL-Trib	E235.Cl-L	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-GL	E235.Cl-L	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-GL-B	E235.Cl-L	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-03	E235.Cl-L	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-09	E235.Cl-L	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-10	E235.Cl-L	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-11	E235.Cl-L	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-15	E235.Cl-L	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-17	E235.Cl-L	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-DUP03	E235.Cl-L	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-FIELD03	E235.Cl-L	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DC-US	E235.NO3-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DL-REF	E235.NO3-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GL-Trib	E235.NO3-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-03	E235.NO3-L	10-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-11	E235.NO3-L	10-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL	E235.NO3-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL-B	E235.NO3-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-17	E235.NO3-L	10-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	4 days	× EHTL

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-09	E235.NO3-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-10	E235.NO3-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-15	E235.NO3-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-DUP03	E235.NO3-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-FIELD03	E235.NO3-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DC-US	E235.NO2-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DL-REF	E235.NO2-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GL-Trib	E235.NO2-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-03	E235.NO2-L	10-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-11	E235.NO2-L	10-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL	E235.NO2-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-GL-B	E235.NO2-L	11-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-17	E235.NO2-L	10-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-09	E235.NO2-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-10	E235.NO2-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-15	E235.NO2-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-DUP03	E235.NO2-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-FIELD03	E235.NO2-L	10-Aug-2024	14-Aug-2024	3 days	4 days	× EHTL	14-Aug-2024	3 days	4 days	× EHTL

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE DC-US	E235.SO4	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE DL-REF	E235.SO4	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GL-Trib	E235.SO4	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL	E235.SO4	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL-B	E235.SO4	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-03	E235.SO4	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-09	E235.SO4	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-10	E235.SO4	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-11	E235.SO4	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-15	E235.SO4	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-17	E235.SO4	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-DUP03	E235.SO4	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-FIELD03	E235.SO4	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DC-US	E372-U	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DL-REF	E372-U	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GL-Trib	E372-U	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL-B	E372-U	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-03	E372-U	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-10	E372-U	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-15	E372-U	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-17	E372-U	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP03	E372-U	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-FIELD03	E372-U	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E339-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E339-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-Trib	E339-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E339-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E339-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E339-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E339-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E339-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E339-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP03	E339-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD03	E339-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E333-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E333-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-Trib	E333-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E333-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E333-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E333-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E333-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E333-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP03	E333-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD03	E333-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E336-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E336-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-Trib	E336-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-10	E336-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E336-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E336-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP03	E336-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-FIELD03	E336-L	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	16-Aug-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DC-US	E421.Cr-L	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
DL-REF	E421.Cr-L	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GL-Trib	E421.Cr-L	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-17	E421.Cr-L	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	11-Aug-2024	22-Aug-2024	180 days	11 days	✓	22-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.Cr-L	11-Aug-2024	22-Aug-2024	180 days	11 days	✓	22-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-10	E421.Cr-L	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-15	E421.Cr-L	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-DUP03	E421.Cr-L	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-FIELD03	E421.Cr-L	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP03	E509	10-Aug-2024	20-Aug-2024	28 days	10 days	✓	20-Aug-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-FIELD03	E509	10-Aug-2024	20-Aug-2024	28 days	10 days	✓	20-Aug-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DC-US	E509	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DL-REF	E509	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
GL-Trib	E509	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-03	E509	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-09	E509	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-10	E509	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-11	E509	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-15	E509	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-17	E509	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL	E509	11-Aug-2024	20-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	11-Aug-2024	20-Aug-2024	28 days	9 days	✓	20-Aug-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-US	E421	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DL-REF	E421	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) GL-Trib	E421	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-11	E421	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-17	E421	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	11-Aug-2024	22-Aug-2024	180 days	11 days	✓	22-Aug-2024	180 days	11 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	11-Aug-2024	22-Aug-2024	180 days	11 days	✓	22-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-10	E421	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-15	E421	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP03	E421	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-FIELD03	E421	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DC-US	E421.P-L	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DL-REF	E421.P-L	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) GL-Trib	E421.P-L	11-Aug-2024	21-Aug-2024	180 days	10 days	✓	21-Aug-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-09	E421.P-L	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-11	E421.P-L	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-17	E421.P-L	10-Aug-2024	21-Aug-2024	180 days	11 days	✓	21-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.P-L	11-Aug-2024	22-Aug-2024	180 days	11 days	✓	22-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.P-L	11-Aug-2024	22-Aug-2024	180 days	11 days	✓	22-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-10	E421.P-L	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-15	E421.P-L	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-DUP03	E421.P-L	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-FIELD03	E421.P-L	10-Aug-2024	22-Aug-2024	180 days	12 days	✓	22-Aug-2024	180 days	12 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
DC-US	EF001	11-Aug-2024	----	----	----		15-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
DL-REF	EF001	11-Aug-2024	----	----	----		15-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
GL-Trib	EF001	11-Aug-2024	----	----	----		15-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-GL	EF001	11-Aug-2024	----	----	----		15-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-GL-B	EF001	11-Aug-2024	----	----	----		15-Aug-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-03	EF001	10-Aug-2024	----	----	----		15-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-09	EF001	10-Aug-2024	----	----	----		15-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-10	EF001	10-Aug-2024	----	----	----		15-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-11	EF001	10-Aug-2024	----	----	----		15-Aug-2024	----	5 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-15	EF001	10-Aug-2024	----	----	----		15-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-17	EF001	10-Aug-2024	----	----	----		15-Aug-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-DUP03	EF001	10-Aug-2024	----	----	----		15-Aug-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE										
SW-GL-B	E358-L	11-Aug-2024	16-Aug-2024	3 days	4 days	× EHT	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE										
DC-US	E358-L	11-Aug-2024	16-Aug-2024	3 days	5 days	× EHT	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE										
DL-REF	E358-L	11-Aug-2024	16-Aug-2024	3 days	5 days	× EHT	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE										
GL-Trib	E358-L	11-Aug-2024	16-Aug-2024	3 days	5 days	× EHT	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE										
SW-03	E358-L	10-Aug-2024	16-Aug-2024	3 days	5 days	× EHTL	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE										
SW-11	E358-L	10-Aug-2024	16-Aug-2024	3 days	5 days	× EHTL	16-Aug-2024	28 days	0 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE SW-GL	E358-L	11-Aug-2024	16-Aug-2024	3 days	5 days	× EHT	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE SW-09	E358-L	10-Aug-2024	16-Aug-2024	3 days	6 days	× EHTL	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE SW-10	E358-L	10-Aug-2024	16-Aug-2024	3 days	6 days	× EHTL	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE SW-15	E358-L	10-Aug-2024	16-Aug-2024	3 days	6 days	× EHTL	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE SW-17	E358-L	10-Aug-2024	16-Aug-2024	3 days	6 days	× EHTL	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE SW-DUP03	E358-L	10-Aug-2024	16-Aug-2024	3 days	6 days	× EHTL	16-Aug-2024	28 days	0 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE SW-FIELD03	E358-L	10-Aug-2024	16-Aug-2024	3 days	6 days	× EHTL	16-Aug-2024	28 days	0 days	✓
Physical Tests : Acidity by Titration										
HDPE DC-US	E283	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	17-Aug-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE DL-REF	E283	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	17-Aug-2024	14 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	17-Aug-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	17-Aug-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE GL-Trib	E283	11-Aug-2024	16-Aug-2024	14 days	5 days	✓	17-Aug-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-03	E283	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	17-Aug-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-09	E283	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	17-Aug-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-10	E283	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	17-Aug-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-11	E283	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	17-Aug-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-15	E283	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	17-Aug-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-17	E283	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	17-Aug-2024	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-DUP03	E283	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	17-Aug-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-FIELD03	E283	10-Aug-2024	16-Aug-2024	14 days	6 days	✓	17-Aug-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL	E290	11-Aug-2024	14-Aug-2024	14 days	3 days	✓	14-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL-B	E290	11-Aug-2024	14-Aug-2024	14 days	3 days	✓	14-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DC-US	E290	11-Aug-2024	14-Aug-2024	14 days	4 days	✓	14-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DL-REF	E290	11-Aug-2024	14-Aug-2024	14 days	4 days	✓	14-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GL-Trib	E290	11-Aug-2024	14-Aug-2024	14 days	4 days	✓	14-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-03	E290	10-Aug-2024	14-Aug-2024	14 days	4 days	✓	14-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-09	E290	10-Aug-2024	14-Aug-2024	14 days	4 days	✓	14-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-11	E290	10-Aug-2024	14-Aug-2024	14 days	4 days	✓	14-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-17	E290	10-Aug-2024	14-Aug-2024	14 days	4 days	✓	14-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-10	E290	10-Aug-2024	14-Aug-2024	14 days	5 days	✓	14-Aug-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-15	E290	10-Aug-2024	14-Aug-2024	14 days	5 days	✓	14-Aug-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-DUP03	E290	10-Aug-2024	14-Aug-2024	14 days	5 days	✓	14-Aug-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-FIELD03	E290	10-Aug-2024	14-Aug-2024	14 days	5 days	✓	14-Aug-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL	E100	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL-B	E100	11-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE DC-US	E100	11-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE DL-REF	E100	11-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE GL-Trib	E100	11-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-03	E100	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-09	E100	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-11	E100	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-17	E100	10-Aug-2024	14-Aug-2024	28 days	4 days	✓	14-Aug-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-10	E100	10-Aug-2024	14-Aug-2024	28 days	5 days	✓	14-Aug-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-15	E100	10-Aug-2024	14-Aug-2024	28 days	5 days	✓	14-Aug-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-DUP03	E100	10-Aug-2024	14-Aug-2024	28 days	5 days	✓	14-Aug-2024	28 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE SW-FIELD03	E100	10-Aug-2024	14-Aug-2024	28 days	5 days	✓	14-Aug-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE SW-11	E108	10-Aug-2024	14-Aug-2024	0.25 hrs	103 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	103 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-03	E108	10-Aug-2024	14-Aug-2024	0.25 hrs	104 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	104 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-17	E108	10-Aug-2024	14-Aug-2024	0.25 hrs	105 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	105 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-09	E108	10-Aug-2024	14-Aug-2024	0.25 hrs	107 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	107 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-10	E108	10-Aug-2024	14-Aug-2024	0.25 hrs	108 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	108 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-15	E108	10-Aug-2024	14-Aug-2024	0.25 hrs	109 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	109 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-DUP03	E108	10-Aug-2024	14-Aug-2024	0.25 hrs	109 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	109 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-FIELD03	E108	10-Aug-2024	14-Aug-2024	0.25 hrs	109 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	109 hrs	× EHTR-FM

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE SW-GL	E108	11-Aug-2024	14-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL-B	E108	11-Aug-2024	14-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DC-US	E108	11-Aug-2024	14-Aug-2024	0.25 hrs	84 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	84 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DL-REF	E108	11-Aug-2024	14-Aug-2024	0.25 hrs	85 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	85 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GL-Trib	E108	11-Aug-2024	14-Aug-2024	0.25 hrs	85 hrs	× EHTR-FM	14-Aug-2024	0.25 hrs	85 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DC-US	E162-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DL-REF	E162-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GL-Trib	E162-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL	E162-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL-B	E162-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-03	E162-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-09	E162-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-10	E162-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-11	E162-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-15	E162-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-17	E162-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-DUP03	E162-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-FIELD03	E162-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE DC-US	E160-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE DL-REF	E160-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE GL-Trib	E160-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-GL	E160-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-GL-B	E160-L	11-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-03	E160-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-09	E160-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-10	E160-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-11	E160-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-15	E160-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-17	E160-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-DUP03	E160-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-FIELD03	E160-L	10-Aug-2024	----	----	----		15-Aug-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-10	E420.Cr-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-15	E420.Cr-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-17	E420.Cr-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP03	E420.Cr-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD03	E420.Cr-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-US	E420.Cr-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DL-REF	E420.Cr-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GL-Trib	E420.Cr-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-US	E508	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DL-REF	E508	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GL-Trib	E508	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	11-Aug-2024	19-Aug-2024	28 days	8 days	✓	19-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-10	E508	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-15	E508	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-17	E508	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-DUP03	E508	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-FIELD03	E508	10-Aug-2024	19-Aug-2024	28 days	9 days	✓	19-Aug-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-03	E420	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-09	E420	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-10	E420	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-11	E420	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-15	E420	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-17	E420	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP03	E420	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD03	E420	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-US	E420	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DL-REF	E420	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GL-Trib	E420	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-10	E420.P-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-15	E420.P-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-17	E420.P-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP03	E420.P-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELD03	E420.P-L	10-Aug-2024	20-Aug-2024	180 days	10 days	✓	20-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-US	E420.P-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DL-REF	E420.P-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GL-Trib	E420.P-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL	E420.P-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-GL-B	E420.P-L	11-Aug-2024	20-Aug-2024	180 days	9 days	✓	20-Aug-2024	180 days	9 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1600438	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	1597457	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1603226	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1597098	1	14	7.1	5.0	✓
Conductivity in Water	E100	1597456	2	33	6.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1608426	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1603626	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1608424	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1600437	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1608425	1	22	4.5	5.0	✗
Free Cyanide (Low Level)	E339-L	1600295	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1597096	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1597097	1	13	7.6	5.0	✓
pH by Meter	E108	1597458	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1597094	2	28	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1596972	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1605490	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1600296	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1603596	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1605484	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1605111	2	36	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1605488	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1596976	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1600294	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1600438	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	1597457	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1603226	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1597098	2	14	14.2	5.0	✓
Conductivity in Water	E100	1597456	2	33	6.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1608426	2	13	15.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1603626	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1608424	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1600437	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1608425	2	22	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1600295	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1597096	2	13	15.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1597097	2	13	15.3	5.0	✓
pH by Meter	E108	1597458	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1597094	2	28	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1596972	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1605490	2	13	15.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1600296	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1603596	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1605484	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1605111	2	36	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1605488	2	15	13.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1596976	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1600294	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1600438	2	40	5.0	5.0	✓
Alkalinity Species by Titration	E290	1597457	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1603226	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1597098	2	14	14.2	5.0	✓
Conductivity in Water	E100	1597456	2	33	6.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1608426	2	13	15.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1603626	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1608424	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1600437	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1608425	2	22	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1600295	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1597096	2	13	15.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1597097	2	13	15.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1597094	2	28	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1596972	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1605490	2	13	15.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1600296	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1603596	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1605484	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1605111	2	36	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1605488	2	15	13.3	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1596976	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1600294	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1603226	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1597098	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1608426	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1603626	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1608424	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1600437	2	40	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1608425	1	22	4.5	5.0	✗
Free Cyanide (Low Level)	E339-L	1600295	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1597096	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1597097	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1597094	2	28	7.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1605490	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1600296	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1603596	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1605484	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1605111	2	36	5.5	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1605488	1	15	6.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1600294	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order	: **WP2419573**	Page	: 1 of 28
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 13-Aug-2024 09:36
PO	: PPR-022-3	Date Analysis Commenced	: 14-Aug-2024
C-O-C number	: ----	Issue Date	: 27-Aug-2024 15:05
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1596972)											
WP2419493-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	68.9	71.6	2.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1596973)											
WP2419573-002	GL-Trib	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	74.2	76.2	2.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1596976)											
WP2419351-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	6.2	8.0	1.8	Diff <2x LOR	----
Physical Tests (QC Lot: 1597456)											
WP2419551-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1060	1060	0.376%	10%	----
Physical Tests (QC Lot: 1597457)											
WP2419551-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	524	528	0.817%	20%	----
Physical Tests (QC Lot: 1597458)											
WP2419551-001	Anonymous	pH	----	E108	0.10	pH units	7.50	7.45	0.669%	4%	----
Physical Tests (QC Lot: 1600438)											
WP2419346-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1600481)											
WP2419573-002	GL-Trib	Acidity (as CaCO3)	----	E283	2.0	mg/L	2.9	2.7	0.2	Diff <2x LOR	----
Physical Tests (QC Lot: 1603113)											
WP2419720-004	Anonymous	Conductivity	----	E100	2.0	µS/cm	60.4	59.5	1.50%	10%	----
Physical Tests (QC Lot: 1603114)											
WP2419720-004	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	14.1	14.3	1.41%	20%	----
Physical Tests (QC Lot: 1603115)											
WP2419720-004	Anonymous	pH	----	E108	0.10	pH units	6.81	6.82	0.147%	4%	----
Anions and Nutrients (QC Lot: 1597094)											
WP2419555-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1597275)											
WP2419573-006	SW-17	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1597276)											
WP2419573-006	SW-17	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1597277)											
WP2419573-006	SW-17	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1597278)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1597278) - continued											
WP2419573-006	SW-17	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	<0.10	<0.10	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1603226)											
WP2419551-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1605111)											
WP2419352-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0126	0.0126	0.00003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1605112)											
WP2419573-009	SW-15	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.186	0.192	2.77%	20%	----
Cyanides (QC Lot: 1600294)											
WP2419346-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1600295)											
WP2419346-001	Anonymous	Cyanide, free	----	E339-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1600296)											
WP2419346-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1600437)											
WP2419451-005	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	5.67	5.40	4.93%	20%	----
Organic / Inorganic Carbon (QC Lot: 1600483)											
WP2419184-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.45	1.42	0.03	Diff <2x LOR	----
Total Metals (QC Lot: 1603596)											
WP2419573-001	DC-US	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1605484)											
WP2419548-003	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	7.2 µg/L	0.0070	0.0002	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.38 µg/L	0.00038	0.000006	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	1.08 µg/L	0.00109	0.396%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	26.1 µg/L	0.0264	0.951%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	91 µg/L	0.092	0.0009	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	74200 µg/L	73.2	1.47%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.016 µg/L	0.000015	0.000001	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.11 µg/L	0.00011	0.0000009	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	3.83 µg/L	0.00389	0.00006	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1605484) - continued											
WP2419548-003	Anonymous	Iron, total	7439-89-6	E420	0.010	mg/L	15 µg/L	0.015	0.0002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.332 µg/L	0.000326	0.000005	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	64.8 µg/L	0.0641	1.05%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	18100 µg/L	18.3	0.760%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.32 µg/L	0.00034	0.00002	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	2.65 µg/L	0.00254	4.27%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	1.20 µg/L	0.00128	0.00008	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<50 µg/L	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	8210 µg/L	8.16	0.647%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	3.51 µg/L	0.00357	1.71%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.714 µg/L	0.000765	6.92%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1140 µg/L	1.17	2.78%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.028 µg/L	<0.000010	0.000018	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	53300 µg/L	53.6	0.614%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	238 µg/L	0.234	1.97%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	99300 µg/L	102	2.31%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.16 µg/L	0.00015	0.00001	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.241 µg/L	0.000235	2.34%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	2.78 µg/L	0.00275	0.00003	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	12.4 µg/L	0.0126	0.0002	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1605505)											
WP2419573-010	SW-DUP03	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00145	0.00160	9.49%	20%	----
Total Metals (QC Lot: 1605506)											
WP2419573-010	SW-DUP03	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.056	0.054	0.002	Diff <2x LOR	----
Total Metals (QC Lot: 1605507)											
WP2419573-010	SW-DUP03	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.628	0.720	13.6%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00323	0.00330	2.28%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1605507) - continued											
WP2419573-010	SW-DUP03	Barium, total	7440-39-3	E420	0.00010	mg/L	0.0164	0.0175	6.64%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.000038	0.000047	0.000009	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000177	0.0000194	0.0000016	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	15.1	15.0	0.567%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000047	0.000062	0.000015	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00145	0.00160	0.00014	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00034	0.00038	0.00004	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00184	0.00194	0.00009	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	1.04	1.10	5.52%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000371	0.000395	0.000024	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0036	0.0035	0.00009	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.66	4.71	1.11%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0304	0.0308	1.64%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000245	0.000236	0.000008	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00176	0.00185	0.00009	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.056	0.054	0.002	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.17	1.18	0.824%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00245	0.00260	6.21%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000156	0.000126	0.000030	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.59	4.74	3.24%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000016	0.000013	0.000002	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2.01	2.09	3.68%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0339	0.0337	0.776%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	0.60	<0.50	0.10	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000011	0.000013	0.000002	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00022	0.00022	0.000003	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.0232	0.0278	18.3%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000169	0.000177	4.56%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00207	0.00224	0.00017	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1605507) - continued											
WP2419573-010	SW-DUP03	Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0054	<0.0030	0.0024	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00110	0.00116	0.00006	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1603626)											
WP2419163-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1605418)											
WP2419140-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1608424)											
WP2419519-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0014	0.0021	0.0007	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00024	0.00025	0.000010	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00077	0.00076	0.000009	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.461	0.482	4.36%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.018	0.018	0.0003	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000066	<0.0000050	0.0000016	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	66.6	67.5	1.43%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0033	0.0031	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	13.1	14.0	6.54%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00274	0.00263	4.17%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000201	0.000202	0.0000006	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.760	0.749	1.49%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00039	0.00036	0.00003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000741	0.000809	8.85%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	10.6	10.4	2.17%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.56	2.45	4.54%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1608424) - continued											
WP2419519-003	Anonymous	Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0706	0.0719	1.90%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.50	2.42	0.08	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000665	0.000659	0.902%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00054	0.00054	0.000001	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1611263)											
WP2419573-008	SW-10	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00053	0.00051	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1611264)											
WP2419573-008	SW-10	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1611265)											
WP2419573-008	SW-10	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.128	0.124	2.39%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00298	0.00293	1.61%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0113	0.0111	1.75%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000021	<0.000020	0.000001	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	15.9	16.0	0.0933%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00053	0.00051	0.00002	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00011	0.00012	0.000003	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00091	0.00088	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.431	0.436	1.19%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000092	0.000092	0.0000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0025	0.0024	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.87	4.78	2.05%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1611265) - continued											
WP2419573-008	SW-10	Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0148	0.0142	4.01%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000356	0.000351	0.000005	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00102	0.00097	0.00005	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.979	0.976	0.362%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00158	0.00158	0.000008	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000120	0.000127	0.000007	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	3.68	3.58	2.94%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.95	1.90	2.73%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0361	0.0328	9.41%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.78	0.68	0.10	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	0.00011	0.00012	0.000001	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00380	0.00369	2.93%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000147	0.000134	8.78%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00079	0.00080	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00058	0.00058	0.000004	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1596972)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1596973)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1596976)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1597456)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1597457)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1600438)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1600481)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1603113)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1603114)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1597094)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1597096)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1597097)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1597098)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1597275)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1597276)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1597277)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1597278)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1597278) - continued						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1603226)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1605111)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1605112)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1600294)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1600295)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1600296)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1600437)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1600483)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1603596)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1605484)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1605484) - continued						
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1605488)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1605490)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1605505)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1605506)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1605507)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1605507) - continued						
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1605507) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1603626)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1605418)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1608424)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	# 0.00012	B
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1608424) - continued						
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	# 0.0057	B
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1608425)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1608426)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1611263)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1611264)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1611265)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1611265) - continued						
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1596972)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.8	85.0	115	----
Physical Tests (QCLot: 1596973)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	98.7	85.0	115	----
Physical Tests (QCLot: 1596976)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	111	85.0	115	----
Physical Tests (QCLot: 1597456)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1597457)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1597458)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1600438)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	99.1	85.0	115	----
Physical Tests (QCLot: 1600481)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	105	85.0	115	----
Physical Tests (QCLot: 1603113)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1603114)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1603115)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Anions and Nutrients (QCLot: 1597094)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	97.8	90.0	110	----
Anions and Nutrients (QCLot: 1597096)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.1	90.0	110	----
Anions and Nutrients (QCLot: 1597097)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.3	90.0	110	----
Anions and Nutrients (QCLot: 1597098)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.0	90.0	110	----
Anions and Nutrients (QCLot: 1597275)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	97.1	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1597276)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	97.5	90.0	110	----
Anions and Nutrients (QCLot: 1597277)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.4	90.0	110	----
Anions and Nutrients (QCLot: 1597278)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	96.4	90.0	110	----
Anions and Nutrients (QCLot: 1603226)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.2	85.0	115	----
Anions and Nutrients (QCLot: 1605111)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	97.3	80.0	120	----
Anions and Nutrients (QCLot: 1605112)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	97.2	80.0	120	----
Cyanides (QCLot: 1600294)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	97.6	80.0	120	----
Cyanides (QCLot: 1600295)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1600296)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1600437)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1600483)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Metals (QCLot: 1603596)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.5	80.0	120	----
Total Metals (QCLot: 1605484)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	102	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.8	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	95.9	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1605484) - continued									
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	98.4	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.6	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	91.8	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.1	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	105	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	106	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.6	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	94.7	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	96.0	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	91.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	98.8	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.0	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	97.2	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.5	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.5	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.7	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.4	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.2	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Total Metals (QCLot: 1605488)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Total Metals (QCLot: 1605490)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Total Metals (QCLot: 1605505)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	98.3	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1605506)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	108	80.0	120	----
Total Metals (QCLot: 1605507)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	97.7	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.1	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	104	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	108	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	101	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.4	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	96.5	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	98.3	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.7	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.6	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	92.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.9	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	104	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	95.1	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	98.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.6	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	93.8	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.0	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	91.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	99.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	100.0	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	98.2	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1605507) - continued									
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	95.5	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.3	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	97.6	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1608424)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	100	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.4	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.0	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	95.1	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.7	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	93.8	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	97.9	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	92.8	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.5	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	97.5	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	91.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	87.9	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	97.3	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.3	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	94.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.3	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	90.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1608424) - continued									
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	98.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	100	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	93.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	88.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.6	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	94.1	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	90.0	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	118	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	97.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 1608426)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.5	80.0	120	----
Dissolved Metals (QCLot: 1611263)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	94.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	93.0	80.0	120	----
Dissolved Metals (QCLot: 1611265)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	96.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	94.5	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	94.4	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	100.0	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	94.9	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.8	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	95.0	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	93.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	94.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	91.9	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	90.9	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.9	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	88.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	91.4	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	98.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1611265) - continued									
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	96.5	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	92.9	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	92.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	93.0	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	93.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	90.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	93.0	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	85.5	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.7	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	92.8	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	108	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	89.5	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	94.3	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	90.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	94.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	92.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.4	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.8	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	94.1	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	87.0	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1597094)										
WP2419555-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	107 mg/L	100 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 1597275)										
WP2419573-006	SW-17	Sulfate (as SO4)	14808-79-8	E235.SO4	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1597276)										
WP2419573-006	SW-17	Nitrate (as N)	14797-55-8	E235.NO3-L	2.66 mg/L	2.5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1597277)										
WP2419573-006	SW-17	Nitrite (as N)	14797-65-0	E235.NO2-L	0.517 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1597278)										
WP2419573-006	SW-17	Chloride	16887-00-6	E235.Cl-L	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1603226)										
WP2419551-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.104 mg/L	0.1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1605111)										
WP2419368-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.249 mg/L	0.25 mg/L	99.6	70.0	130	----
Anions and Nutrients (QCLot: 1605112)										
WP2419573-010	SW-DUP03	Phosphorus, total	7723-14-0	E372-U	0.245 mg/L	0.25 mg/L	98.0	70.0	130	----
Cyanides (QCLot: 1600294)										
WP2419346-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.625 mg/L	0.625 mg/L	100.0	75.0	125	----
Cyanides (QCLot: 1600295)										
WP2419346-001	Anonymous	Cyanide, free	----	E339-L	0.658 mg/L	0.625 mg/L	105	75.0	125	----
Cyanides (QCLot: 1600296)										
WP2419346-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	1.20 mg/L	1.25 mg/L	95.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1600437)										
WP2419573-001	DC-US	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1600483)										
WP2419184-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.08 mg/L	5 mg/L	102	70.0	130	----
Total Metals (QCLot: 1603596)										
WP2419573-002	GL-Trib	Mercury, total	7439-97-6	E508	0.0000998 mg/L	0 mg/L	99.8	70.0	130	----
Total Metals (QCLot: 1605484)										
WP2419548-003	Anonymous	Aluminum, total	7429-90-5	E420	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1605484) - continued										
WP2419548-003	Anonymous	Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00988 mg/L	0.01 mg/L	98.8	70.0	130	----
		Boron, total	7440-42-8	E420	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00398 mg/L	0.004 mg/L	99.5	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0407 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Copper, total	7440-50-8	E420	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Iron, total	7439-89-6	E420	2.06 mg/L	2 mg/L	103	70.0	130	----
		Lead, total	7439-92-1	E420	0.0189 mg/L	0.02 mg/L	94.5	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0986 mg/L	0.1 mg/L	98.6	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0392 mg/L	0.04 mg/L	98.0	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.0 mg/L	10 mg/L	110	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0422 mg/L	0.04 mg/L	105	70.0	130	----
		Silicon, total	7440-21-3	E420	10.1 mg/L	10 mg/L	101	70.0	130	----
		Silver, total	7440-22-4	E420	0.00398 mg/L	0.004 mg/L	99.4	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.4	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.381 mg/L	0.4 mg/L	95.2	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
Total Metals (QCLot: 1605505)										
WP2419573-010	SW-DUP03	Chromium, total	7440-47-3	E420.Cr-L	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
Total Metals (QCLot: 1605506)										
WP2419573-010	SW-DUP03	Phosphorus, total	7723-14-0	E420.P-L	10.4 mg/L	10 mg/L	104	70.0	130	----
Total Metals (QCLot: 1605507)										
WP2419573-010	SW-DUP03	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1605507) - continued										
WP2419573-010	SW-DUP03	Arsenic, total	7440-38-2	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, total	7440-39-3	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Boron, total	7440-42-8	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00399 mg/L	0.004 mg/L	99.8	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0198 mg/L	0.02 mg/L	99.3	70.0	130	----
		Copper, total	7440-50-8	E420	0.0195 mg/L	0.02 mg/L	97.7	70.0	130	----
		Iron, total	7439-89-6	E420	1.88 mg/L	2 mg/L	94.2	70.0	130	----
		Lead, total	7439-92-1	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Lithium, total	7439-93-2	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0398 mg/L	0.04 mg/L	99.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.4 mg/L	10 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.26 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		Silicon, total	7440-21-3	E420	9.41 mg/L	10 mg/L	94.1	70.0	130	----
		Silver, total	7440-22-4	E420	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.0 mg/L	20 mg/L	100	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Tin, total	7440-31-5	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00419 mg/L	0.004 mg/L	105	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, total	7440-66-6	E420	0.389 mg/L	0.4 mg/L	97.3	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1603626)										
WP2419382-003	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000898 mg/L	0 mg/L	89.8	70.0	130	----
Dissolved Metals (QCLot: 1605418)										
WP2419224-005	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000992 mg/L	0 mg/L	99.2	70.0	130	----
Dissolved Metals (QCLot: 1608424)										
WP2419519-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.199 mg/L	0.2 mg/L	99.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1608424) - continued										
WP2419519-003	Anonymous	Antimony, dissolved	7440-36-0	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00933 mg/L	0.01 mg/L	93.3	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00998 mg/L	0.01 mg/L	99.8	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0396 mg/L	0.04 mg/L	99.1	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0194 mg/L	0.02 mg/L	97.0	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0193 mg/L	0.02 mg/L	96.7	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.88 mg/L	2 mg/L	93.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0185 mg/L	0.02 mg/L	92.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0970 mg/L	0.1 mg/L	97.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0381 mg/L	0.04 mg/L	95.3	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.6 mg/L	10 mg/L	106	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.31 mg/L	4 mg/L	108	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	ND mg/L	----	ND	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00387 mg/L	0.004 mg/L	96.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.2 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00393 mg/L	0.004 mg/L	98.3	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0395 mg/L	0.04 mg/L	98.7	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00388 mg/L	0.004 mg/L	97.1	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0999 mg/L	0.1 mg/L	99.9	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.396 mg/L	0.4 mg/L	98.9	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 1611263)										
WP2419573-008	SW-10	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
Dissolved Metals (QCLot: 1611264)										
WP2419573-008	SW-10	Phosphorus, dissolved	7723-14-0	E421.P-L	9.80 mg/L	10 mg/L	98.0	70.0	130	----
Dissolved Metals (QCLot: 1611265)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1611265) - continued										
WP2419573-008	SW-10	Aluminum, dissolved	7429-90-5	E421	0.195 mg/L	0.2 mg/L	97.5	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0420 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00934 mg/L	0.01 mg/L	93.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.94 mg/L	2 mg/L	96.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0191 mg/L	0.02 mg/L	95.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0969 mg/L	0.1 mg/L	96.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.80 mg/L	10 mg/L	98.0	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.86 mg/L	4 mg/L	96.6	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.25 mg/L	10 mg/L	92.5	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00396 mg/L	0.004 mg/L	99.0	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.88 mg/L	2 mg/L	94.0	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	19.9 mg/L	20 mg/L	99.4	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00390 mg/L	0.004 mg/L	97.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00391 mg/L	0.004 mg/L	97.7	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.409 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	DC-US	11-Aug-24	10:00	Water	10		X		7.51	19.4	66
	GL-Trib	11-Aug-24	9:35	Water	10		X		7.86	18.3	63.6
	DL-REF	11-Aug-24	9:00	Water	10		X		7.51	19.7	64.1
	SW-11	10-Aug-24	15:00	Water	10	X			6.55	17.3	96.5
	SW-03	10-Aug-24	14:15	Water	10	X			7.05	13.1	152
	SW-17	10-Aug-24	13:10	Water	10		X		5.88	16.8	25.1
	SW-09	10-Aug-24	11:15	Water	10	X			6.9	16.2	73.9
	SW-10	10-Aug-24	10:35	Water	10		X		6.62	15.3	89.2
	SW-15	10-Aug-24	9:15	Water	10		X		6.94	15.4	87
	SW-DUP03	10-Aug-24	9:15	Water	10	X			6.94	15.4	87
	SW-FIELD03	10-Aug-24	9:15	Water	9				N/A	N/A	N/A
	SW-GL	11-Aug-24	14:00	Water	10	X			7.27	21	66.6
	SW-GL-B	11-Aug-24	14:10	Water	10	X			6.61	14.9	75.6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	AUGUST 12 2024	Time:	Received by:	Date: Aug 13	Time: 9:36	Received by:	Time:

17.6°

10F3

Environmental Division
Winnipeg
Work Order Reference
WP2419573

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross				COC receipt info complete ☐		
Express TAT?	no	Yes: same day	1 day	2 day	3 days	4 day
Short hold time?	no	Yes: <24 hrs	1 day	2 days ?	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white	18x500 1x250	Orange/black	
Purple/white	18x125	Dark blue/white	
Red/white	17x125	Black/white	
Dark green/white	9x100	Brown/white	
Grey/white		Pink/white	
Yellow/black		Beige/white	
Light blue/white		Other (specify)	5x250 clear 18x40ml

Comments:

17.6°, ice packs, 2 coolers

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2419654**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2024 10:34
PO	: PPR-022-3	Date Analysis Commenced	: 14-Aug-2024
C-O-C number	: ----	Issue Date	: 26-Aug-2024 12:04
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-12b	SW-14	SW-14-B	SW-TRAVELBLANK	----
					Client sampling date / time	12-Aug-2024 09:50	12-Aug-2024 10:05	12-Aug-2024 00:00	12-Aug-2024 00:00	----
						WP2419654-001	WP2419654-002	WP2419654-003	WP2419654-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.05	7.45	6.57	----	----
Temperature, field	----	EF001/WP	0.10	°C		14.8	20.1	18.9	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		15.7	<2.0	<2.0	<2.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		39.4	35.2	34.8	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		39.4	35.2	34.8	<1.0	----
Conductivity	----	E100/WP	1.0	µS/cm		87.3	91.0	91.2	Not Detected	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		53.2	39.0	38.7	<0.50	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		56.9	40.2	40.0	<0.50	----
pH	----	E108/WP	0.10	pH units		7.17	7.61	7.63	5.46	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		137	93.6	87.2	<3.0	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.4	2.2	2.2	<1.0	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0201	0.0109	0.0104	<0.0050	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.10	4.94	4.96	Not Detected	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0195	0.0202	0.0188	Not Detected	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	0.64	0.64	<0.30	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0017	<0.0010	0.0011	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0016	<0.0010	<0.0010	<0.0010	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-12b	SW-14	SW-14-B	SW-TRAVELBLANK	----
					Client sampling date / time	12-Aug-2024 09:50	12-Aug-2024 10:05	12-Aug-2024 00:00	12-Aug-2024 00:00	----
						WP2419654-001	WP2419654-002	WP2419654-003	WP2419654-004	--------
						Result	Result	Result	Result	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0014	<0.0010	<0.0010	<0.0010	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		46.8	23.6	23.1	<0.50	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.131	0.0357	0.0395	<0.0030	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00013	<0.00010	0.00011	<0.00010	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00397	0.00285	0.00291	<0.00010	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0109	0.00816	0.00825	<0.00010	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	Not Detected	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	Not Detected	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	Not Detected	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000089	<0.0000050	0.0000063	Not Detected	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		15.4	9.95	9.90	<0.050	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00098	0.00023	0.00023	<0.00010	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00098	<0.00050	<0.00050	Not Detected	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00046	<0.00010	<0.00010	Not Detected	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00104	<0.00050	<0.00050	Not Detected	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.626	0.091	0.094	Not Detected	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000108	<0.000050	<0.000050	Not Detected	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0017	0.0013	0.0012	Not Detected	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		4.47	3.74	3.71	<0.0050	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0586	0.0184	0.0185	<0.00010	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000159	0.000154	0.000165	Not Detected	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00172	<0.00050	<0.00050	Not Detected	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.094	1.00	1.00	Not Detected	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00024	0.00133	0.00137	Not Detected	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-12b	SW-14	SW-14-B	SW-TRAVELBLANK	----
					Client sampling date / time	12-Aug-2024 09:50	12-Aug-2024 10:05	12-Aug-2024 00:00	12-Aug-2024 00:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2419654-001	WP2419654-002	WP2419654-003	WP2419654-004	--------
						Result	Result	Result	Result	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000143	0.000103	0.000142	<0.000050	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		5.43	0.50	0.54	<0.10	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000013	<0.000010	<0.000010	<0.000010	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.79	4.06	4.06	Not Detected	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0379	0.0270	0.0272	Not Detected	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	<0.50	Not Detected	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000031	Not Detected	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00245	0.00054	0.00060	Not Detected	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000069	0.000056	0.000050	Not Detected	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00080	<0.00050	<0.00050	<0.00050	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0033	<0.0030	<0.0030	Not Detected	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00045	<0.00020	<0.00020	Not Detected	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.114	0.0246	0.0236	Not Detected	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00010	<0.00010	<0.00010	Not Detected	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00384	0.00262	0.00260	Not Detected	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0100	0.00768	0.00768	Not Detected	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	Not Detected	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	<0.000050	Not Detected	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	Not Detected	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000055	Not Detected	Not Detected	Not Detected	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		14.4	9.75	9.76	Not Detected	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00049	0.00016	0.00016	<0.00010	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	Not Detected	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00037	<0.00010	<0.00010	Not Detected	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-12b	SW-14	SW-14-B	SW-TRAVELBLANK	----
					Client sampling date / time	12-Aug-2024 09:50	12-Aug-2024 10:05	12-Aug-2024 00:00	12-Aug-2024 00:00	----
						WP2419654-001	WP2419654-002	WP2419654-003	WP2419654-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00063	0.00039	0.00060	Not Detected	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.460	0.047	0.051	Not Detected	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	Not Detected	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0013	0.0013	0.0013	Not Detected	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		4.19	3.55	3.49	<0.0050	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0469	0.00059	0.00053	Not Detected	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000150	0.000173	0.000177	Not Detected	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00128	<0.00050	<0.00050	Not Detected	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	Not Detected	Not Detected	Not Detected	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.071	0.963	0.949	Not Detected	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		<0.00020	0.00119	0.00126	Not Detected	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000145	0.000089	0.000076	Not Detected	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		5.05	0.444	0.454	Not Detected	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	0.000015	<0.000010	Not Detected	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.62	3.75	3.70	Not Detected	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0354	0.0265	0.0256	<0.00020	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	<0.50	Not Detected	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	<0.00020	Not Detected	Not Detected	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	Not Detected	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00185	<0.00030	<0.00030	Not Detected	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	<0.00010	Not Detected	Not Detected	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000064	0.000049	0.000043	Not Detected	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	Not Detected	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	Not Detected	<0.0010	Not Detected	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00045	<0.00030	<0.00030	Not Detected	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-12b	SW-14	SW-14-B	SW-TRAVELBLANK	----
					Client sampling date / time	12-Aug-2024 09:50	12-Aug-2024 10:05	12-Aug-2024 00:00	12-Aug-2024 00:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2419654-001	WP2419654-002	WP2419654-003	WP2419654-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2419654**	Page	: 1 of 22
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2024 10:34
PO	: PPR-022-3	Issue Date	: 26-Aug-2024 12:04
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG6-1610111001	----	Silver, total	7440-22-4	E420	0.000011 B mg/L	0.00001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-12b	E298	12-Aug-2024	16-Aug-2024	28 days	4 days	✓	16-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14	E298	12-Aug-2024	16-Aug-2024	28 days	4 days	✓	16-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14-B	E298	12-Aug-2024	16-Aug-2024	28 days	4 days	✓	16-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TRAVELBLANK	E298	12-Aug-2024	16-Aug-2024	28 days	4 days	✓	16-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-12b	E235.Cl-L	12-Aug-2024	14-Aug-2024	28 days	2 days	✓	14-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-14	E235.Cl-L	12-Aug-2024	14-Aug-2024	28 days	2 days	✓	14-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-14-B	E235.Cl-L	12-Aug-2024	14-Aug-2024	28 days	2 days	✓	14-Aug-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-TRAVELBLANK	E235.Cl-L	12-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-12b	E235.NO3-L	12-Aug-2024	14-Aug-2024	3 days	2 days	✓	14-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-14	E235.NO3-L	12-Aug-2024	14-Aug-2024	3 days	2 days	✓	14-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-14-B	E235.NO3-L	12-Aug-2024	14-Aug-2024	3 days	2 days	✓	14-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-TRAVELBLANK	E235.NO3-L	12-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-12b	E235.NO2-L	12-Aug-2024	14-Aug-2024	3 days	2 days	✓	14-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-14	E235.NO2-L	12-Aug-2024	14-Aug-2024	3 days	2 days	✓	14-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-14-B	E235.NO2-L	12-Aug-2024	14-Aug-2024	3 days	2 days	✓	14-Aug-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-TRAVELBLANK	E235.NO2-L	12-Aug-2024	14-Aug-2024	3 days	3 days	✓	14-Aug-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-12b	E235.SO4	12-Aug-2024	14-Aug-2024	28 days	2 days	✓	14-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-14	E235.SO4	12-Aug-2024	14-Aug-2024	28 days	2 days	✓	14-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-14-B	E235.SO4	12-Aug-2024	14-Aug-2024	28 days	2 days	✓	14-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-TRAVELBLANK	E235.SO4	12-Aug-2024	14-Aug-2024	28 days	3 days	✓	14-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-12b	E372-U	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	21-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-14	E372-U	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	21-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-14-B	E372-U	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	21-Aug-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TRAVELBLANK	E372-U	12-Aug-2024	20-Aug-2024	28 days	9 days	✓	21-Aug-2024	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-12b	E339-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E339-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E339-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVELBLANK	E339-L	12-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12b	E333-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E333-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14-B	E333-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TRAVELBLANK	E333-L	12-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-12b	E336-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-14	E336-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-14-B	E336-L	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	16-Aug-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TRAVELBLANK	E336-L	12-Aug-2024	16-Aug-2024	14 days	5 days	✓	16-Aug-2024	14 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-12b	E421.Cr-L	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-14	E421.Cr-L	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-14-B	E421.Cr-L	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TRAVELBLANK	E421.Cr-L	12-Aug-2024	23-Aug-2024	180 days	12 days	✓	23-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TRAVELBLANK	E509	12-Aug-2024	22-Aug-2024	28 days	10 days	✓	22-Aug-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-12b	E509	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-14	E509	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-14-B	E509	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-12b	E421	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-14	E421	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-14-B	E421	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TRAVELBLANK	E421	12-Aug-2024	23-Aug-2024	180 days	12 days	✓	23-Aug-2024	180 days	12 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-12b	E421.P-L	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-14	E421.P-L	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-14-B	E421.P-L	12-Aug-2024	23-Aug-2024	180 days	11 days	✓	23-Aug-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TRAVELBLANK	E421.P-L	12-Aug-2024	23-Aug-2024	180 days	12 days	✓	23-Aug-2024	180 days	12 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-12b	EF001	12-Aug-2024	----	----	----		15-Aug-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-14	EF001	12-Aug-2024	----	----	----		15-Aug-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-14-B	EF001	12-Aug-2024	----	----	----		15-Aug-2024	----	3 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-12b	E358-L	12-Aug-2024	16-Aug-2024	28 days	4 days	✓	16-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-14	E358-L	12-Aug-2024	16-Aug-2024	28 days	4 days	✓	16-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-14-B	E358-L	12-Aug-2024	16-Aug-2024	28 days	4 days	✓	16-Aug-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-TRAVELBLANK	E358-L	12-Aug-2024	16-Aug-2024	28 days	5 days	✓	16-Aug-2024	28 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-12b	E283	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	17-Aug-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-14	E283	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	17-Aug-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-14-B	E283	12-Aug-2024	16-Aug-2024	14 days	4 days	✓	17-Aug-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TRAVELBLANK	E283	12-Aug-2024	16-Aug-2024	14 days	5 days	✓	17-Aug-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-12b	E290	12-Aug-2024	15-Aug-2024	14 days	3 days	✓	15-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-14	E290	12-Aug-2024	15-Aug-2024	14 days	3 days	✓	15-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-14-B	E290	12-Aug-2024	15-Aug-2024	14 days	3 days	✓	15-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TRAVELBLANK	E290	12-Aug-2024	15-Aug-2024	14 days	4 days	✓	15-Aug-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-12b	E100	12-Aug-2024	15-Aug-2024	28 days	3 days	✓	15-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-14	E100	12-Aug-2024	15-Aug-2024	28 days	3 days	✓	15-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-14-B	E100	12-Aug-2024	15-Aug-2024	28 days	3 days	✓	15-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-TRAVELBLANK	E100	12-Aug-2024	15-Aug-2024	28 days	4 days	✓	15-Aug-2024	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE SW-14-B	E108	12-Aug-2024	15-Aug-2024	0.25 hrs	75 hrs	× EHTR-FM	15-Aug-2024	0.25 hrs	75 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-12b	E108	12-Aug-2024	15-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM	15-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-14	E108	12-Aug-2024	15-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM	15-Aug-2024	0.25 hrs	80 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-TRAVELBLANK	E108	12-Aug-2024	15-Aug-2024	0.25 hrs	90 hrs	× EHTR-FM	15-Aug-2024	0.25 hrs	90 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-12b	E162-L	12-Aug-2024	----	----	----		15-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-14	E162-L	12-Aug-2024	----	----	----		15-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-14-B	E162-L	12-Aug-2024	----	----	----		15-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TRAVELBLANK	E162-L	12-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-12b	E160-L	12-Aug-2024	----	----	----		15-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-14	E160-L	12-Aug-2024	----	----	----		15-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-14-B	E160-L	12-Aug-2024	----	----	----		15-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-TRAVELBLANK	E160-L	12-Aug-2024	----	----	----		15-Aug-2024	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-12b	E420.Cr-L	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14	E420.Cr-L	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14-B	E420.Cr-L	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVELBLANK	E420.Cr-L	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	11 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-12b	E508	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14	E508	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14-B	E508	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TRAVELBLANK	E508	12-Aug-2024	20-Aug-2024	28 days	8 days	✓	20-Aug-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-12b	E420	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14	E420	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14-B	E420	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVELBLANK	E420	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	11 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-12b	E420.P-L	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14	E420.P-L	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-14-B	E420.P-L	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	10 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-TRAVELBLANK	E420.P-L	12-Aug-2024	22-Aug-2024	180 days	10 days	✓	22-Aug-2024	180 days	11 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1601041	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1599222	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1599444	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1597349	0	4	0.0	5.0	✗
Conductivity in Water	E100	1599220	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1613424	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1605419	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1613426	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1600483	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1613425	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1600295	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1597347	0	8	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1597348	0	8	0.0	5.0	✗
pH by Meter	E108	1599221	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1597346	0	4	0.0	5.0	✗
TDS by Gravimetry (Low Level)	E162-L	1596973	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1610112	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1600296	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1605410	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1610114	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1607294	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1610113	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1596976	2	31	6.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1600294	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1601041	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1599222	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1599444	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1597349	1	4	25.0	5.0	✓
Conductivity in Water	E100	1599220	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1613424	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1605419	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1613426	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1600483	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1613425	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1600295	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1597347	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1597348	1	8	12.5	5.0	✓
pH by Meter	E108	1599221	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1597346	1	4	25.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1596973	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1610112	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1600296	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1605410	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1610114	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1607294	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1610113	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1596976	2	31	6.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1600294	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1601041	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1599222	1	9	11.1	5.0	✓
Ammonia by Fluorescence	E298	1599444	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1597349	1	4	25.0	5.0	✓
Conductivity in Water	E100	1599220	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1613424	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1605419	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1613426	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1600483	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1613425	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1600295	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1597347	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1597348	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1597346	1	4	25.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1596973	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1610112	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1600296	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1605410	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1610114	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1607294	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1610113	1	7	14.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1596976	2	31	6.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1600294	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1599444	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1597349	0	4	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1613424	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1605419	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1613426	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1600483	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1613425	1	16	6.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1600295	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1597347	0	8	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1597348	0	8	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1597346	0	4	0.0	5.0	✗
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1610112	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1600296	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1605410	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1610114	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1607294	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1610113	1	7	14.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1600294	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2419654**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 14-Aug-2024 10:34
PO	: PPR-022-3	Date Analysis Commenced	: 14-Aug-2024
C-O-C number	: ----	Issue Date	: 26-Aug-2024 12:05
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1596973)											
WP2419573-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	74.2	76.2	2.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1596976)											
WP2419351-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	6.2	8.0	1.8	Diff <2x LOR	----
Physical Tests (QC Lot: 1596977)											
WP2419660-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	7.9	8.2	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1599220)											
WP2419654-002	SW-14	Conductivity	----	E100	1.0	µS/cm	91.0	92.4	1.53%	10%	----
Physical Tests (QC Lot: 1599221)											
WP2419654-002	SW-14	pH	----	E108	0.10	pH units	7.61	7.59	0.263%	4%	----
Physical Tests (QC Lot: 1599222)											
WP2419654-002	SW-14	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	35.2	35.0	0.570%	20%	----
Physical Tests (QC Lot: 1601041)											
WP2419619-009	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1599444)											
WP2419618-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0100	mg/L	0.664	0.671	1.05%	20%	----
Anions and Nutrients (QC Lot: 1607294)											
WP2419619-015	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0069	0.0059	0.0010	Diff <2x LOR	----
Cyanides (QC Lot: 1600294)											
WP2419346-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1600295)											
WP2419346-001	Anonymous	Cyanide, free	----	E339-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1600296)											
WP2419346-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1600483)											
WP2419184-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.45	1.42	0.03	Diff <2x LOR	----
Total Metals (QC Lot: 1605410)											
WP2419136-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1610112)											
WP2419654-001	SW-12b	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00098	0.00100	0.00002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1610113)											
WP2419654-001	SW-12b	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1610114)											
WP2419654-001	SW-12b	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.131	0.132	0.429%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00013	0.00013	0.000002	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00397	0.00412	3.62%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0109	0.0111	1.79%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000089	0.0000085	0.0000004	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	15.4	14.3	7.42%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00098	0.00100	0.00002	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00046	0.00046	0.0000009	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00104	0.00103	0.00001	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.626	0.624	0.357%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000108	0.000110	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0017	0.0011	0.0006	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	4.47	4.51	0.828%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0586	0.0589	0.630%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000159	0.000165	0.000007	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00172	0.00165	0.00007	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.094	0.097	0.002	Diff <2x LOR	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00024	0.00026	0.00002	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000143	0.000184	0.000041	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	5.43	5.56	2.42%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000013	<0.000010	0.000003	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.79	1.84	2.53%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0379	0.0371	2.13%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1610114) - continued											
WP2419654-001	SW-12b	Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00245	0.00256	0.00011	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000069	0.000069	0.0000003	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00080	0.00080	0.000004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0033	0.0034	0.00006	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00045	0.00045	0.000002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1605419)											
WP2419619-007	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1609842)											
WP2419654-004	SW-TRAVELBLANK	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1613424)											
WP2419654-001	SW-12b	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00049	0.00051	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1613425)											
WP2419654-001	SW-12b	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1613426)											
WP2419654-001	SW-12b	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.114	0.113	0.0970%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00010	0.00011	0.000002	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00384	0.00389	1.22%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0100	0.0106	5.53%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	0.000020	0.00000006	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000055	0.0000063	0.0000009	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	14.4	14.4	0.0908%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	0.00051	0.000010	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00037	0.00036	0.00001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00063	0.00061	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.460	0.460	0.152%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	0.000052	0.000002	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0013	0.0012	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	4.19	4.07	3.02%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0469	0.0470	0.0690%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1613426) - continued											
WP2419654-001	SW-12b	Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000150	0.000137	0.000013	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00128	0.00132	0.00003	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.071	0.073	0.002	Diff <2x LOR	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	<0.00020	0.00020	0.000005	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000145	0.000176	0.000031	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	5.05	5.05	0.0720%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.62	1.65	1.74%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0354	0.0350	0.906%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00185	0.00208	0.00022	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000064	0.000063	0.000002	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00045	0.00046	0.000007	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1596973)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1596976)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1596977)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1599220)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1599222)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1601041)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1597346)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1597347)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1597348)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1597349)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1599444)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1607294)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1600294)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1600295)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1600296)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1600483)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1605410)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1605410) - continued						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1610112)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1610113)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1610114)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	# 0.000011	B
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1610114) - continued						
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1605419)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1609842)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1613424)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1613425)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1613426)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1613426) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1596973)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	98.7	85.0	115	----
Physical Tests (QCLot: 1596976)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	111	85.0	115	----
Physical Tests (QCLot: 1596977)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1599220)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1599221)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1599222)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1601041)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1597346)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.3	90.0	110	----
Anions and Nutrients (QCLot: 1597347)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.1	90.0	110	----
Anions and Nutrients (QCLot: 1597348)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.4	90.0	110	----
Anions and Nutrients (QCLot: 1597349)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.7	90.0	110	----
Anions and Nutrients (QCLot: 1599444)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	94.4	85.0	115	----
Anions and Nutrients (QCLot: 1607294)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.6	80.0	120	----
Cyanides (QCLot: 1600294)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	97.6	80.0	120	----
Cyanides (QCLot: 1600295)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1600296)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1600296) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	87.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1600483)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Metals (QCLot: 1605410)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.6	80.0	120	----
Total Metals (QCLot: 1610112)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	98.6	80.0	120	----
Total Metals (QCLot: 1610113)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	99.4	80.0	120	----
Total Metals (QCLot: 1610114)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.4	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.2	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	95.5	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	98.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.3	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	98.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	98.6	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	96.7	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	96.0	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	92.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	98.9	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	97.2	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	99.7	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.4	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	99.4	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	96.6	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	94.2	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1610114) - continued									
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	95.0	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.1	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	91.2	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.8	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	88.2	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	91.7	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	100	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	102	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.9	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	94.1	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	97.3	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.6	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.3	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.3	80.0	120	----
Dissolved Metals (QCLot: 1613424)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	90.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	88.2	80.0	120	----
Dissolved Metals (QCLot: 1613426)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	89.6	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.9	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	93.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.3	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	91.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	93.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	90.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	87.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	87.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	83.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1613426) - continued									
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	91.3	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	92.6	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	91.7	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	94.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	95.3	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	86.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	88.2	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	89.3	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.6	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	87.6	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	87.0	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	87.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	90.0	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	84.9	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.3	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	92.4	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	86.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.4	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	88.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	93.4	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	88.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	90.4	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	90.3	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	90.0	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1599444)										
WP2419618-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1607294)										
WP2419619-016	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.238 mg/L	0.25 mg/L	95.2	70.0	130	----
Cyanides (QCLot: 1600294)										
WP2419346-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.625 mg/L	0.625 mg/L	100.0	75.0	125	----
Cyanides (QCLot: 1600295)										
WP2419346-001	Anonymous	Cyanide, free	----	E339-L	0.658 mg/L	0.625 mg/L	105	75.0	125	----
Cyanides (QCLot: 1600296)										
WP2419346-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	1.20 mg/L	1.25 mg/L	95.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1600483)										
WP2419184-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.08 mg/L	5 mg/L	102	70.0	130	----
Total Metals (QCLot: 1605410)										
WP2419577-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000932 mg/L	0 mg/L	93.2	70.0	130	----
Total Metals (QCLot: 1610112)										
WP2419654-001	SW-12b	Chromium, total	7440-47-3	E420.Cr-L	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
Total Metals (QCLot: 1610113)										
WP2419654-001	SW-12b	Phosphorus, total	7723-14-0	E420.P-L	9.90 mg/L	10 mg/L	99.0	70.0	130	----
Total Metals (QCLot: 1610114)										
WP2419654-001	SW-12b	Aluminum, total	7429-90-5	E420	0.194 mg/L	0.2 mg/L	97.2	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Barium, total	7440-39-3	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0396 mg/L	0.04 mg/L	99.1	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0112 mg/L	0.01 mg/L	112	70.0	130	----
		Boron, total	7440-42-8	E420	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0199 mg/L	0.02 mg/L	99.6	70.0	130	----
		Copper, total	7440-50-8	E420	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Iron, total	7439-89-6	E420	1.98 mg/L	2 mg/L	99.3	70.0	130	----
		Lead, total	7439-92-1	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0953 mg/L	0.1 mg/L	95.3	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1610114) - continued										
WP2419654-001	SW-12b	Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0198 mg/L	0.02 mg/L	98.9	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0391 mg/L	0.04 mg/L	97.8	70.0	130	----
		Phosphorus, total	7723-14-0	E420	9.90 mg/L	10 mg/L	99.0	70.0	130	----
		Potassium, total	7440-09-7	E420	3.88 mg/L	4 mg/L	97.0	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, total	7440-21-3	E420	9.70 mg/L	10 mg/L	97.0	70.0	130	----
		Silver, total	7440-22-4	E420	0.00391 mg/L	0.004 mg/L	97.7	70.0	130	----
		Sodium, total	7440-23-5	E420	1.81 mg/L	2 mg/L	90.6	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.2 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00428 mg/L	0.004 mg/L	107	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Tin, total	7440-31-5	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0396 mg/L	0.04 mg/L	99.0	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00446 mg/L	0.004 mg/L	112	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Zinc, total	7440-66-6	E420	0.401 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0391 mg/L	0.04 mg/L	97.7	70.0	130	----
Dissolved Metals (QCLot: 1605419)										
WP2419619-008	Anonymous	Mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0 mg/L	100	70.0	130	----
Dissolved Metals (QCLot: 1609842)										
WP2419733-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000929 mg/L	0 mg/L	92.9	70.0	130	----
Dissolved Metals (QCLot: 1613424)										
WP2419654-001	SW-12b	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
Dissolved Metals (QCLot: 1613425)										
WP2419654-001	SW-12b	Phosphorus, dissolved	7723-14-0	E421.P-L	9.85 mg/L	10 mg/L	98.5	70.0	130	----
Dissolved Metals (QCLot: 1613426)										
WP2419654-001	SW-12b	Aluminum, dissolved	7429-90-5	E421	0.183 mg/L	0.2 mg/L	91.6	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00925 mg/L	0.01 mg/L	92.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.101 mg/L	0.1 mg/L	101	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1613426) - continued										
WP2419654-001	SW-12b	Cesium, dissolved	7440-46-2	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0378 mg/L	0.04 mg/L	94.6	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0188 mg/L	0.02 mg/L	94.0	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.75 mg/L	2 mg/L	87.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0964 mg/L	0.1 mg/L	96.4	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0370 mg/L	0.04 mg/L	92.5	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	9.85 mg/L	10 mg/L	98.5	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.72 mg/L	4 mg/L	93.0	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0425 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.28 mg/L	10 mg/L	82.8	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00386 mg/L	0.004 mg/L	96.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.74 mg/L	2 mg/L	87.0	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	18.2 mg/L	20 mg/L	91.0	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0467 mg/L	0.04 mg/L	117	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00393 mg/L	0.004 mg/L	98.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0384 mg/L	0.04 mg/L	96.0	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00396 mg/L	0.004 mg/L	98.9	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0969 mg/L	0.1 mg/L	96.9	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.423 mg/L	0.4 mg/L	106	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0400 mg/L	0.04 mg/L	100	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2419654

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) Requ
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge min
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge mi
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge mi
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge mi
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcha
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests o holidays and for non-routine
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	**Date and Time Required for all**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	**Analysis Request**
Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** EM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-12b	12-Aug-24	9:50	WATER	10		X		6.05	14.8	77.9
	SW-14	12-Aug-24	10:05	WATER	10		X		7.45	20.1	90.1
	SW-14-B	12-Aug-24	10:20	WATER	10		X		6.57	18.9	135.3
	SW-TRAVELBLANK	12-Aug-24	N/A	WATER	9		X		N/A	N/A	N/A

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	AUGUST 13 2024	Time:	Received by:	Date: Aug 14	Time: 1034	Received by:	Time:

16.5°

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2421364**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Sep-2024 09:30
PO	: PPR-022-3	Date Analysis Commenced	: 06-Sep-2024
C-O-C number	: ----	Issue Date	: 17-Sep-2024 15:37
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Metals, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-01	----	----	----	----
				Client sampling date / time	02-Sep-2024 14:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2421364-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.33	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	16.0	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	6.2	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	10.7	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	10.7	----	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	39.7	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	25.2	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	26.4	----	----	----	----
pH	----	E108/WP	0.10	pH units	6.45	----	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	85.4	----	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	2.0	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0137	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	<0.10	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	----	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0239	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	<0.30	----	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0016	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0025	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	----	----	----	----
					Client sampling date / time	02-Sep-2024 14:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421364-001	--------	--------	--------	--------
						Result	----	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0021	----	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		48.0	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.361	----	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00016	----	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00545	----	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00625	----	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000080	----	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		7.43	----	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00082	----	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00082	----	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00018	----	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00058	----	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.865	----	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000164	----	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0012	----	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		1.90	----	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0133	----	----	----	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		<0.000050	----	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00095	----	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.103	----	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00048	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	----	----	----	----
					Client sampling date / time	02-Sep-2024 14:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421364-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000158	----	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		1.88	----	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		0.865	----	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0193	----	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	----	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00011	----	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	----	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00371	----	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	----	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000077	----	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00086	----	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00042	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.333	----	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00015	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00554	----	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00574	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000024	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	----	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000071	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		7.22	----	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00073	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		0.00073	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00016	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	----	----	----	----
					Client sampling date / time	02-Sep-2024 14:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421364-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00056	----	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.782	----	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000162	----	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		<0.0010	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		1.75	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0111	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000056	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00084	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.100	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00049	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000148	----	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.80	----	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		0.823	----	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0192	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	----	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00014	----	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	----	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00340	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	----	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000076	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00065	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0018	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00048	----	----	----	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Field	----	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-01	----	----	----	----
					Client sampling date / time	02-Sep-2024 14:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421364-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2421364**	Page	: 1 of 14
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Sep-2024 09:30
PO	: PPR-022-3	Issue Date	: 17-Sep-2024 15:38
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Anions and Nutrients	QC-1645591-001	----	Ammonia, total (as N)	7664-41-7	E298	0.0052 B mg/L	0.005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	02-Sep-2024	11-Sep-2024	28 days	9 days	✓	11-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-01	E235.Cl-L	02-Sep-2024	10-Sep-2024	28 days	8 days	✓	10-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-01	E235.NO3-L	02-Sep-2024	10-Sep-2024	3 days	8 days	× EHTL	10-Sep-2024	3 days	8 days	× EHTL
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-01	E235.NO2-L	02-Sep-2024	10-Sep-2024	3 days	8 days	× EHTL	10-Sep-2024	3 days	8 days	× EHTL
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-01	E235.SO4	02-Sep-2024	10-Sep-2024	28 days	8 days	✓	10-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	02-Sep-2024	11-Sep-2024	28 days	9 days	✓	12-Sep-2024	28 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E339-L	02-Sep-2024	10-Sep-2024	14 days	8 days	✓	10-Sep-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E333-L	02-Sep-2024	10-Sep-2024	14 days	8 days	✓	10-Sep-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E336-L	02-Sep-2024	10-Sep-2024	14 days	8 days	✓	10-Sep-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-01	E421.Cr-L	02-Sep-2024	11-Sep-2024	180 days	9 days	✓	11-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	02-Sep-2024	11-Sep-2024	28 days	9 days	✓	11-Sep-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	02-Sep-2024	11-Sep-2024	180 days	9 days	✓	11-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	02-Sep-2024	11-Sep-2024	180 days	9 days	✓	11-Sep-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE SW-01	EF001	02-Sep-2024	----	----	----		06-Sep-2024	----	4 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-01	E358-L	02-Sep-2024	06-Sep-2024	28 days	4 days	✓	06-Sep-2024	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	02-Sep-2024	06-Sep-2024	14 days	4 days	✓	07-Sep-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-01	E290	02-Sep-2024	10-Sep-2024	14 days	8 days	✓	10-Sep-2024	14 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-01	E100	02-Sep-2024	10-Sep-2024	28 days	8 days	✓	10-Sep-2024	28 days	8 days	✓
Physical Tests : pH by Meter										
HDPE SW-01	E108	02-Sep-2024	10-Sep-2024	0.25 hrs	197 hrs	× EHTR-FM	10-Sep-2024	0.25 hrs	197 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-01	E162-L	02-Sep-2024	----	----	----		11-Sep-2024	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-01	E160-L	02-Sep-2024	----	----	----		11-Sep-2024	7 days	9 days	× EHT
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	02-Sep-2024	11-Sep-2024	180 days	9 days	✓	11-Sep-2024	180 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	02-Sep-2024	09-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	02-Sep-2024	11-Sep-2024	180 days	9 days	✓	11-Sep-2024	180 days	9 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	02-Sep-2024	11-Sep-2024	180 days	9 days	✓	11-Sep-2024	180 days	9 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1637841	1	11	9.0	5.0	✓
Alkalinity Species by Titration	E290	1644164	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1643029	0	4	0.0	5.0	✗
Conductivity in Water	E100	1644163	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645521	0	4	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1644056	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645519	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1637034	2	8	25.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645520	0	9	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1643027	0	6	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1643028	0	6	0.0	5.0	✗
pH by Meter	E108	1644162	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1643026	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1643258	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1640531	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	0	6	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1643264	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1637841	1	11	9.0	5.0	✓
Alkalinity Species by Titration	E290	1644164	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1643029	1	4	25.0	5.0	✓
Conductivity in Water	E100	1644163	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645521	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1644056	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645519	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1637034	2	8	25.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645520	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1643027	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1643028	1	6	16.6	5.0	✓
pH by Meter	E108	1644162	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1643026	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1643258	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1640531	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1643264	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1637841	1	11	9.0	5.0	✓
Alkalinity Species by Titration	E290	1644164	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	38	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1643029	1	4	25.0	5.0	✓
Conductivity in Water	E100	1644163	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645521	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1644056	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645519	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1637034	2	8	25.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645520	1	9	11.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1643027	1	6	16.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1643028	1	6	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1643026	1	16	6.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1643258	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1640531	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1643264	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1645591	2	38	5.2	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1643029	0	4	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645521	0	4	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1644056	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645519	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1637034	2	8	25.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645520	0	9	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1643027	0	6	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1643028	0	6	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1643026	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1640531	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2421364**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Sep-2024 09:30
PO	: PPR-022-3	Date Analysis Commenced	: 06-Sep-2024
C-O-C number	: ----	Issue Date	: 17-Sep-2024 15:39
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Metals, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1637841)											
WP2421149-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.7	2.3	1.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1643258)											
WP2421361-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	133	128	3.32%	20%	----
Physical Tests (QC Lot: 1643264)											
WP2421361-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	2.7	2.8	0.1	Diff <2x LOR	----
Physical Tests (QC Lot: 1644162)											
WP2421616-002	Anonymous	pH	----	E108	0.10	pH units	5.89	5.81	1.37%	4%	----
Physical Tests (QC Lot: 1644163)											
WP2421616-002	Anonymous	Conductivity	----	E100	2.0	µS/cm	13.2	13.9	0.8	Diff <2x LOR	----
Physical Tests (QC Lot: 1644164)											
WP2421616-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	4.9	5.1	0.2	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1643026)											
WP2421604-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1645591)											
WP2421400-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0638	0.0626	1.76%	20%	----
Anions and Nutrients (QC Lot: 1645747)											
WP2421364-001	SW-01	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0239	0.0233	2.54%	20%	----
Anions and Nutrients (QC Lot: 1653967)											
WP2421364-001	SW-01	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0137	0.0124	0.0013	Diff <2x LOR	----
Cyanides (QC Lot: 1641742)											
VA24C2709-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1641743)											
VA24C2709-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1641744)											
VA24C2709-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1637034)											
WP2421110-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	9.27	9.31	0.443%	20%	----
Organic / Inorganic Carbon (QC Lot: 1644760)											
WP2421528-011	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1640531)											
TY2409578-006	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1644418)											
WP2421035-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00017	0.00016	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.126	0.128	1.68%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.035	0.036	0.0007	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	79.8	79.5	0.358%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00343	0.00347	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0092	0.0095	0.0003	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	50.2	51.0	1.53%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00528	0.00552	4.34%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000134	0.000151	0.000018	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00143	0.00155	0.00012	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.34	1.36	0.954%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00141	0.00138	0.00003	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000081	0.000091	0.000010	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.86	4.95	1.75%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	5.20	5.33	2.42%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0894	0.0908	1.49%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	4.32	4.33	0.02	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1644418) - continued											
WP2421035-001	Anonymous	Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000688	0.000704	2.27%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0162	0.0160	0.0002	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1644056)											
TY2409578-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1645519)											
WP2420283-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	1.1 µg/L	0.0011	0.00004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.33 µg/L	0.00034	0.000007	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	6.02 µg/L	0.00598	0.743%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	50.4 µg/L	0.0525	4.08%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	102 µg/L	0.103	0.211%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	72200 µg/L	74.0	2.45%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.11 µg/L	0.00011	0.000006	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	2.30 µg/L	0.00228	0.802%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<10 µg/L	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	51.1 µg/L	0.0515	0.861%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	40100 µg/L	40.0	0.190%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.16 µg/L	0.00016	0.000002	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	3.08 µg/L	0.00316	2.39%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	2.85 µg/L	0.00287	0.00001	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	91 µg/L	0.107	0.016	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	11400 µg/L	11.5	1.05%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	2.17 µg/L	0.00213	1.74%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.725 µg/L	0.000649	11.1%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1645519) - continued											
WP2420283-001	Anonymous	Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8460 µg/L	8.56	1.26%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	38200 µg/L	38.5	0.716%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	301 µg/L	0.312	3.46%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	62100 µg/L	62.2	0.195%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.010 µg/L	0.000010	0.0000005	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	2.96 µg/L	0.00296	0.0368%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	3.09 µg/L	0.00300	0.00009	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<1.0 µg/L	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1637841)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1643258)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1643264)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1644163)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1644164)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1643026)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1643027)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1643028)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1643029)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1645591)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	# 0.0052	B
Anions and Nutrients (QCLot: 1645747)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1653967)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1641742)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1641743)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1641744)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1637034)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1644760)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1644760) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1640531)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1644418)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1644418) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1644419)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1644420)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1644056)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1645519)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1645519) - continued						
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1645520)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1645521)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1637841)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	103	85.0	115	----
Physical Tests (QCLot: 1643258)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.2	85.0	115	----
Physical Tests (QCLot: 1643264)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1644162)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1644163)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.5	90.0	110	----
Physical Tests (QCLot: 1644164)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1643026)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1643027)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1643028)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.0	90.0	110	----
Anions and Nutrients (QCLot: 1643029)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 1645591)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	106	85.0	115	----
Anions and Nutrients (QCLot: 1645747)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.2	80.0	120	----
Anions and Nutrients (QCLot: 1653967)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.8	85.0	115	----
Cyanides (QCLot: 1641742)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	94.1	80.0	120	----
Cyanides (QCLot: 1641743)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.4	80.0	120	----
Cyanides (QCLot: 1641744)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1641744) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.3	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1637034)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	115	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1644760)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	108	80.0	120	----
Total Metals (QCLot: 1640531)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	102	80.0	120	----
Total Metals (QCLot: 1644418)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	97.2	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	94.1	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	91.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.0	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.3	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	94.6	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	92.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	93.5	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	83.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	93.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	95.0	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	94.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	94.9	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	91.3	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	86.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	87.6	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1644418) - continued									
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	90.1	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.8	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	84.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.2	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.1	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	92.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	93.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	94.7	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	88.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.7	80.0	120	----
Total Metals (QCLot: 1644419)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	94.6	80.0	120	----
Total Metals (QCLot: 1644420)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.2	80.0	120	----
Dissolved Metals (QCLot: 1645519)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	100	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	93.7	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	94.0	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.6	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	93.5	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	93.1	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	92.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	93.4	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.2	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	97.7	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	90.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	95.4	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1645519) - continued									
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	93.1	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	94.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	86.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	96.6	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	86.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	95.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	92.4	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	86.6	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	93.5	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.9	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.9	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	89.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.2	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	94.3	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	92.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	107	80.0	120	----
Dissolved Metals (QCLot: 1645521)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1643026)										
WP2421604-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	108 mg/L	100 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1645591)										
WP2421400-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.104 mg/L	0.1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1645747)										
WP2421410-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1653967)										
WP2421364-001	SW-01	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Cyanides (QCLot: 1641742)										
VA24C2709-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.117 mg/L	0.125 mg/L	93.8	75.0	125	----
Cyanides (QCLot: 1641743)										
VA24C2709-001	Anonymous	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1641744)										
VA24C2709-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.206 mg/L	0.25 mg/L	82.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1637034)										
WP2421110-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1644760)										
WP2421528-012	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.16 mg/L	5 mg/L	103	70.0	130	----
Total Metals (QCLot: 1640531)										
TY2409592-001	Anonymous	Mercury, total	7439-97-6	E508	0.000107 mg/L	0 mg/L	107	70.0	130	----
Total Metals (QCLot: 1644418)										
WP2421035-001	Anonymous	Aluminum, total	7429-90-5	E420	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00917 mg/L	0.01 mg/L	91.7	70.0	130	----
		Boron, total	7440-42-8	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0109 mg/L	0.01 mg/L	109	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Copper, total	7440-50-8	E420	0.0187 mg/L	0.02 mg/L	93.7	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1644418) - continued										
WP2421035-001	Anonymous	Iron, total	7439-89-6	E420	1.81 mg/L	2 mg/L	90.4	70.0	130	----
		Lead, total	7439-92-1	E420	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Lithium, total	7439-93-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0370 mg/L	0.04 mg/L	92.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.0 mg/L	10 mg/L	110	70.0	130	----
		Potassium, total	7440-09-7	E420	4.37 mg/L	4 mg/L	109	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0368 mg/L	0.04 mg/L	92.1	70.0	130	----
		Silicon, total	7440-21-3	E420	9.19 mg/L	10 mg/L	91.9	70.0	130	----
		Silver, total	7440-22-4	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.4 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Tin, total	7440-31-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.371 mg/L	0.4 mg/L	92.7	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1644056)										
TY2409578-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000987 mg/L	0 mg/L	98.7	70.0	130	----
Dissolved Metals (QCLot: 1645519)										
WP2420283-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.207 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0219 mg/L	0.02 mg/L	109	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00905 mg/L	0.01 mg/L	90.5	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0198 mg/L	0.02 mg/L	98.8	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0190 mg/L	0.02 mg/L	94.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.96 mg/L	2 mg/L	97.9	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1645519) - continued										
WP2420283-001	Anonymous	Lead, dissolved	7439-92-1	E421	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0948 mg/L	0.1 mg/L	94.8	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0380 mg/L	0.04 mg/L	95.0	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.7 mg/L	10 mg/L	117	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0462 mg/L	0.04 mg/L	116	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.70 mg/L	10 mg/L	97.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00282 mg/L	0.004 mg/L	70.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00366 mg/L	0.004 mg/L	91.4	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00374 mg/L	0.004 mg/L	93.4	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.392 mg/L	0.4 mg/L	98.0	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----

WP2421364

6.4°C

Environmental Division
Winnipeg
Work Order Reference
WP2421364

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☒ PDF ☐ EXCEL ☐ EDD (DIGITAL)	☐ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☒ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weeken holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TAT:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer
		Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-01	2-Sep-24	14:00	WATER	9	X			6.33	16	36.4

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Sept 3 2024	Time:	Received by:	Date:	Time:	Received by:	Time: 9:30

11.2

GC720, MM060, CN092

CERTIFICATE OF ANALYSIS

Work Order	: **WP2421413**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2024 09:27
PO	: PPR-022-3	Date Analysis Commenced	: 06-Sep-2024
C-O-C number	: ----	Issue Date	: 18-Sep-2024 15:13
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
						WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.08	7.10	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		15.7	9.53	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.4	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		39.0	62.5	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		39.0	62.5	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		84.2	128	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		42.8	65.3	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		43.7	63.8	----	----	----
pH	----	E108/WP	0.10	pH units		7.41	7.68	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		65.5	97.8	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		7.3	1.7	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0380	0.0221	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.24	0.54	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0962	0.133	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0993	0.135	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0031	0.0022	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0410	0.0332	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.58	1.56	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0011	0.0011	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
						WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		21.8	16.6	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.210	0.0646	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00339	0.00301	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0109	0.00896	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000024	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.1	19.0	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000029	0.000015	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00061	0.00051	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00061	0.00051	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00020	0.00015	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00088	<0.00050	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.594	1.04	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000165	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0023	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.27	3.97	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0378	0.0192	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000195	0.000308	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00078	0.00064	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.900	1.30	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00245	0.00337	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
						WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000112	0.000093	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.14	6.60	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000016	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.43	1.95	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0269	0.0424	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0101	0.00343	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000193	0.000170	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00121	0.00103	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		Not Detected	Not Detected	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00040	0.00022	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0350	0.0520	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00336	0.00292	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00884	0.00851	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.8	19.3	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	0.000012	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00027	0.00046	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00011	0.00013	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00070	0.00043	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.371	0.949	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000098	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0024	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.23	4.16	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0314	0.0167	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000229	0.000311	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00057	0.00064	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.859	1.31	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00197	0.00342	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000139	0.000093	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.81	6.69	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.43	1.93	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0273	0.0422	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.67	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00164	0.00256	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000178	0.000160	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00072	0.00077	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00039	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Laboratory	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2421413**	Page	: 1 of 16
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2024 09:27
PO	: PPR-022-3	Issue Date	: 18-Sep-2024 15:13
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Anions and Nutrients	QC-1645591-001	----	Ammonia, total (as N)	7664-41-7	E298	0.0052 B mg/L	0.005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL02	E298	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-04	E235.Cl-L	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL02	E235.Cl-L	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-04	E235.NO3-L	04-Sep-2024	06-Sep-2024	3 days	2 days	✓	06-Sep-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL02	E235.NO3-L	04-Sep-2024	06-Sep-2024	3 days	2 days	✓	06-Sep-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-04	E235.NO2-L	04-Sep-2024	06-Sep-2024	3 days	2 days	✓	06-Sep-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL02	E235.NO2-L	04-Sep-2024	06-Sep-2024	3 days	2 days	✓	06-Sep-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-04	E235.SO4	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-GL02	E235.SO4	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-04	E372-U	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	12-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL02	E372-U	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	12-Sep-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E336-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.Cr-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-04	E509	04-Sep-2024	16-Sep-2024	28 days	12 days	✓	16-Sep-2024	28 days	12 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL02	E509	04-Sep-2024	16-Sep-2024	28 days	12 days	✓	16-Sep-2024	28 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-04	E421	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL02	E421	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.P-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-04	EF001	04-Sep-2024	----	----	----		09-Sep-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-GL02	EF001	04-Sep-2024	----	----	----		09-Sep-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	04-Sep-2024	07-Sep-2024	28 days	3 days	✓	07-Sep-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL02	E358-L	04-Sep-2024	07-Sep-2024	28 days	3 days	✓	07-Sep-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-04	E283	04-Sep-2024	09-Sep-2024	14 days	5 days	✓	10-Sep-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-GL02	E283	04-Sep-2024	09-Sep-2024	14 days	5 days	✓	10-Sep-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-04	E290	04-Sep-2024	06-Sep-2024	14 days	2 days	✓	06-Sep-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-GL02	E290	04-Sep-2024	06-Sep-2024	14 days	2 days	✓	06-Sep-2024	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-04	E100	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL02	E100	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE SW-04	E108	04-Sep-2024	06-Sep-2024	0.25 hrs	55 hrs	× EHTR-FM	06-Sep-2024	0.25 hrs	55 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL02	E108	04-Sep-2024	06-Sep-2024	0.25 hrs	55 hrs	× EHTR-FM	06-Sep-2024	0.25 hrs	55 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-04	E162-L	04-Sep-2024	----	----	----		09-Sep-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL02	E162-L	04-Sep-2024	----	----	----		09-Sep-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-04	E160-L	04-Sep-2024	----	----	----		09-Sep-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-GL02	E160-L	04-Sep-2024	----	----	----		09-Sep-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL02	E508	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL02	E420.P-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1640287	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1640040	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639931	0	5	0.0	5.0	✗
Conductivity in Water	E100	1640041	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645530	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645527	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645531	0	14	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639932	0	5	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639933	0	5	0.0	5.0	✗
pH by Meter	E108	1640039	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1639928	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	0	6	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1639954	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1640287	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1640040	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639931	1	5	20.0	5.0	✓
Conductivity in Water	E100	1640041	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645530	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645527	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645531	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639932	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639933	1	5	20.0	5.0	✓
pH by Meter	E108	1640039	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1639928	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1639954	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1640287	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1640040	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639931	1	5	20.0	5.0	✓
Conductivity in Water	E100	1640041	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645530	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645527	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645531	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639932	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639933	1	5	20.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1639928	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1639954	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1645591	2	23	8.7	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1639931	0	5	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645530	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645527	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645531	0	14	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639932	0	5	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639933	0	5	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1639928	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2421413**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2024 09:27
PO	: PPR-022-3	Date Analysis Commenced	: 06-Sep-2024
C-O-C number	: ----	Issue Date	: 18-Sep-2024 15:13
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1639952)											
WP2421234-005	Anonymous	Solids, total dissolved [TDS]	----	E162-L	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1639954)											
WP2421234-005	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1640039)											
WP2421380-001	Anonymous	pH	----	E108	0.10	pH units	8.36	8.37	0.120%	4%	----
Physical Tests (QC Lot: 1640040)											
WP2421380-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	404	406	0.642%	20%	----
Physical Tests (QC Lot: 1640041)											
WP2421380-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	2000	2010	0.499%	10%	----
Physical Tests (QC Lot: 1640287)											
WP2421234-005	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1639928)											
WP2421411-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	6.64	6.65	0.0627%	20%	----
Anions and Nutrients (QC Lot: 1645591)											
WP2421400-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0638	0.0626	1.76%	20%	----
Anions and Nutrients (QC Lot: 1645747)											
WP2421364-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0239	0.0233	2.54%	20%	----
Anions and Nutrients (QC Lot: 1653991)											
WP2421403-007	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0094	0.0137	0.0043	Diff <2x LOR	----
Cyanides (QC Lot: 1641742)											
VA24C2709-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1641743)											
VA24C2709-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1641744)											
VA24C2709-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1638341)											
WP2421048-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	4.13	3.84	0.29	Diff <2x LOR	----
Total Metals (QC Lot: 1641051)											
WP2421302-003	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1644418)											
WP2421035-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00017	0.00016	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.126	0.128	1.68%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.035	0.036	0.0007	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	79.8	79.5	0.358%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00343	0.00347	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0092	0.0095	0.0003	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	50.2	51.0	1.53%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00528	0.00552	4.34%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000134	0.000151	0.000018	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00143	0.00155	0.00012	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.34	1.36	0.954%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00141	0.00138	0.00003	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000081	0.000091	0.000010	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.86	4.95	1.75%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	5.20	5.33	2.42%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0894	0.0908	1.49%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	4.32	4.33	0.02	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1644418) - continued											
WP2421035-001	Anonymous	Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000688	0.000704	2.27%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0162	0.0160	0.0002	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1645527)											
WP2421411-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.170	0.175	3.12%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00010	0.00010	0.0000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00331	0.00322	2.57%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0755	0.0750	0.705%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000023	0.000030	0.000007	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.032	0.033	0.001	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000200	0.0000138	0.0000063	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	70.4	71.4	1.46%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000022	0.000025	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00045	0.00046	0.000009	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00213	0.00230	7.49%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.344	0.338	1.65%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000466	0.000474	0.000007	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0101	0.0103	2.22%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	24.9	25.4	2.04%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0442	0.0442	0.0731%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000637	0.000656	2.99%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00225	0.00235	0.00010	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.128	0.133	0.005	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.96	2.96	0.0426%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00197	0.00212	7.51%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000108	0.000109	0.000001	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8.39	8.06	4.01%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	12.1	12.4	2.27%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.159	0.158	0.572%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1645527) - continued											
WP2421411-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.85	2.73	0.11	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00512	0.00543	5.90%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000439	0.000444	1.02%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00331	0.00336	0.00004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0026	0.0026	0.00006	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00088	0.00092	0.00003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1649802)											
WP2421450-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1639952)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1639954)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1640040)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1640041)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1640287)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1639928)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1639931)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1639932)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1639933)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1645591)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	# 0.0052	B
Anions and Nutrients (QCLot: 1645747)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1653991)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1641742)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1641743)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1641744)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1638341)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1641051)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1641051) - continued						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1644418)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1644418) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1644419)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1644420)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1645527)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1645527) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1645530)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1645531)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1649802)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1639952)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.5	85.0	115	----
Physical Tests (QCLot: 1639954)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1640039)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1640040)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.8	85.0	115	----
Physical Tests (QCLot: 1640041)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	96.8	90.0	110	----
Physical Tests (QCLot: 1640287)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1639928)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.4	90.0	110	----
Anions and Nutrients (QCLot: 1639931)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1639932)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1639933)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1645591)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	106	85.0	115	----
Anions and Nutrients (QCLot: 1645747)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.2	80.0	120	----
Anions and Nutrients (QCLot: 1653991)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	103	85.0	115	----
Cyanides (QCLot: 1641742)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	94.1	80.0	120	----
Cyanides (QCLot: 1641743)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.4	80.0	120	----
Cyanides (QCLot: 1641744)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1641744) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.3	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1638341)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	106	80.0	120	----
Total Metals (QCLot: 1641051)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	104	80.0	120	----
Total Metals (QCLot: 1644418)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	97.2	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	94.1	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	91.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.0	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.3	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	94.6	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	92.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	93.5	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	83.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	93.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	95.0	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	94.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	94.9	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	91.3	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	86.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	87.6	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	90.1	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1644418) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	84.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.2	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.1	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	92.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	93.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	94.7	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	88.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.7	80.0	120	----
Total Metals (QCLot: 1644419)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	94.6	80.0	120	----
Total Metals (QCLot: 1644420)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Dissolved Metals (QCLot: 1645527)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	94.2	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	95.6	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	91.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.3	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	84.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	92.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	93.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	94.2	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	94.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	95.3	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	94.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	88.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	87.0	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	95.4	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	92.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1645527) - continued									
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	92.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	93.8	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.1	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	84.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	92.9	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	84.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	93.1	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	93.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	84.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.7	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.9	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	94.9	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.4	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.5	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	90.7	80.0	120	----
Dissolved Metals (QCLot: 1645530)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	94.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	93.8	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	89.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1639928)										
WP2421411-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	95.1 mg/L	100 mg/L	95.1	75.0	125	----
Anions and Nutrients (QCLot: 1645591)										
WP2421400-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.104 mg/L	0.1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1645747)										
WP2421410-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1653991)										
WP2421403-007	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0947 mg/L	0.1 mg/L	94.7	75.0	125	----
Cyanides (QCLot: 1641742)										
VA24C2709-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.117 mg/L	0.125 mg/L	93.8	75.0	125	----
Cyanides (QCLot: 1641743)										
VA24C2709-001	Anonymous	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1641744)										
VA24C2709-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.206 mg/L	0.25 mg/L	82.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1638341)										
WP2421048-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.80 mg/L	5 mg/L	95.9	70.0	130	----
Total Metals (QCLot: 1641051)										
WP2421413-001	SW-04	Mercury, total	7439-97-6	E508	0.000110 mg/L	0 mg/L	110	70.0	130	----
Total Metals (QCLot: 1644418)										
WP2421035-001	Anonymous	Aluminum, total	7429-90-5	E420	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00917 mg/L	0.01 mg/L	91.7	70.0	130	----
		Boron, total	7440-42-8	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0109 mg/L	0.01 mg/L	109	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Copper, total	7440-50-8	E420	0.0187 mg/L	0.02 mg/L	93.7	70.0	130	----
		Iron, total	7439-89-6	E420	1.81 mg/L	2 mg/L	90.4	70.0	130	----
		Lead, total	7439-92-1	E420	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Lithium, total	7439-93-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1644418) - continued										
WP2421035-001	Anonymous	Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0370 mg/L	0.04 mg/L	92.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.0 mg/L	10 mg/L	110	70.0	130	----
		Potassium, total	7440-09-7	E420	4.37 mg/L	4 mg/L	109	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0368 mg/L	0.04 mg/L	92.1	70.0	130	----
		Silicon, total	7440-21-3	E420	9.19 mg/L	10 mg/L	91.9	70.0	130	----
		Silver, total	7440-22-4	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.4 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Tin, total	7440-31-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.371 mg/L	0.4 mg/L	92.7	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1645527)										
WP2421411-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00948 mg/L	0.01 mg/L	94.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.096 mg/L	0.1 mg/L	96.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00402 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0193 mg/L	0.02 mg/L	96.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.87 mg/L	2 mg/L	93.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0966 mg/L	0.1 mg/L	96.6	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0376 mg/L	0.04 mg/L	94.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1645527) - continued										
WP2421411-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421	11.6 mg/L	10 mg/L	116	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.22 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0438 mg/L	0.04 mg/L	109	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.87 mg/L	10 mg/L	88.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00325 mg/L	0.004 mg/L	81.2	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0438 mg/L	0.04 mg/L	110	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00390 mg/L	0.004 mg/L	97.5	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.397 mg/L	0.4 mg/L	99.2	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1649802)										
WP2421450-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000874 mg/L	0 mg/L	87.4	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	**Analysis Request**
Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** CB/AP/EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-04	4-Sep-24	14:00	WATER	9	X			6.08	15.74	85
	SW-GL02	4-Sep-24	13:15	WATER	9	X			7.1	9.53	130

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL S
Released by: CB	SepL5 2024	Time:	Received by:	Date: SEP 06 2024	Time: 09:27	Receive

15.5°C

Environmental Division
Winnipeg
Work Order Reference
WP2421413

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross					COC receipt info complete	☑
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white	2x500, 2x100	Orange/black	
Purple/white	4x100	Dark blue/white	
Red/white	4x125	Black/white	
Dark green/white	2x60	Brown/white	
Grey/white	✓	Pink/white	
Yellow/black	4x40	Beige/white	
Light blue/white	✓	Other (specify)	

Comments:

15.5°C, no ice

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			Client Contacts	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			Post-committing	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			Action Required?	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL | | MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To |-| YES | NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report |-| YES | NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: |-| EMAIL | | MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-04	4-Sep-24	14:00	WATER	9	X			6.08	15.74	85
	SW-GL02	4-Sep-24	13:15	WATER	9	X			7.1	9.53	130

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL S
Released by: CB	Sept.5 2024	Time:	Received by:	Date: SEP 0 6 2024	Time: 09:27	Receive

15.5°C

Environmental Division
Winnipeg
Work Order Reference
WP2421413

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross				COC receipt info complete	☑	
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white	2x500, 2x100	Orange/black	
Purple/white	4x100	Dark blue/white	
Red/white	4x125	Black/white	
Dark green/white	2x60	Brown/white	
Grey/white	✓	Pink/white	
Yellow/black	4x40	Beige/white	
Light blue/white	✓	Other (specify)	

Comments:

15.5°C, no ice

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			Client Contacts	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			Post-committing	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			Action Required?	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	: **WP2421413**	Page	: 1 of 7
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2024 09:27
PO	: PPR-022-3	Date Analysis Commenced	: 06-Sep-2024
C-O-C number	: ----	Issue Date	: 18-Sep-2024 15:13
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
						WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.08	7.10	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		15.7	9.53	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.4	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		39.0	62.5	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		39.0	62.5	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm		84.2	128	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		42.8	65.3	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		43.7	63.8	----	----	----
pH	----	E108/WP	0.10	pH units		7.41	7.68	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		65.5	97.8	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		7.3	1.7	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0380	0.0221	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.24	0.54	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0962	0.133	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0993	0.135	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0031	0.0022	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0410	0.0332	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.58	1.56	----	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		0.0011	0.0011	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
						WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		21.8	16.6	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.210	0.0646	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00339	0.00301	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0109	0.00896	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000024	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		12.1	19.0	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000029	0.000015	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00061	0.00051	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00061	0.00051	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00020	0.00015	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00088	<0.00050	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.594	1.04	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000165	<0.000050	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0023	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.27	3.97	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0378	0.0192	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000195	0.000308	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00078	0.00064	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.900	1.30	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00245	0.00337	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
						WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000112	0.000093	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.14	6.60	----	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000016	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.43	1.95	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0269	0.0424	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0101	0.00343	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000193	0.000170	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00121	0.00103	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		Not Detected	Not Detected	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00040	0.00022	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0350	0.0520	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00336	0.00292	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00884	0.00851	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		<0.000050	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.8	19.3	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	0.000012	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00027	0.00046	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00011	0.00013	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00070	0.00043	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.371	0.949	----	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000098	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0024	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.23	4.16	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0314	0.0167	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000229	0.000311	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00057	0.00064	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.859	1.31	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00197	0.00342	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000139	0.000093	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.81	6.69	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.43	1.93	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0273	0.0422	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	0.67	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00164	0.00256	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000178	0.000160	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00072	0.00077	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00039	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-04	SW-GL02	----	----	----
					Client sampling date / time	04-Sep-2024 14:00	04-Sep-2024 14:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421413-001	WP2421413-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Laboratory	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2421413**	Page	: 1 of 16
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2024 09:27
PO	: PPR-022-3	Issue Date	: 18-Sep-2024 15:13
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Anions and Nutrients	QC-1645591-001	----	Ammonia, total (as N)	7664-41-7	E298	0.0052 B mg/L	0.005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL02	E298	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	12 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-04	E235.Cl-L	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL02	E235.Cl-L	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-04	E235.NO3-L	04-Sep-2024	06-Sep-2024	3 days	2 days	✓	06-Sep-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL02	E235.NO3-L	04-Sep-2024	06-Sep-2024	3 days	2 days	✓	06-Sep-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-04	E235.NO2-L	04-Sep-2024	06-Sep-2024	3 days	2 days	✓	06-Sep-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL02	E235.NO2-L	04-Sep-2024	06-Sep-2024	3 days	2 days	✓	06-Sep-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-04	E235.SO4	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-GL02	E235.SO4	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-04	E372-U	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	12-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-GL02	E372-U	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	12-Sep-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E339-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E336-L	04-Sep-2024	10-Sep-2024	14 days	6 days	✓	10-Sep-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.Cr-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-04	E509	04-Sep-2024	16-Sep-2024	28 days	12 days	✓	16-Sep-2024	28 days	12 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-GL02	E509	04-Sep-2024	16-Sep-2024	28 days	12 days	✓	16-Sep-2024	28 days	12 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-04	E421	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL02	E421	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.P-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-04	EF001	04-Sep-2024	----	----	----		09-Sep-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-GL02	EF001	04-Sep-2024	----	----	----		09-Sep-2024	----	5 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	04-Sep-2024	07-Sep-2024	28 days	3 days	✓	07-Sep-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-GL02	E358-L	04-Sep-2024	07-Sep-2024	28 days	3 days	✓	07-Sep-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-04	E283	04-Sep-2024	09-Sep-2024	14 days	5 days	✓	10-Sep-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE										
SW-GL02	E283	04-Sep-2024	09-Sep-2024	14 days	5 days	✓	10-Sep-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-04	E290	04-Sep-2024	06-Sep-2024	14 days	2 days	✓	06-Sep-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-GL02	E290	04-Sep-2024	06-Sep-2024	14 days	2 days	✓	06-Sep-2024	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-04	E100	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL02	E100	04-Sep-2024	06-Sep-2024	28 days	2 days	✓	06-Sep-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE SW-04	E108	04-Sep-2024	06-Sep-2024	0.25 hrs	55 hrs	× EHTR-FM	06-Sep-2024	0.25 hrs	55 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL02	E108	04-Sep-2024	06-Sep-2024	0.25 hrs	55 hrs	× EHTR-FM	06-Sep-2024	0.25 hrs	55 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-04	E162-L	04-Sep-2024	----	----	----		09-Sep-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL02	E162-L	04-Sep-2024	----	----	----		09-Sep-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-04	E160-L	04-Sep-2024	----	----	----		09-Sep-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-GL02	E160-L	04-Sep-2024	----	----	----		09-Sep-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL02	E508	04-Sep-2024	11-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL02	E420.P-L	04-Sep-2024	11-Sep-2024	180 days	7 days	✓	11-Sep-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1640287	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1640040	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639931	0	5	0.0	5.0	✗
Conductivity in Water	E100	1640041	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645530	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645527	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645531	0	14	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639932	0	5	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639933	0	5	0.0	5.0	✗
pH by Meter	E108	1640039	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1639928	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	0	6	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1639954	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1640287	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1640040	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639931	1	5	20.0	5.0	✓
Conductivity in Water	E100	1640041	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645530	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645527	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645531	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639932	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639933	1	5	20.0	5.0	✓
pH by Meter	E108	1640039	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1639928	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1639954	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1640287	1	8	12.5	5.0	✓
Alkalinity Species by Titration	E290	1640040	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1645591	2	23	8.7	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639931	1	5	20.0	5.0	✓
Conductivity in Water	E100	1640041	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645530	1	3	33.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645527	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645531	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639932	1	5	20.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639933	1	5	20.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1639928	1	11	9.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	1	4	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	1	6	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1639954	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1645591	2	23	8.7	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1639931	0	5	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645530	0	3	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645527	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645531	0	14	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1641743	1	16	6.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639932	0	5	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639933	0	5	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1639928	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1644419	0	4	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1641744	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1644418	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1645747	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1644420	0	6	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1641742	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2421413**	Page	: 1 of 17
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 06-Sep-2024 09:27
PO	: PPR-022-3	Date Analysis Commenced	: 06-Sep-2024
C-O-C number	: ----	Issue Date	: 18-Sep-2024 15:13
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1639952)											
WP2421234-005	Anonymous	Solids, total dissolved [TDS]	----	E162-L	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1639954)											
WP2421234-005	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1640039)											
WP2421380-001	Anonymous	pH	----	E108	0.10	pH units	8.36	8.37	0.120%	4%	----
Physical Tests (QC Lot: 1640040)											
WP2421380-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	404	406	0.642%	20%	----
Physical Tests (QC Lot: 1640041)											
WP2421380-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	2000	2010	0.499%	10%	----
Physical Tests (QC Lot: 1640287)											
WP2421234-005	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1639928)											
WP2421411-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	6.64	6.65	0.0627%	20%	----
Anions and Nutrients (QC Lot: 1645591)											
WP2421400-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0638	0.0626	1.76%	20%	----
Anions and Nutrients (QC Lot: 1645747)											
WP2421364-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0239	0.0233	2.54%	20%	----
Anions and Nutrients (QC Lot: 1653991)											
WP2421403-007	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0094	0.0137	0.0043	Diff <2x LOR	----
Cyanides (QC Lot: 1641742)											
VA24C2709-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1641743)											
VA24C2709-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1641744)											
VA24C2709-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1638341)											
WP2421048-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	4.13	3.84	0.29	Diff <2x LOR	----
Total Metals (QC Lot: 1641051)											
WP2421302-003	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1644418)											
WP2421035-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00017	0.00016	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.126	0.128	1.68%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.035	0.036	0.0007	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	79.8	79.5	0.358%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00343	0.00347	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0092	0.0095	0.0003	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	50.2	51.0	1.53%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00528	0.00552	4.34%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000134	0.000151	0.000018	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00143	0.00155	0.00012	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.34	1.36	0.954%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00141	0.00138	0.00003	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000081	0.000091	0.000010	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.86	4.95	1.75%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	5.20	5.33	2.42%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0894	0.0908	1.49%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	4.32	4.33	0.02	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1644418) - continued											
WP2421035-001	Anonymous	Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000688	0.000704	2.27%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0162	0.0160	0.0002	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1645527)											
WP2421411-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.170	0.175	3.12%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00010	0.00010	0.0000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00331	0.00322	2.57%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0755	0.0750	0.705%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000023	0.000030	0.000007	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.032	0.033	0.001	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000200	0.0000138	0.0000063	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	70.4	71.4	1.46%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000022	0.000025	0.000002	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00045	0.00046	0.000009	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00213	0.00230	7.49%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.344	0.338	1.65%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000466	0.000474	0.000007	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0101	0.0103	2.22%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	24.9	25.4	2.04%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0442	0.0442	0.0731%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000637	0.000656	2.99%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00225	0.00235	0.00010	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.128	0.133	0.005	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	2.96	2.96	0.0426%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00197	0.00212	7.51%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000108	0.000109	0.000001	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8.39	8.06	4.01%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	12.1	12.4	2.27%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.159	0.158	0.572%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1645527) - continued											
WP2421411-001	Anonymous	Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.85	2.73	0.11	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00512	0.00543	5.90%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000439	0.000444	1.02%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00331	0.00336	0.00004	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0026	0.0026	0.00006	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00088	0.00092	0.00003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1649802)											
WP2421450-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1639952)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1639954)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1640040)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1640041)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1640287)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1639928)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1639931)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1639932)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1639933)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1645591)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	# 0.0052	B
Anions and Nutrients (QCLot: 1645747)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1653991)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1641742)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1641743)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1641744)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1638341)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1641051)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1641051) - continued						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1644418)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1644418) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1644419)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1644420)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1645527)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1645527) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1645530)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1645531)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1649802)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1639952)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.5	85.0	115	----
Physical Tests (QCLot: 1639954)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1640039)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1640040)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	99.8	85.0	115	----
Physical Tests (QCLot: 1640041)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	96.8	90.0	110	----
Physical Tests (QCLot: 1640287)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1639928)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.4	90.0	110	----
Anions and Nutrients (QCLot: 1639931)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1639932)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1639933)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1645591)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	106	85.0	115	----
Anions and Nutrients (QCLot: 1645747)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	96.2	80.0	120	----
Anions and Nutrients (QCLot: 1653991)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	103	85.0	115	----
Cyanides (QCLot: 1641742)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	94.1	80.0	120	----
Cyanides (QCLot: 1641743)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	96.4	80.0	120	----
Cyanides (QCLot: 1641744)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1641744) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	85.3	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1638341)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	106	80.0	120	----
Total Metals (QCLot: 1641051)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	104	80.0	120	----
Total Metals (QCLot: 1644418)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	97.2	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	94.1	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.2	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	91.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.0	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.3	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	94.6	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	92.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	93.5	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	83.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	93.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	95.0	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	101	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	94.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	94.9	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	91.3	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	105	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.2	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	86.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	87.6	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	90.1	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1644418) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	84.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.2	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.1	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	92.8	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	93.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	94.7	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	88.7	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.7	80.0	120	----
Total Metals (QCLot: 1644419)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	94.6	80.0	120	----
Total Metals (QCLot: 1644420)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	105	80.0	120	----
Dissolved Metals (QCLot: 1645527)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	94.2	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	95.6	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	91.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	98.3	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	84.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	92.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	93.2	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	94.2	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	94.8	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	95.3	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	94.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	88.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	87.0	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	95.4	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	92.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1645527) - continued									
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	92.5	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	93.8	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.1	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	84.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	92.9	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	84.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	93.1	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	93.4	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	84.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.7	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.9	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	94.9	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.4	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.5	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	90.7	80.0	120	----
Dissolved Metals (QCLot: 1645530)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	94.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	93.8	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	89.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1639928)										
WP2421411-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	95.1 mg/L	100 mg/L	95.1	75.0	125	----
Anions and Nutrients (QCLot: 1645591)										
WP2421400-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.104 mg/L	0.1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1645747)										
WP2421410-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1653991)										
WP2421403-007	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0947 mg/L	0.1 mg/L	94.7	75.0	125	----
Cyanides (QCLot: 1641742)										
VA24C2709-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.117 mg/L	0.125 mg/L	93.8	75.0	125	----
Cyanides (QCLot: 1641743)										
VA24C2709-001	Anonymous	Cyanide, free	----	E339-L	0.129 mg/L	0.125 mg/L	103	75.0	125	----
Cyanides (QCLot: 1641744)										
VA24C2709-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.206 mg/L	0.25 mg/L	82.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1638341)										
WP2421048-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.80 mg/L	5 mg/L	95.9	70.0	130	----
Total Metals (QCLot: 1641051)										
WP2421413-001	SW-04	Mercury, total	7439-97-6	E508	0.000110 mg/L	0 mg/L	110	70.0	130	----
Total Metals (QCLot: 1644418)										
WP2421035-001	Anonymous	Aluminum, total	7429-90-5	E420	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00917 mg/L	0.01 mg/L	91.7	70.0	130	----
		Boron, total	7440-42-8	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00395 mg/L	0.004 mg/L	98.8	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0109 mg/L	0.01 mg/L	109	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0401 mg/L	0.04 mg/L	100	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Copper, total	7440-50-8	E420	0.0187 mg/L	0.02 mg/L	93.7	70.0	130	----
		Iron, total	7439-89-6	E420	1.81 mg/L	2 mg/L	90.4	70.0	130	----
		Lead, total	7439-92-1	E420	0.0186 mg/L	0.02 mg/L	93.0	70.0	130	----
		Lithium, total	7439-93-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1644418) - continued										
WP2421035-001	Anonymous	Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0370 mg/L	0.04 mg/L	92.6	70.0	130	----
		Phosphorus, total	7723-14-0	E420	11.0 mg/L	10 mg/L	110	70.0	130	----
		Potassium, total	7440-09-7	E420	4.37 mg/L	4 mg/L	109	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0368 mg/L	0.04 mg/L	92.1	70.0	130	----
		Silicon, total	7440-21-3	E420	9.19 mg/L	10 mg/L	91.9	70.0	130	----
		Silver, total	7440-22-4	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.4 mg/L	20 mg/L	102	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0388 mg/L	0.04 mg/L	97.0	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00382 mg/L	0.004 mg/L	95.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Tin, total	7440-31-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.371 mg/L	0.4 mg/L	92.7	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 1645527)										
WP2421411-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0221 mg/L	0.02 mg/L	110	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00948 mg/L	0.01 mg/L	94.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.096 mg/L	0.1 mg/L	96.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00402 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0395 mg/L	0.04 mg/L	98.8	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0193 mg/L	0.02 mg/L	96.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0187 mg/L	0.02 mg/L	93.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.87 mg/L	2 mg/L	93.7	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0195 mg/L	0.02 mg/L	97.4	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0966 mg/L	0.1 mg/L	96.6	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0376 mg/L	0.04 mg/L	94.0	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1645527) - continued										
WP2421411-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421	11.6 mg/L	10 mg/L	116	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.22 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0438 mg/L	0.04 mg/L	109	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.87 mg/L	10 mg/L	88.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00325 mg/L	0.004 mg/L	81.2	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0438 mg/L	0.04 mg/L	110	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00383 mg/L	0.004 mg/L	95.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00390 mg/L	0.004 mg/L	97.5	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.397 mg/L	0.4 mg/L	99.2	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0415 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1649802)										
WP2421450-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000874 mg/L	0 mg/L	87.4	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	**Date and Time Required for all E&P TATs:**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	**Analysis Request**
Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** CB/AP/EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-04	4-Sep-24	14:00	WATER	9	X			6.08	15.74	85
	SW-GL02	4-Sep-24	13:15	WATER	9	X			7.1	9.53	130

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL S
Released by: CB	SepL5 2024	Time:	Received by:	Date: SEP 06 2024	Time: 09:27	Receive

15.5°C

Environmental Division
Winnipeg
Work Order Reference
WP2421413

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross					COC receipt info complete	☑
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white	2x500, 2x100	Orange/black	
Purple/white	4x100	Dark blue/white	
Red/white	4x125	Black/white	
Dark green/white	2x60	Brown/white	
Grey/white	✓	Pink/white	
Yellow/black	4x40	Beige/white	
Light blue/white	✓	Other (specify)	

Comments:

15.5°C, no ice

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			Client Contacts	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			Post-committing	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			Action Required?	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL | | MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To |-| YES | NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report |-| YES | NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: |-| EMAIL | | MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-04	4-Sep-24	14:00	WATER	9	X			6.08	15.74	85
	SW-GL02	4-Sep-24	13:15	WATER	9	X			7.1	9.53	130

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL S
Released by: CB	Sept.5 2024	Time:	Received by:	Date: SEP 0 6 2024	Time: 09:27	Receive

15.5°C

Environmental Division
Winnipeg
Work Order Reference
WP2421413

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross				COC receipt info complete	☑	
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white	2x500, 2x100	Orange/black	
Purple/white	4x100	Dark blue/white	
Red/white	4x125	Black/white	
Dark green/white	2x60	Brown/white	
Grey/white	✓	Pink/white	
Yellow/black	4x40	Beige/white	
Light blue/white	✓	Other (specify)	

Comments:

15.5°C, no ice

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			Client Contacts	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			Post-committing	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			Action Required?	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2421465**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Sep-2024 10:41
PO	: PPR-022-3	Date Analysis Commenced	: 06-Sep-2024
C-O-C number	: ----	Issue Date	: 16-Sep-2024 15:27
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08	SW-08A	SW-11	SW-TR
					Client sampling date / time	03-Sep-2024 12:00	03-Sep-2024 12:40	03-Sep-2024 13:25	03-Sep-2024 14:05	03-Sep-2024 10:10
						WP2421465-001	WP2421465-002	WP2421465-003	WP2421465-004	WP2421465-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.24	6.61	7.08	6.77	3.74
Temperature, field	----	EF001/WP	0.10	°C		7.35	13.1	13.7	11.3	13.9
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		2.8	3.0	3.1	12.7	18.7
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		139	41.8	39.8	78.5	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		139	41.8	39.8	78.5	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		258	89.8	85.4	164	31.4
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		125	43.0	42.5	81.3	10.9
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		132	49.2	48.0	87.8	11.6
pH	----	E108/WP	0.10	pH units		8.06	7.56	7.52	7.56	4.58
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		188	87.2	80.5	166	89.6
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		2.5	11.1	11.6	20.9	2.8
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0273	0.0370	0.0376	0.0676	0.0125
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.53	0.45	0.33	2.90	0.16
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0512	0.115	0.108	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0531	0.118	0.111	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0019	0.0028	0.0026	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0538	0.0426	0.0434	0.135	0.0152
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		2.64	0.81	0.66	0.65	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08	SW-08A	SW-11	SW-TR
					Client sampling date / time	03-Sep-2024 12:00	03-Sep-2024 12:40	03-Sep-2024 13:25	03-Sep-2024 14:05	03-Sep-2024 10:10
						WP2421465-001	WP2421465-002	WP2421465-003	WP2421465-004	WP2421465-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0011	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		14.6	21.8	22.1	39.7	53.7
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.266	0.468	0.332	0.280	0.648
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00012	0.00019
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00295	0.00343	0.00354	0.00747	0.00665
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0268	0.0124	0.0114	0.0183	0.00571
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	0.000026	0.000023	0.000032	0.000029
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000126	0.0000058	<0.0000050	0.0000274	0.0000144
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		38.7	13.5	13.2	22.4	3.10
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000056	0.000038	<0.000010	0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00082	0.00110	0.00081	0.00117	0.00088
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		0.00082	0.00110	0.00081	0.00117	0.00088
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00035	0.00030	0.00025	0.00104	0.00040
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00157	0.00118	0.00118	0.00115	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.772	0.931	0.800	2.24	1.06
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000078	0.000304	0.000244	0.000239	0.000486
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0067	0.0031	0.0030	0.0040	0.0019
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		8.54	3.77	3.65	7.73	0.926
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0814	0.0416	0.0330	0.282	0.00853
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000748	0.000234	0.000195	0.000287	<0.000050
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00155	0.00120	0.00107	0.00278	0.00100
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.052	0.041	0.037	0.091	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		0.052	<0.050	<0.050	0.091	Not Detected
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		2.71	1.02	0.964	1.20	<0.050
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00126	0.00258	0.00220	0.00141	0.00020

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08	SW-08A	SW-11	SW-TR
					Client sampling date / time	03-Sep-2024 12:00	03-Sep-2024 12:40	03-Sep-2024 13:25	03-Sep-2024 14:05	03-Sep-2024 10:10
						WP2421465-001	WP2421465-002	WP2421465-003	WP2421465-004	WP2421465-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000088	0.000122	0.000149	0.000183	0.000213
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		6.96	3.01	2.72	4.75	2.58
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000053	<0.000010	0.000011	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		4.34	1.86	1.76	5.52	0.863
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0588	0.0305	0.0277	0.0537	0.0154
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.22	<0.50	<0.50	0.54	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	<0.00020	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00020	0.00015
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0104	0.0209	0.0144	0.0102	0.00737
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00140	<0.00010	<0.00010	0.00016	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.00108	0.000268	0.000222	0.000105	0.000079
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00176	0.00161	0.00138	0.00189	0.00088
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	0.0237	0.0036	<0.0030	0.0041
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00040	0.00046	0.00040	0.00108	0.00039
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0917	0.0298	0.0455	0.199	0.630
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00011	0.00018
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00313	0.00312	0.00339	0.00607	0.00711
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0262	0.00939	0.00929	0.0171	0.00591
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000026	0.000026
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	<0.000050
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	Not Detected
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000130	<0.0000050	<0.0000050	0.0000084	0.0000170
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		36.3	11.6	11.5	20.8	2.90
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	Not Detected	<0.000010	<0.000010	0.000011
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00048	0.00034	0.00029	0.00106	0.00084
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00106	0.00084
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00023	<0.00010	0.00010	0.00092	0.00041

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-03	SW-08	SW-08A	SW-11	SW-TR
					Client sampling date / time	03-Sep-2024 12:00	03-Sep-2024 12:40	03-Sep-2024 13:25	03-Sep-2024 14:05	03-Sep-2024 10:10
						WP2421465-001	WP2421465-002	WP2421465-003	WP2421465-004	WP2421465-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00107	0.00078	0.00082	0.00092	0.00056
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.523	0.338	0.408	1.22	1.05
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	0.000088	0.000116	0.000105	0.000438
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0052	0.0014	0.0014	0.0026	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		8.28	3.42	3.35	7.14	0.884
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0759	0.0324	0.0337	0.258	0.00921
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000748	0.000216	0.000218	0.000320	0.000054
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00134	0.00063	0.00061	0.00253	0.00091
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		0.038	<0.030	<0.030	0.050	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		2.84	0.932	0.890	1.17	<0.050
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00126	0.00180	0.00177	0.00142	<0.00020
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000222 RRV	0.000149	0.000174	0.000282	0.000226
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.34	2.02	2.07	4.33	2.66
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.000010	Not Detected	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		4.02	1.58	1.55	4.83	0.789
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0574	0.0280	0.0269	0.0522	0.0150
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.33	0.79	0.66	0.70	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		<0.00020	<0.00020	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00024	0.00016
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	<0.00010	<0.00010	Not Detected	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00416	0.00121	0.00209	0.00683	0.00680
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00136	<0.00010	<0.00010	0.00016	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.00107	0.000234	0.000183	0.000100	0.000069
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00118	0.00069	0.00076	0.00118	0.00079
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0015	0.0012	<0.0010	0.0012	0.0046
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00038	0.00032	0.00036	0.00121	0.00042
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-03	SW-08	SW-08A	SW-11	SW-TR
					Client sampling date / time	03-Sep-2024 12:00	03-Sep-2024 12:40	03-Sep-2024 13:25	03-Sep-2024 14:05	03-Sep-2024 10:10
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421465-001	WP2421465-002	WP2421465-003	WP2421465-004	WP2421465-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	DUP-01	BLANK-01	----	----	----
				Client sampling date / time	03-Sep-2024 12:45	03-Sep-2024 12:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2421465-006	WP2421465-007	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.61	----	----	----	----
Temperature, field	----	EF001/WP	0.10	°C	13.1	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	3.0	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	42.0	<1.0	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	42.0	<1.0	----	----	----
Conductivity	----	E100/WP	1.0	µS/cm	89.9	Not Detected	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	45.3	<0.50	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	48.2	<0.50	----	----	----
pH	----	E108/WP	0.10	pH units	7.70	5.55	----	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	94.2	<3.0	----	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	10.0	<1.0	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0360	<0.0050	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.46	Not Detected	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.116	<0.0050	----	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.119	<0.0051	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0029	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0420	<0.0020	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.81	<0.30	----	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0018	<0.0010	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	0.0012	<0.0010	----	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	0.0016	<0.0010	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	DUP-01	BLANK-01	----	----	----
				Client sampling date / time	03-Sep-2024 12:45	03-Sep-2024 12:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	WP2421465-006	WP2421465-007	--------	--------	--------
					Result	Result	----	----	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	23.0	<0.50	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	0.335	<0.0030	----	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L	<0.00010	Not Detected	----	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L	0.00339	<0.00010	----	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L	0.0118	Not Detected	----	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L	0.000027	Not Detected	----	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L	<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L	<0.010	Not Detected	----	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L	<0.0000050	Not Detected	----	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L	13.2	Not Detected	----	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L	0.000036	Not Detected	----	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L	0.00081	<0.00010	----	----	----
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L	0.00081	Not Detected	----	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L	0.00025	Not Detected	----	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L	0.00108	Not Detected	----	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L	0.760	Not Detected	----	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L	0.000238	Not Detected	----	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L	0.0031	<0.0010	----	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L	3.71	<0.0050	----	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L	0.0397	Not Detected	----	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L	<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L	0.000209	Not Detected	----	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L	0.00098	Not Detected	----	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L	<0.030	<0.030	----	----	----
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L	<0.050	<0.050	----	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L	0.970	Not Detected	----	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L	0.00233	Not Detected	----	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L	0.000061	<0.000050	----	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L	2.84	<0.10	----	----	----

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP-01	BLANK-01	----	----	----
					Client sampling date / time	03-Sep-2024 12:45	03-Sep-2024 12:50	----	----	----
						WP2421465-006	WP2421465-007	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.80	<0.050	----	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0300	Not Detected	----	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	Not Detected	----	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00011	Not Detected	----	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0144	Not Detected	----	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000266	Not Detected	----	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00136	<0.00050	----	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	Not Detected	----	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00048	Not Detected	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0478	<0.0010	----	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00332	<0.00010	----	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00961	Not Detected	----	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	Not Detected	----	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	----	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	Not Detected	----	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	Not Detected	----	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		12.4	<0.050	----	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00032	<0.00010	----	----	----
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	Not Detected	----	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00010	Not Detected	----	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00076	Not Detected	----	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.420	Not Detected	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	DUP-01	BLANK-01	----	----	----
					Client sampling date / time	03-Sep-2024 12:45	03-Sep-2024 12:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421465-006	WP2421465-007	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000118	Not Detected	----	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0014	Not Detected	----	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.48	<0.0050	----	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0327	<0.00010	----	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000212	Not Detected	----	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00057	Not Detected	----	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	Not Detected	----	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.929	Not Detected	----	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00176	Not Detected	----	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000176 RRV	<0.000050	----	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.06	Not Detected	----	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	----	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.55	Not Detected	----	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0286	Not Detected	----	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	----	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	----	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	Not Detected	----	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00231	Not Detected	----	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	Not Detected	----	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000217	Not Detected	----	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00076	Not Detected	----	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00038	Not Detected	----	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2421465**	Page	: 1 of 30
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Sep-2024 10:41
PO	: PPR-022-3	Issue Date	: 16-Sep-2024 15:27
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-MRG3-1645553 002	----	Silver, dissolved	7440-22-4	E421	68.9 % MES	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) BLANK-01	E298	03-Sep-2024	12-Sep-2024	28 days	9 days	✓	12-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DUP-01	E298	03-Sep-2024	12-Sep-2024	28 days	9 days	✓	12-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	03-Sep-2024	12-Sep-2024	28 days	9 days	✓	12-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	03-Sep-2024	12-Sep-2024	28 days	9 days	✓	12-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08A	E298	03-Sep-2024	12-Sep-2024	28 days	9 days	✓	12-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	03-Sep-2024	12-Sep-2024	28 days	9 days	✓	12-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	03-Sep-2024	12-Sep-2024	28 days	9 days	✓	12-Sep-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE BLANK-01	E235.Cl-L	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DUP-01	E235.Cl-L	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-03	E235.Cl-L	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-08	E235.Cl-L	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-08A	E235.Cl-L	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-11	E235.Cl-L	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-TR	E235.Cl-L	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE BLANK-01	E235.NO3-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DUP-01	E235.NO3-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-03	E235.NO3-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-08	E235.NO3-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-08A	E235.NO3-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-11	E235.NO3-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-TR	E235.NO3-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE BLANK-01	E235.NO2-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DUP-01	E235.NO2-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-03	E235.NO2-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-08	E235.NO2-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-08A	E235.NO2-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-11	E235.NO2-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO2-L	03-Sep-2024	06-Sep-2024	3 days	3 days	✓	06-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
BLANK-01	E235.SO4	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
DUP-01	E235.SO4	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-03	E235.SO4	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-08	E235.SO4	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-08A	E235.SO4	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-11	E235.SO4	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-TR	E235.SO4	03-Sep-2024	06-Sep-2024	28 days	3 days	✓	06-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
BLANK-01	E372-U	03-Sep-2024	10-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
DUP-01	E372-U	03-Sep-2024	10-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-03	E372-U	03-Sep-2024	10-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08	E372-U	03-Sep-2024	10-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-08A	E372-U	03-Sep-2024	10-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-11	E372-U	03-Sep-2024	10-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid)										
SW-TR	E372-U	03-Sep-2024	10-Sep-2024	28 days	7 days	✓	11-Sep-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E339-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E339-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E339-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E339-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E339-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E339-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E333-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E333-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
BLANK-01	E336-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DUP-01	E336-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E336-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-TR	E336-L	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	11-Sep-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) BLANK-01	E421.Cr-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) DUP-01	E421.Cr-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-03	E421.Cr-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08	E421.Cr-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-08A	E421.Cr-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-11	E421.Cr-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TR	E421.Cr-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BLANK-01	E509	03-Sep-2024	16-Sep-2024	28 days	13 days	✓	16-Sep-2024	28 days	13 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
DUP-01	E509	03-Sep-2024	16-Sep-2024	28 days	13 days	✓	16-Sep-2024	28 days	13 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-03	E509	03-Sep-2024	16-Sep-2024	28 days	13 days	✓	16-Sep-2024	28 days	13 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08	E509	03-Sep-2024	16-Sep-2024	28 days	13 days	✓	16-Sep-2024	28 days	13 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-08A	E509	03-Sep-2024	16-Sep-2024	28 days	13 days	✓	16-Sep-2024	28 days	13 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-11	E509	03-Sep-2024	16-Sep-2024	28 days	13 days	✓	16-Sep-2024	28 days	13 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-TR	E509	03-Sep-2024	16-Sep-2024	28 days	13 days	✓	16-Sep-2024	28 days	13 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BLANK-01	E421	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP-01	E421	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08A	E421	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-11	E421	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) BLANK-01	E421.P-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DUP-01	E421.P-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-03	E421.P-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08	E421.P-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-08A	E421.P-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-11	E421.P-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TR	E421.P-L	03-Sep-2024	11-Sep-2024	180 days	8 days	✓	11-Sep-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE DUP-01	EF001	03-Sep-2024	----	----	----		09-Sep-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE SW-03	EF001	03-Sep-2024	----	----	----		09-Sep-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE SW-08	EF001	03-Sep-2024	----	----	----		09-Sep-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE SW-08A	EF001	03-Sep-2024	----	----	----		09-Sep-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE SW-11	EF001	03-Sep-2024	----	----	----		09-Sep-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE SW-TR	EF001	03-Sep-2024	----	----	----		09-Sep-2024	----	6 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) BLANK-01	E358-L	03-Sep-2024	07-Sep-2024	28 days	4 days	✓	07-Sep-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) DUP-01	E358-L	03-Sep-2024	07-Sep-2024	28 days	4 days	✓	07-Sep-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-03	E358-L	03-Sep-2024	07-Sep-2024	28 days	4 days	✓	07-Sep-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	03-Sep-2024	07-Sep-2024	28 days	4 days	✓	07-Sep-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	03-Sep-2024	07-Sep-2024	28 days	4 days	✓	07-Sep-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-11	E358-L	03-Sep-2024	07-Sep-2024	28 days	4 days	✓	07-Sep-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TR	E358-L	03-Sep-2024	07-Sep-2024	28 days	4 days	✓	07-Sep-2024	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE BLANK-01	E283	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	12-Sep-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE DUP-01	E283	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	12-Sep-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-03	E283	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	12-Sep-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	12-Sep-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08A	E283	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	12-Sep-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-11	E283	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	12-Sep-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	03-Sep-2024	11-Sep-2024	14 days	8 days	✓	12-Sep-2024	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE BLANK-01	E290	03-Sep-2024	09-Sep-2024	14 days	6 days	✓	09-Sep-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DUP-01	E290	03-Sep-2024	09-Sep-2024	14 days	6 days	✓	09-Sep-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-03	E290	03-Sep-2024	09-Sep-2024	14 days	6 days	✓	09-Sep-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08	E290	03-Sep-2024	09-Sep-2024	14 days	6 days	✓	09-Sep-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08A	E290	03-Sep-2024	09-Sep-2024	14 days	6 days	✓	09-Sep-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-11	E290	03-Sep-2024	09-Sep-2024	14 days	6 days	✓	09-Sep-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TR	E290	03-Sep-2024	09-Sep-2024	14 days	6 days	✓	09-Sep-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE BLANK-01	E100	03-Sep-2024	09-Sep-2024	28 days	6 days	✓	09-Sep-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE DUP-01	E100	03-Sep-2024	09-Sep-2024	28 days	6 days	✓	09-Sep-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-03	E100	03-Sep-2024	09-Sep-2024	28 days	6 days	✓	09-Sep-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08	E100	03-Sep-2024	09-Sep-2024	28 days	6 days	✓	09-Sep-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08A	E100	03-Sep-2024	09-Sep-2024	28 days	6 days	✓	09-Sep-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-11	E100	03-Sep-2024	09-Sep-2024	28 days	6 days	✓	09-Sep-2024	28 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-TR	E100	03-Sep-2024	09-Sep-2024	28 days	6 days	✓	09-Sep-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE SW-08A	E108	03-Sep-2024	09-Sep-2024	0.25 hrs	140 hrs	× EHTR-FM	09-Sep-2024	0.25 hrs	140 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-11	E108	03-Sep-2024	09-Sep-2024	0.25 hrs	140 hrs	× EHTR-FM	09-Sep-2024	0.25 hrs	140 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08	E108	03-Sep-2024	09-Sep-2024	0.25 hrs	141 hrs	× EHTR-FM	09-Sep-2024	0.25 hrs	141 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-03	E108	03-Sep-2024	09-Sep-2024	0.25 hrs	142 hrs	× EHTR-FM	09-Sep-2024	0.25 hrs	142 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE BLANK-01	E108	03-Sep-2024	09-Sep-2024	0.25 hrs	146 hrs	× EHTR-FM	09-Sep-2024	0.25 hrs	146 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DUP-01	E108	03-Sep-2024	09-Sep-2024	0.25 hrs	147 hrs	× EHTR-FM	09-Sep-2024	0.25 hrs	147 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-TR	E108	03-Sep-2024	09-Sep-2024	0.25 hrs	149 hrs	× EHTR-FM	09-Sep-2024	0.25 hrs	149 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE BLANK-01	E162-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DUP-01	E162-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-03	E162-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08	E162-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08A	E162-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-11	E162-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TR	E162-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE BLANK-01	E160-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE DUP-01	E160-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-03	E160-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-08	E160-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-08A	E160-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-11	E160-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-TR	E160-L	03-Sep-2024	----	----	----		09-Sep-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) BLANK-01	E420.Cr-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DUP-01	E420.Cr-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) BLANK-01	E508	03-Sep-2024	11-Sep-2024	28 days	8 days	✓	11-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DUP-01	E508	03-Sep-2024	11-Sep-2024	28 days	8 days	✓	11-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	03-Sep-2024	11-Sep-2024	28 days	8 days	✓	11-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	03-Sep-2024	11-Sep-2024	28 days	8 days	✓	11-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	03-Sep-2024	11-Sep-2024	28 days	8 days	✓	11-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	03-Sep-2024	11-Sep-2024	28 days	8 days	✓	11-Sep-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	03-Sep-2024	11-Sep-2024	28 days	8 days	✓	11-Sep-2024	28 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BLANK-01	E420	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP-01	E420	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) BLANK-01	E420.P-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DUP-01	E420.P-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	03-Sep-2024	10-Sep-2024	180 days	7 days	✓	10-Sep-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1646158	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1640200	2	30	6.6	5.0	✓
Ammonia by Fluorescence	E298	1646727	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639960	1	9	11.1	5.0	✓
Conductivity in Water	E100	1640199	2	31	6.4	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645554	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645553	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645555	0	15	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1646022	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639961	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639962	1	9	11.1	5.0	✓
pH by Meter	E108	1640198	2	40	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1639959	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	2	32	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1642830	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1646020	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1642827	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1644223	2	23	8.7	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1642825	0	15	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1639954	2	26	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1646021	1	10	10.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1646158	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1640200	2	30	6.6	5.0	✓
Ammonia by Fluorescence	E298	1646727	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639960	1	9	11.1	5.0	✓
Conductivity in Water	E100	1640199	2	31	6.4	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645554	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645553	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645555	1	15	6.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1646022	1	10	10.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639961	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639962	1	9	11.1	5.0	✓
pH by Meter	E108	1640198	2	40	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1639959	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	2	32	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1642830	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1646020	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1642827	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1644223	2	23	8.7	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1642825	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1639954	2	26	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1646021	1	10	10.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1646158	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1640200	2	30	6.6	5.0	✓
Ammonia by Fluorescence	E298	1646727	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1639960	1	9	11.1	5.0	✓
Conductivity in Water	E100	1640199	2	31	6.4	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645554	1	7	14.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645553	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645555	1	15	6.6	5.0	✓
Free Cyanide (Low Level)	E339-L	1646022	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639961	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639962	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1639959	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1639952	2	32	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1642830	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1646020	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1642827	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1644223	2	23	8.7	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1642825	1	15	6.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1639954	2	26	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1646021	1	10	10.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1646727	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1639960	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1645554	0	7	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1649802	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1645553	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1638341	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1645555	0	15	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1646022	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1639961	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1639962	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1639959	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1642830	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1646020	1	15	6.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1641051	1	18	5.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1642827	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1644223	2	23	8.7	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1642825	0	15	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1646021	1	10	10.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2421465**	Page	: 1 of 18
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 05-Sep-2024 10:41
PO	: PPR-022-3	Date Analysis Commenced	: 06-Sep-2024
C-O-C number	: ----	Issue Date	: 16-Sep-2024 15:27
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 7		
No. of samples analysed	: 7		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1639952)											
WP2421234-005	Anonymous	Solids, total dissolved [TDS]	----	E162-L	3.0	mg/L	<3.0	<3.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1639953)											
WP2421465-006	DUP-01	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	94.2	96.8	2.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1639954)											
WP2421234-005	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1639955)											
WP2421465-005	SW-TR	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	2.8	2.5	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1640198)											
WP2421448-001	Anonymous	pH	----	E108	0.10	pH units	7.50	7.45	0.669%	4%	----
Physical Tests (QC Lot: 1640199)											
WP2421448-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	3190	3180	0.314%	10%	----
Physical Tests (QC Lot: 1640200)											
WP2421448-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	31.0	31.0	0.00%	20%	----
Physical Tests (QC Lot: 1640996)											
WP2421483-001	Anonymous	pH	----	E108	0.10	pH units	8.39	8.41	0.238%	4%	----
Physical Tests (QC Lot: 1640997)											
WP2421483-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	832	824	0.966%	10%	----
Physical Tests (QC Lot: 1640998)											
WP2421483-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	420	421	0.142%	20%	----
Physical Tests (QC Lot: 1646158)											
WP2421443-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.4	4.0	0.4	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1639959)											
WP2421470-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	12.9	12.9	0.224%	20%	----
Anions and Nutrients (QC Lot: 1639960)											
WP2421470-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	61.9	61.5	0.665%	20%	----
Anions and Nutrients (QC Lot: 1639961)											
WP2421470-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1639962)											
WP2421470-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1644223)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1644223) - continued											
WP2421240-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0400	mg/L	21.2	17.7	18.0%	20%	----
Anions and Nutrients (QC Lot: 1644230)											
WP2421465-005	SW-TR	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0152	0.0150	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1646727)											
WP2421448-004	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0250	mg/L	0.831	0.838	0.887%	20%	----
Cyanides (QC Lot: 1646020)											
WP2421465-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1646021)											
WP2421465-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1646022)											
WP2421465-001	SW-03	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1638341)											
WP2421048-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	4.13	3.84	0.29	Diff <2x LOR	----
Total Metals (QC Lot: 1641051)											
WP2421302-003	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1642827)											
WP2421416-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0122	0.0124	0.0002	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.0232	0.0225	3.34%	20%	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	8.17	8.08	1.12%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0114	0.0117	2.82%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	1.01	1.06	4.83%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	203	204	0.499%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000100	0.000096	0.000004	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00611	0.00613	0.395%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00079	0.00079	0.000002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.160	0.161	0.619%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0400	0.0412	2.71%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	177	174	1.84%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1642827) - continued											
WP2421416-001	Anonymous	Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0160	0.0162	0.857%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00400	0.00390	2.47%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.0322	0.0326	1.30%	20%	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	30.8	31.3	1.78%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00858	0.00862	0.497%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000253	0.000289	0.000036	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	6.64	6.76	1.80%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	70.8	70.0	1.13%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.684	0.662	3.36%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	392	396	1.22%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00015	<0.00010	0.00005	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	0.00034	0.00004	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00166	0.00173	4.05%	20%	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000133	0.000139	4.56%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0191	0.0192	0.00007	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1645553)											
WP2421458-006	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0602	0.0559	7.41%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00044	0.00044	0.000005	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00081	0.00098	0.00016	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0267	0.0265	0.968%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	0.000180	0.000200	0.000020	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.252	0.252	0.326%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000198	0.0000136	0.0000062	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	27.5	27.8	1.11%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000060	0.000057	0.000003	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	0.00053	0.00003	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1645553) - continued											
WP2421458-006	Anonymous	Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00628	0.00644	2.48%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.326	0.325	0.340%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000157	0.000160	0.000003	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0100	0.0098	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	18.3	18.3	0.276%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0331	0.0333	0.706%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000414	0.000387	0.000028	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00148	0.00157	0.00009	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	8.31	8.50	2.20%	20%	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	20.7	21.0	1.02%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.0167	0.0168	0.884%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000493	0.000475	0.000018	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.38	2.42	1.91%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.000030	0.000014	0.000016	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	59.4	58.9	0.760%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.121	0.115	4.85%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	50.0	42.9	15.3%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	0.00061	0.00058	0.00003	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00384	0.00373	2.72%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000043	0.000037	0.000006	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0335	0.0333	0.514%	20%	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00115	0.00115	0.000005	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1649802)											
WP2421450-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1639952)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1639953)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1639954)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1639955)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1640199)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1640200)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1640997)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1640998)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1646158)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1639959)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1639960)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1639961)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1639962)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1644223)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1644230)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1646727)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1646020)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1646020) - continued						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1646021)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1646022)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1638341)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1641051)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1642825)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1642827)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1642827) - continued						
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1642830)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1645553)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1645553) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1645554)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1645555)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1649802)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1639952)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.5	85.0	115	----
Physical Tests (QCLot: 1639953)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	96.1	85.0	115	----
Physical Tests (QCLot: 1639954)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1639955)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1640198)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1640199)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1640200)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	111	85.0	115	----
Physical Tests (QCLot: 1640996)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1640997)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1640998)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1646158)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1639959)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 1639960)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1639961)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1639962)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1644223)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	91.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1644230)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	92.4	80.0	120	----
Anions and Nutrients (QCLot: 1646727)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	102	85.0	115	----
Cyanides (QCLot: 1646020)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	90.3	80.0	120	----
Cyanides (QCLot: 1646021)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.8	80.0	120	----
Cyanides (QCLot: 1646022)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	94.2	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1638341)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	106	80.0	120	----
Total Metals (QCLot: 1641051)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	104	80.0	120	----
Total Metals (QCLot: 1642825)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	94.3	80.0	120	----
Total Metals (QCLot: 1642827)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	92.2	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	92.7	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	91.3	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.8	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.4	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	99.6	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	94.5	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	98.8	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	92.4	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	93.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	91.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	92.3	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	91.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	104	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	106	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	96.5	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1642827) - continued									
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	93.8	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	90.9	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	91.3	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	94.3	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	93.4	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	94.3	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	96.4	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	91.8	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	85.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	99.0	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.8	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	98.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	92.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	102	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.6	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	95.2	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	91.1	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	98.8	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	96.8	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	94.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	90.3	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	89.2	80.0	120	----
Total Metals (QCLot: 1642830)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	93.8	80.0	120	----
Dissolved Metals (QCLot: 1645553)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.5	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	95.9	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	95.1	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.5	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	87.9	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	93.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	93.5	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1645553) - continued									
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	98.1	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	93.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	94.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.7	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	90.0	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	94.3	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	96.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	94.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.4	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	85.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.4	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	# 68.9	80.0	120	MES
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.0	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	89.7	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	90.1	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	94.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	82.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.4	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.3	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.2	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.8	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	96.2	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	93.2	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	93.2	80.0	120	----
Dissolved Metals (QCLot: 1645554)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	89.8	80.0	120	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1639959)										
WP2421470-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1639960)										
WP2421470-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1639961)										
WP2421470-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.59 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1639962)										
WP2421470-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.515 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1644223)										
WP2421240-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.231 mg/L	0.25 mg/L	92.6	70.0	130	----
Anions and Nutrients (QCLot: 1644230)										
WP2421465-006	DUP-01	Phosphorus, total	7723-14-0	E372-U	0.234 mg/L	0.25 mg/L	93.8	70.0	130	----
Anions and Nutrients (QCLot: 1646727)										
WP2421448-004	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Cyanides (QCLot: 1646020)										
WP2421465-001	SW-03	Cyanide, strong acid dissociable (Total)	----	E333-L	0.212 mg/L	0.25 mg/L	84.7	75.0	125	----
Cyanides (QCLot: 1646021)										
WP2421465-001	SW-03	Cyanide, weak acid dissociable	----	E336-L	0.119 mg/L	0.125 mg/L	95.3	75.0	125	----
Cyanides (QCLot: 1646022)										
WP2421465-001	SW-03	Cyanide, free	----	E339-L	0.124 mg/L	0.125 mg/L	99.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1638341)										
WP2421048-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.80 mg/L	5 mg/L	95.9	70.0	130	----
Total Metals (QCLot: 1641051)										
WP2421413-001	Anonymous	Mercury, total	7439-97-6	E508	0.000110 mg/L	0 mg/L	110	70.0	130	----
Total Metals (QCLot: 1642827)										
WP2421416-001	Anonymous	Aluminum, total	7429-90-5	E420	0.199 mg/L	0.2 mg/L	99.5	70.0	130	----
		Antimony, total	7440-36-0	E420	ND mg/L	----	ND	70.0	130	----
		Arsenic, total	7440-38-2	E420	ND mg/L	----	ND	70.0	130	----
		Barium, total	7440-39-3	E420	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00980 mg/L	0.01 mg/L	98.0	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00387 mg/L	0.004 mg/L	96.8	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1642827) - continued										
WP2421416-001	Anonymous	Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Copper, total	7440-50-8	E420	0.0185 mg/L	0.02 mg/L	92.4	70.0	130	----
		Iron, total	7439-89-6	E420	1.91 mg/L	2 mg/L	95.5	70.0	130	----
		Lead, total	7439-92-1	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Lithium, total	7439-93-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0192 mg/L	0.02 mg/L	95.9	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0371 mg/L	0.04 mg/L	92.8	70.0	130	----
		Phosphorus, total	7723-14-0	E420	10.9 mg/L	10 mg/L	109	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0492 mg/L	0.04 mg/L	123	70.0	130	----
		Silicon, total	7440-21-3	E420	9.75 mg/L	10 mg/L	97.5	70.0	130	----
		Silver, total	7440-22-4	E420	0.00379 mg/L	0.004 mg/L	94.7	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00384 mg/L	0.004 mg/L	96.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, total	7440-31-5	E420	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00397 mg/L	0.004 mg/L	99.3	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, total	7440-66-6	E420	0.359 mg/L	0.4 mg/L	89.8	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1645553)										
WP2421458-006	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0230 mg/L	0.02 mg/L	115	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00868 mg/L	0.01 mg/L	86.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1645553) - continued										
WP2421458-006	Anonymous	Copper, dissolved	7440-50-8	E421	0.0183 mg/L	0.02 mg/L	91.4	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.94 mg/L	2 mg/L	96.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0190 mg/L	0.02 mg/L	95.2	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0995 mg/L	0.1 mg/L	99.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0381 mg/L	0.04 mg/L	95.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.5 mg/L	10 mg/L	115	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0304 mg/L	0.04 mg/L	76.0	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.77 mg/L	10 mg/L	97.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00368 mg/L	0.004 mg/L	92.1	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0389 mg/L	0.04 mg/L	97.2	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00370 mg/L	0.004 mg/L	92.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0186 mg/L	0.02 mg/L	93.2	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00376 mg/L	0.004 mg/L	93.9	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.407 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
Dissolved Metals (QCLot: 1649802)										
WP2421450-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000874 mg/L	0 mg/L	87.4	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL | | MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To |✓| YES | NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report |✓| YES | NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information	Invoice Recipients
ALS Account # / Quote #: PPR-022-3	Select Invoice Distribution: |✓| EMAIL | | MAIL ☐ FAX
Job #: PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer Sampler: CB/AP/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-03	3-Sep-24	12:00	WATER	9	X			7.24	7.35	274
	SW-08	3-Sep-24	12:40	WATER	9	X			6.61	13.13	89
	SW-08a	3-Sep-24	13:25	WATER	10	X			7.08	13.73	84
	SW-11	3-Sep-24	14:05	WATER	9	X			6.77	11.26	169
	SW-TR	3-Sep-24	10:10	WATER	9	X			3.74	13.89	26
	DUP-01	3-Sep-24	12:45	WATER	9	X			6.61	13.13	89
	BLANK-01	3-Sep-24	12:50	WATER	9	X			/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL S
Released by: CB	Sept 4 2024	Time:	Received by:	Date: SEP 05 2024	Time: 10:41	Received

14.1°C

Environmental Division
Winnipeg
Work Order Reference
WP2421465

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross					COC receipt info complete	☑
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:			
Green/white	8x500, 7+150	Orange/black	
Purple/white	14+100	Dark blue/white	
Red/white	14+125	Black/white	
Dark green/white	7+60	Brown/white	
Grey/white		Pink/white	
Yellow/black	14x40	Beige/white	
Light blue/white		Other (specify)	

Comments:

14.1°C, ice packs ✓

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			Client Contacts	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			Post-committing	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			Action Required?	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **WP2421728**	Page	: 1 of 12
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Sep-2024 09:45
PO	: PPR-022-3	Date Analysis Commenced	: 11-Sep-2024
C-O-C number	: ----	Issue Date	: 20-Sep-2024 13:54
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Administration, Winnipeg, Manitoba
Jon Fisher	Production Manager, Environmental	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
RRV	*Reported result verified by repeat analysis.*

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-REF	SW-09	CR-DS	SW-GL-B
					Client sampling date / time	08-Sep-2024 08:40	08-Sep-2024 14:00	08-Sep-2024 10:40	08-Sep-2024 09:20	07-Sep-2024 10:20
						WP2421728-001	WP2421728-002	WP2421728-003	WP2421728-004	WP2421728-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.87	8.44	7.04	7.13	5.67
Temperature, field	----	EF001/WP	0.10	°C		14.4	17.0	10.5	14.6	13.2
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		5.0	2.6	5.5	3.6	11.9
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		30.9	28.9	44.1	32.2	38.8
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		30.9	28.9	44.1	32.2	38.8
Conductivity	----	E100/WP	1.0	µS/cm		90.5	87.0	94.8	90.7	78.6
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		38.7	38.7	50.1	40.2	40.4
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		38.7	36.6	49.8	38.6	38.0
pH	----	E108/WP	0.10	pH units		7.53	7.67	7.50	7.51	7.02
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		54.2	62.2	81.6	68.6	64.6
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		4.1	6.3	10.3	4.1	15.8
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0190	0.0051	0.0284	0.0066	0.549
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		3.02	2.97	0.47	2.87	0.22
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.104	0.110	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.104	0.112	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	0.0020	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0686	0.0378	0.0453	0.0286	0.212
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		6.23	6.30	0.85	5.91	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-REF	SW-09	CR-DS	SW-GL-B
					Client sampling date / time	08-Sep-2024 08:40	08-Sep-2024 14:00	08-Sep-2024 10:40	08-Sep-2024 09:20	07-Sep-2024 10:20
						WP2421728-001	WP2421728-002	WP2421728-003	WP2421728-004	WP2421728-005
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.0	13.4	19.9	12.6	12.8
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.108	0.153	0.518	0.0729	0.0142
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00030	0.00031	<0.00010	0.00028	<0.00010
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0137	0.0140	0.00343	0.0127	0.0240
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00822	0.00800	0.0145	0.00809	0.0204
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	0.000024	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000063	0.0000058	<0.0000050	<0.0000050
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.2	10.7	13.6	11.0	11.6
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000020	0.000024	0.000067	0.000013	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00028	0.00039	0.00106	0.00020	0.00011
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	<0.00050	0.00106	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00010	0.00014	0.00030	<0.00010	0.00025
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00122	0.00148	0.00116	0.00107	<0.00050
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.134	0.175	0.894	0.108	5.22
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000070	0.000109	0.000292	0.000055	<0.000050
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0019	0.0027	0.0018	0.0013
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.60	2.40	3.85	2.70	2.20
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0108	0.0119	0.0503	0.00964	1.07
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000224	0.000192	0.000294	0.000279	0.000130
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00122	0.00132	0.00109	0.00109	<0.00050
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.035	0.034	0.046	<0.030	0.194
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	0.194
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.989	1.04	1.05	0.963	0.804
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00212	0.00220	0.00295	0.00202	0.00257

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-REF	SW-09	CR-DS	SW-GL-B
					Client sampling date / time	08-Sep-2024 08:40	08-Sep-2024 14:00	08-Sep-2024 10:40	08-Sep-2024 09:20	07-Sep-2024 10:20
						WP2421728-001	WP2421728-002	WP2421728-003	WP2421728-004	WP2421728-005
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000118	0.000078	0.000111	0.000084	0.000054
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.16	2.16	3.01	2.00	2.49
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.37	2.53	1.75	2.45	1.08
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0312	0.0297	0.0315	0.0324	0.0271
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.02	2.09	<0.50	1.77	<0.50
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	<0.00010	0.00012	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	<0.00010	<0.00010	Not Detected	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00511	0.00766	0.0226	0.00341	0.00051
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000112	0.000123	0.000292	0.000097	0.000077
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00068	0.00081	0.00176	0.00061	0.00072
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	Not Detected
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00053	0.00056	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0074	0.0104	0.0447	0.0081	0.0106
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00027	0.00028	<0.00010	0.00028	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.0107	0.0114	0.00319	0.0108	0.0230
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00688	0.00556	0.00992	0.00703	0.0141
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.0	11.1	13.6	11.4	12.0
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000010
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00031	0.00016	0.00012
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	<0.00010	0.00012	<0.00010	0.00028

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	CR-FDP	CR-REF	SW-09	CR-DS	SW-GL-B
					Client sampling date / time	08-Sep-2024 08:40	08-Sep-2024 14:00	08-Sep-2024 10:40	08-Sep-2024 09:20	07-Sep-2024 10:20
						WP2421728-001	WP2421728-002	WP2421728-003	WP2421728-004	WP2421728-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00199 RRV	0.00115	0.00092	0.00190 RRV	<0.00020
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.070	0.021	0.414	0.037	5.64
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	<0.000050	0.000122	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0022	0.0025	0.0025	0.0021	0.0018
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.72	2.66	3.92	2.85	2.54
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0106	0.00136	0.0394	0.00078	1.09
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000200	0.000189	0.000250	0.000210	0.000138
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00093	0.00094	0.00057	0.00096	Not Detected
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	0.037	<0.030	0.158
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	0.158
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.986	0.961	0.962	1.00	0.850
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00170	0.00162	0.00164	0.00180	0.00231
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		<0.000050	<0.000050	0.000128	0.000102	<0.000050
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.01	1.96	2.13	2.06	2.59
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	<0.000010	<0.000010	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.47	2.60	1.83	2.59	1.15
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0295	0.0294	0.0296	0.0309	0.0277
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.18	2.32	0.64	2.38	<0.50
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	<0.00020	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	Not Detected
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	Not Detected	Not Detected	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00030	<0.00030	0.00231	<0.00030	0.00036
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000084	0.000104	0.000256	0.000085	0.000063
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	<0.00050	0.00080	<0.00050	0.00056
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0018	<0.0010	<0.0010	0.0014	<0.0010
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		<0.00030	<0.00030	0.00034	<0.00030	<0.00030
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-FDP	CR-REF	SW-09	CR-DS	SW-GL-B
					Client sampling date / time	08-Sep-2024 08:40	08-Sep-2024 14:00	08-Sep-2024 10:40	08-Sep-2024 09:20	07-Sep-2024 10:20
Analyte	CAS Number	Method/Lab	LOR	Unit		WP2421728-001	WP2421728-002	WP2421728-003	WP2421728-004	WP2421728-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-17	SW-TRAVEL BLANK	SW-DUP02	SW-FIELD02
					Client sampling date / time	07-Sep-2024 10:00	07-Sep-2024 12:10	07-Sep-2024 00:00	07-Sep-2024 10:00	07-Sep-2024 10:20
						WP2421728-006	WP2421728-007	WP2421728-008	WP2421728-009	WP2421728-010
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		6.83	5.58	----	6.83	----
Temperature, field	----	EF001/WP	0.10	°C		15.1	9.34	----	15.1	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		3.5	10.4	<2.0	4.2	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		31.7	6.9	<1.0	31.7	1.6
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		31.7	6.9	<1.0	31.7	1.6
Conductivity	----	E100/WP	1.0	µS/cm		66.8	25.9	Not Detected	66.7	2.8
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		33.5	12.2	<0.50	34.1	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		32.1	12.2	<0.50	32.1	<0.50
pH	----	E108/WP	0.10	pH units		7.51	6.15	5.57	7.52	6.25
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		50.6	57.3	<3.0	51.9	<3.0
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.7	5.9	<1.0	1.9	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	0.0116	<0.0050	0.0050	0.0459
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.18	0.14	Not Detected	0.18	0.17
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0180	0.0609	<0.0020	0.0182	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		0.62	<0.30	<0.30	0.58	<0.30
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-17	SW-TRAVEL BLANK	SW-DUP02	SW-FIELD02
					Client sampling date / time	07-Sep-2024 10:00	07-Sep-2024 12:10	07-Sep-2024 00:00	07-Sep-2024 10:00	07-Sep-2024 10:20
						WP2421728-006	WP2421728-007	WP2421728-008	WP2421728-009	WP2421728-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		13.4	29.1	<0.50	12.1	<0.50
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0109	0.411	<0.0030	0.0098	<0.0030
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		<0.00010	0.00012	Not Detected	<0.00010	Not Detected
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00269	0.00459	<0.00010	0.00269	<0.00010
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00813	0.00739	Not Detected	0.00827	<0.00010
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		<0.000020	<0.000020	Not Detected	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		Not Detected	<0.000050	Not Detected	Not Detected	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L		<0.010	<0.010	Not Detected	<0.010	Not Detected
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		<0.0000050	0.0000081	Not Detected	<0.0000050	Not Detected
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		9.36	3.24	Not Detected	9.28	<0.050
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		<0.000010	0.000020	<0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	0.00162	<0.00010	<0.00010	<0.00010
Chromium, total	7440-47-3	E420/WP	0.00050	mg/L		<0.00050	0.00162	Not Detected	<0.00050	Not Detected
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		<0.00010	0.00028	Not Detected	<0.00010	Not Detected
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		<0.00050	0.00052	Not Detected	<0.00050	Not Detected
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.157	2.95	<0.010	0.157	Not Detected
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		<0.000050	0.000097	Not Detected	<0.000050	Not Detected
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0012	<0.0010	Not Detected	0.0012	Not Detected
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.12	1.01	<0.0050	2.17	<0.0050
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0392	0.0138	<0.00010	0.0394	<0.00010
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000125	0.000059	Not Detected	0.000117	Not Detected
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		<0.00050	0.00092	Not Detected	<0.00050	Not Detected
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.058	<0.030	<0.030	<0.030
Phosphorus, total	7723-14-0	E420/WP	0.050	mg/L		<0.050	0.058	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.636	0.361	Not Detected	0.640	Not Detected
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00184	0.00266	Not Detected	0.00192	Not Detected
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		<0.000050	0.000070	Not Detected	0.000068	Not Detected
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.96	0.33	<0.10	0.98	<0.10

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-17	SW-TRAVEL BLANK	SW-DUP02	SW-FIELD02
					Client sampling date / time	07-Sep-2024 10:00	07-Sep-2024 12:10	07-Sep-2024 00:00	07-Sep-2024 10:00	07-Sep-2024 10:20
						WP2421728-006	WP2421728-007	WP2421728-008	WP2421728-009	WP2421728-010
						Result	Result	Result	Result	Result
Total Metals										
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	Not Detected	<0.000010
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.04	1.42	<0.050	1.06	<0.050
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0213	0.0182	Not Detected	0.0213	Not Detected
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		<0.50	<0.50	Not Detected	<0.50	Not Detected
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		<0.00020	<0.00020	<0.00020	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	Not Detected
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		<0.00010	0.00013	Not Detected	Not Detected	Not Detected
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	<0.00010
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		<0.00030	0.00744	Not Detected	<0.00030	Not Detected
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000038	0.000043	Not Detected	0.000040	Not Detected
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		<0.00050	0.00286	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		Not Detected	<0.0030	Not Detected	Not Detected	Not Detected
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		<0.00020	0.00042	Not Detected	<0.00020	Not Detected
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0038	0.337	<0.0010	0.0029	Not Detected
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		<0.00010	0.00010	Not Detected	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00206	0.00327	Not Detected	0.00190	Not Detected
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00734	0.00598	0.00026 RRV	0.00709	<0.00010
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	<0.000020	Not Detected	<0.000020	Not Detected
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		<0.010	<0.010	Not Detected	<0.010	Not Detected
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		Not Detected	0.0000060	Not Detected	Not Detected	Not Detected
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.61	3.15	<0.050	9.79	<0.050
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		<0.000010	0.000020	Not Detected	<0.000010	Not Detected
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00150	<0.00010	<0.00010	<0.00010
Chromium, dissolved	7440-47-3	E421/WP	0.00050	mg/L		<0.00050	0.00150	Not Detected	Not Detected	Not Detected
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		<0.00010	0.00021	Not Detected	<0.00010	Not Detected
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		Not Detected	0.00059	<0.00020	<0.00020	Not Detected
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.073	1.90	<0.010	0.035	Not Detected

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	SW-GL	SW-17	SW-TRAVEL BLANK	SW-DUP02	SW-FIELD02
					Client sampling date / time	07-Sep-2024 10:00	07-Sep-2024 12:10	07-Sep-2024 00:00	07-Sep-2024 10:00	07-Sep-2024 10:20
						WP2421728-006	WP2421728-007	WP2421728-008	WP2421728-009	WP2421728-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		<0.000050	0.000053	Not Detected	Not Detected	<0.000050
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0015	<0.0010	<0.0010	0.0016	<0.0010
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.30	1.06	<0.0050	2.35	<0.0050
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0124	0.00817	<0.00010	0.00092	<0.00010
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000119	<0.000050	Not Detected	0.000094	Not Detected
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		<0.00050	0.00088	Not Detected	<0.00050	Not Detected
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Phosphorus, dissolved	7723-14-0	E421/WP	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	Not Detected
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.667	0.347	Not Detected	0.658	Not Detected
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00174	0.00224	Not Detected	0.00177	Not Detected
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.06	0.304	Not Detected	1.03	Not Detected
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	<0.000010	Not Detected	Not Detected	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.15	1.12	<0.050	1.13	Not Detected
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0226	0.0182	<0.00020	0.0215	Not Detected
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		<0.50	<0.50	Not Detected	<0.50	Not Detected
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		<0.000010	<0.000010	Not Detected	<0.000010	Not Detected
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	0.00012	Not Detected	Not Detected	Not Detected
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	Not Detected	<0.00010
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		<0.00030	0.00490	Not Detected	Not Detected	Not Detected
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000032	0.000034	Not Detected	0.000034	Not Detected
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		<0.00050	0.00164	Not Detected	<0.00050	Not Detected
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		<0.0010	0.0032	<0.0010	<0.0010	0.0017
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		Not Detected	0.00046	Not Detected	Not Detected	Not Detected
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2421728**	Page	: 1 of 37
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Sep-2024 09:45
PO	: PPR-022-3	Issue Date	: 20-Sep-2024 13:50
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E298	07-Sep-2024	16-Sep-2024	28 days	10 days	✓	16-Sep-2024	28 days	10 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-DS	E298	08-Sep-2024	16-Sep-2024	28 days	8 days	✓	16-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	08-Sep-2024	16-Sep-2024	28 days	8 days	✓	16-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	08-Sep-2024	16-Sep-2024	28 days	8 days	✓	16-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-09	E298	08-Sep-2024	16-Sep-2024	28 days	8 days	✓	16-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-17	E298	07-Sep-2024	16-Sep-2024	28 days	9 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP02	E298	07-Sep-2024	16-Sep-2024	28 days	9 days	✓	16-Sep-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-FIELD02	E298	07-Sep-2024	16-Sep-2024	28 days	9 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	07-Sep-2024	16-Sep-2024	28 days	9 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	07-Sep-2024	16-Sep-2024	28 days	9 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-DS	E235.Cl-L	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-FDP	E235.Cl-L	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-REF	E235.Cl-L	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-09	E235.Cl-L	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-17	E235.Cl-L	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-DUP02	E235.Cl-L	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-FIELD02	E235.Cl-L	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-GL	E235.Cl-L	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-GL-B	E235.Cl-L	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-TRAVEL BLANK	E235.Cl-L	07-Sep-2024	11-Sep-2024	28 days	5 days	✓	11-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
CR-DS	E235.NO3-L	08-Sep-2024	11-Sep-2024	3 days	3 days	✓	11-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
CR-FDP	E235.NO3-L	08-Sep-2024	11-Sep-2024	3 days	3 days	✓	11-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
CR-REF	E235.NO3-L	08-Sep-2024	11-Sep-2024	3 days	3 days	✓	11-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-09	E235.NO3-L	08-Sep-2024	11-Sep-2024	3 days	3 days	✓	11-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-17	E235.NO3-L	07-Sep-2024	11-Sep-2024	3 days	4 days	× EHTR	11-Sep-2024	3 days	4 days	× EHTR

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-DUP02	E235.NO3-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-FIELD02	E235.NO3-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL	E235.NO3-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-GL-B	E235.NO3-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-TRAVEL BLANK	E235.NO3-L	07-Sep-2024	11-Sep-2024	3 days	5 days	✗ EHTR	11-Sep-2024	3 days	5 days	✗ EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-DS	E235.NO2-L	08-Sep-2024	11-Sep-2024	3 days	3 days	✓	11-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-FDP	E235.NO2-L	08-Sep-2024	11-Sep-2024	3 days	3 days	✓	11-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE CR-REF	E235.NO2-L	08-Sep-2024	11-Sep-2024	3 days	3 days	✓	11-Sep-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-09	E235.NO2-L	08-Sep-2024	11-Sep-2024	3 days	3 days	✓	11-Sep-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-17	E235.NO2-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-DUP02	E235.NO2-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-FIELD02	E235.NO2-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL	E235.NO2-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL-B	E235.NO2-L	07-Sep-2024	11-Sep-2024	3 days	4 days	✗ EHTR	11-Sep-2024	3 days	4 days	✗ EHTR
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-TRAVEL BLANK	E235.NO2-L	07-Sep-2024	11-Sep-2024	3 days	5 days	✗ EHTR	11-Sep-2024	3 days	5 days	✗ EHTR
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
CR-DS	E235.SO4	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
CR-FDP	E235.SO4	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
CR-REF	E235.SO4	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-09	E235.SO4	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-17	E235.SO4	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-DUP02	E235.SO4	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-FIELD02	E235.SO4	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL	E235.SO4	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL-B	E235.SO4	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-TRAVEL BLANK	E235.SO4	07-Sep-2024	11-Sep-2024	28 days	5 days	✓	11-Sep-2024	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	08-Sep-2024	13-Sep-2024	28 days	5 days	✓	16-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	08-Sep-2024	13-Sep-2024	28 days	5 days	✓	16-Sep-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	08-Sep-2024	13-Sep-2024	28 days	5 days	✓	16-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	08-Sep-2024	13-Sep-2024	28 days	5 days	✓	16-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-17	E372-U	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP02	E372-U	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-FIELD02	E372-U	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL-B	E372-U	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	16-Sep-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TRAVEL BLANK	E372-U	07-Sep-2024	13-Sep-2024	28 days	7 days	✓	16-Sep-2024	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-REF	E339-L	08-Sep-2024	16-Sep-2024	24 hrs	189 hrs	× EHTR	16-Sep-2024	24 hrs	189 hrs	× EHTR

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-09	E339-L	08-Sep-2024	16-Sep-2024	24 hrs	192 hrs	× EHTR	16-Sep-2024	24 hrs	192 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-DS	E339-L	08-Sep-2024	16-Sep-2024	24 hrs	194 hrs	× EHTR	16-Sep-2024	24 hrs	194 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-FDP	E339-L	08-Sep-2024	16-Sep-2024	24 hrs	194 hrs	× EHTR	16-Sep-2024	24 hrs	194 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-17	E339-L	07-Sep-2024	16-Sep-2024	24 hrs	215 hrs	× EHTR	16-Sep-2024	24 hrs	215 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-DUP02	E339-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-FIELD02	E339-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-GL	E339-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-GL-B	E339-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : Free Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-TRAVEL BLANK	E339-L	07-Sep-2024	16-Sep-2024	24 hrs	227 hrs	× EHTR	16-Sep-2024	24 hrs	227 hrs	× EHTR

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-REF	E333-L	08-Sep-2024	16-Sep-2024	24 hrs	189 hrs	× EHTR	16-Sep-2024	24 hrs	189 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-09	E333-L	08-Sep-2024	16-Sep-2024	24 hrs	192 hrs	× EHTR	16-Sep-2024	24 hrs	192 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-DS	E333-L	08-Sep-2024	16-Sep-2024	24 hrs	194 hrs	× EHTR	16-Sep-2024	24 hrs	194 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-FDP	E333-L	08-Sep-2024	16-Sep-2024	24 hrs	194 hrs	× EHTR	16-Sep-2024	24 hrs	194 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-17	E333-L	07-Sep-2024	16-Sep-2024	24 hrs	215 hrs	× EHTR	16-Sep-2024	24 hrs	215 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-DUP02	E333-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-FIELD02	E333-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-GL	E333-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-GL-B	E333-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-TRAVEL BLANK	E333-L	07-Sep-2024	16-Sep-2024	24 hrs	227 hrs	× EHTR	16-Sep-2024	24 hrs	227 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-REF	E336-L	08-Sep-2024	16-Sep-2024	24 hrs	189 hrs	× EHTR	16-Sep-2024	24 hrs	189 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-09	E336-L	08-Sep-2024	16-Sep-2024	24 hrs	192 hrs	× EHTR	16-Sep-2024	24 hrs	192 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-DS	E336-L	08-Sep-2024	16-Sep-2024	24 hrs	194 hrs	× EHTR	16-Sep-2024	24 hrs	194 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) CR-FDP	E336-L	08-Sep-2024	16-Sep-2024	24 hrs	194 hrs	× EHTR	16-Sep-2024	24 hrs	194 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-17	E336-L	07-Sep-2024	16-Sep-2024	24 hrs	215 hrs	× EHTR	16-Sep-2024	24 hrs	215 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-DUP02	E336-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-FIELD02	E336-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-GL	E336-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-GL-B	E336-L	07-Sep-2024	16-Sep-2024	24 hrs	217 hrs	× EHTR	16-Sep-2024	24 hrs	217 hrs	× EHTR
Cyanides : WAD Cyanide (Low Level)										
HDPE - total (sodium hydroxide) SW-TRAVEL BLANK	E336-L	07-Sep-2024	16-Sep-2024	24 hrs	227 hrs	× EHTR	16-Sep-2024	24 hrs	227 hrs	× EHTR
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-17	E421.Cr-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-DUP02	E421.Cr-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-FIELD02	E421.Cr-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL	E421.Cr-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.Cr-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.Cr-L	07-Sep-2024	17-Sep-2024	180 days	11 days	✓	17-Sep-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-DS	E421.Cr-L	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-FDP	E421.Cr-L	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) CR-REF	E421.Cr-L	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-09	E421.Cr-L	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-DS	E509	08-Sep-2024	18-Sep-2024	28 days	10 days	✓	18-Sep-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	08-Sep-2024	18-Sep-2024	28 days	10 days	✓	18-Sep-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	08-Sep-2024	18-Sep-2024	28 days	10 days	✓	18-Sep-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	08-Sep-2024	18-Sep-2024	28 days	10 days	✓	18-Sep-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-17	E509	07-Sep-2024	18-Sep-2024	28 days	11 days	✓	18-Sep-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP02	E509	07-Sep-2024	18-Sep-2024	28 days	11 days	✓	18-Sep-2024	28 days	11 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-FIELD02	E509	07-Sep-2024	18-Sep-2024	28 days	11 days	✓	18-Sep-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	07-Sep-2024	18-Sep-2024	28 days	11 days	✓	18-Sep-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	07-Sep-2024	18-Sep-2024	28 days	11 days	✓	18-Sep-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TRAVEL BLANK	E509	07-Sep-2024	18-Sep-2024	28 days	11 days	✓	18-Sep-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-17	E421	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP02	E421	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-FIELD02	E421	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421	07-Sep-2024	17-Sep-2024	180 days	11 days	✓	17-Sep-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-DS	E421	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-FDP	E421	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) CR-REF	E421	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-17	E421.P-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-DUP02	E421.P-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-FIELD02	E421.P-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL	E421.P-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-GL-B	E421.P-L	07-Sep-2024	17-Sep-2024	180 days	10 days	✓	17-Sep-2024	180 days	10 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-TRAVEL BLANK	E421.P-L	07-Sep-2024	17-Sep-2024	180 days	11 days	✓	17-Sep-2024	180 days	11 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-DS	E421.P-L	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-FDP	E421.P-L	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) CR-REF	E421.P-L	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-09	E421.P-L	08-Sep-2024	17-Sep-2024	180 days	9 days	✓	17-Sep-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) CR-DS	EF001	08-Sep-2024	----	----	----		13-Sep-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) CR-FDP	EF001	08-Sep-2024	----	----	----		13-Sep-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) CR-REF	EF001	08-Sep-2024	----	----	----		13-Sep-2024	----	5 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-09	EF001	08-Sep-2024	----	----	----		13-Sep-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-17	EF001	07-Sep-2024	----	----	----		13-Sep-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-DUP02	EF001	07-Sep-2024	----	----	----		13-Sep-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-GL	EF001	07-Sep-2024	----	----	----		13-Sep-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-GL-B	EF001	07-Sep-2024	----	----	----		13-Sep-2024	----	6 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-DS	E358-L	08-Sep-2024	13-Sep-2024	28 days	5 days	✓	13-Sep-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-FDP	E358-L	08-Sep-2024	13-Sep-2024	28 days	5 days	✓	13-Sep-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
CR-REF	E358-L	08-Sep-2024	13-Sep-2024	28 days	5 days	✓	13-Sep-2024	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-09	E358-L	08-Sep-2024	13-Sep-2024	28 days	5 days	✓	13-Sep-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-17	E358-L	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	13-Sep-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP02	E358-L	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	13-Sep-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-FIELD02	E358-L	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	13-Sep-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	13-Sep-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL-B	E358-L	07-Sep-2024	13-Sep-2024	28 days	6 days	✓	13-Sep-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TRAVEL BLANK	E358-L	07-Sep-2024	13-Sep-2024	28 days	7 days	✓	13-Sep-2024	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-DS	E283	08-Sep-2024	13-Sep-2024	14 days	5 days	✓	14-Sep-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	08-Sep-2024	13-Sep-2024	14 days	5 days	✓	14-Sep-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-09	E283	08-Sep-2024	13-Sep-2024	14 days	5 days	✓	14-Sep-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	08-Sep-2024	13-Sep-2024	14 days	6 days	✓	14-Sep-2024	14 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-17	E283	07-Sep-2024	13-Sep-2024	14 days	6 days	✓	14-Sep-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP02	E283	07-Sep-2024	13-Sep-2024	14 days	6 days	✓	14-Sep-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-FIELD02	E283	07-Sep-2024	13-Sep-2024	14 days	6 days	✓	14-Sep-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	07-Sep-2024	13-Sep-2024	14 days	6 days	✓	14-Sep-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	07-Sep-2024	13-Sep-2024	14 days	6 days	✓	14-Sep-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TRAVEL BLANK	E283	07-Sep-2024	13-Sep-2024	14 days	7 days	✓	14-Sep-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE CR-DS	E290	08-Sep-2024	11-Sep-2024	14 days	3 days	✓	11-Sep-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE CR-FDP	E290	08-Sep-2024	11-Sep-2024	14 days	3 days	✓	11-Sep-2024	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE CR-REF	E290	08-Sep-2024	11-Sep-2024	14 days	3 days	✓	11-Sep-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-09	E290	08-Sep-2024	11-Sep-2024	14 days	3 days	✓	11-Sep-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-17	E290	07-Sep-2024	11-Sep-2024	14 days	4 days	✓	11-Sep-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-DUP02	E290	07-Sep-2024	11-Sep-2024	14 days	4 days	✓	11-Sep-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-FIELD02	E290	07-Sep-2024	11-Sep-2024	14 days	4 days	✓	11-Sep-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL	E290	07-Sep-2024	11-Sep-2024	14 days	4 days	✓	11-Sep-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL-B	E290	07-Sep-2024	11-Sep-2024	14 days	4 days	✓	11-Sep-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TRAVEL BLANK	E290	07-Sep-2024	11-Sep-2024	14 days	5 days	✓	11-Sep-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-DS	E100	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE CR-FDP	E100	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-REF	E100	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-09	E100	08-Sep-2024	11-Sep-2024	28 days	3 days	✓	11-Sep-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-17	E100	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-DUP02	E100	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-FIELD02	E100	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL	E100	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL-B	E100	07-Sep-2024	11-Sep-2024	28 days	4 days	✓	11-Sep-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-TRAVEL BLANK	E100	07-Sep-2024	11-Sep-2024	28 days	5 days	✓	11-Sep-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE SW-TRAVEL BLANK	E108	07-Sep-2024	11-Sep-2024	0.25 hrs	109 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	109 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-REF	E108	08-Sep-2024	11-Sep-2024	0.25 hrs	71 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	71 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-09	E108	08-Sep-2024	11-Sep-2024	0.25 hrs	74 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	74 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-DS	E108	08-Sep-2024	11-Sep-2024	0.25 hrs	76 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	76 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-FDP	E108	08-Sep-2024	11-Sep-2024	0.25 hrs	76 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	76 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-17	E108	07-Sep-2024	11-Sep-2024	0.25 hrs	97 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	97 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-DUP02	E108	07-Sep-2024	11-Sep-2024	0.25 hrs	99 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	99 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-FIELD02	E108	07-Sep-2024	11-Sep-2024	0.25 hrs	99 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	99 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL	E108	07-Sep-2024	11-Sep-2024	0.25 hrs	99 hrs	× EHTR-FM	11-Sep-2024	0.25 hrs	99 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE SW-GL-B	E108	07-Sep-2024	11-Sep-2024	0.25 hrs	99 hrs	✗ EHTR-FM	11-Sep-2024	0.25 hrs	99 hrs	✗ EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-DS	E162-L	08-Sep-2024	----	----	----		12-Sep-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-FDP	E162-L	08-Sep-2024	----	----	----		12-Sep-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-REF	E162-L	08-Sep-2024	----	----	----		12-Sep-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-09	E162-L	08-Sep-2024	----	----	----		12-Sep-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-17	E162-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-DUP02	E162-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-FIELD02	E162-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL	E162-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL-B	E162-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TRAVEL BLANK	E162-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-DS	E160-L	08-Sep-2024	----	----	----		12-Sep-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-FDP	E160-L	08-Sep-2024	----	----	----		12-Sep-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-REF	E160-L	08-Sep-2024	----	----	----		12-Sep-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-09	E160-L	08-Sep-2024	----	----	----		12-Sep-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-17	E160-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-DUP02	E160-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-FIELD02	E160-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE										
SW-GL	E160-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE										
SW-GL-B	E160-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE										
SW-TRAVEL BLANK	E160-L	07-Sep-2024	----	----	----		12-Sep-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
CR-DS	E420.Cr-L	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
CR-FDP	E420.Cr-L	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
CR-REF	E420.Cr-L	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-09	E420.Cr-L	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-17	E420.Cr-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid)										
SW-DUP02	E420.Cr-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-FIELD02	E420.Cr-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420.Cr-L	07-Sep-2024	12-Sep-2024	180 days	6 days	✓	12-Sep-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-17	E508	07-Sep-2024	17-Sep-2024	28 days	10 days	✓	17-Sep-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP02	E508	07-Sep-2024	17-Sep-2024	28 days	10 days	✓	17-Sep-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-FIELD02	E508	07-Sep-2024	17-Sep-2024	28 days	10 days	✓	17-Sep-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	07-Sep-2024	17-Sep-2024	28 days	10 days	✓	17-Sep-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	07-Sep-2024	17-Sep-2024	28 days	10 days	✓	17-Sep-2024	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-TRAVEL BLANK	E508	07-Sep-2024	17-Sep-2024	28 days	10 days	✓	17-Sep-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
CR-DS	E508	08-Sep-2024	17-Sep-2024	28 days	9 days	✓	17-Sep-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
CR-FDP	E508	08-Sep-2024	17-Sep-2024	28 days	9 days	✓	17-Sep-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
CR-REF	E508	08-Sep-2024	17-Sep-2024	28 days	9 days	✓	17-Sep-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid)										
SW-09	E508	08-Sep-2024	17-Sep-2024	28 days	9 days	✓	17-Sep-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
CR-DS	E420	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
CR-FDP	E420	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
CR-REF	E420	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
SW-09	E420	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-17	E420	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP02	E420	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-FIELD02	E420	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420	07-Sep-2024	12-Sep-2024	180 days	6 days	✓	12-Sep-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	08-Sep-2024	12-Sep-2024	180 days	4 days	✓	12-Sep-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-17	E420.P-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP02	E420.P-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-FIELD02	E420.P-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	07-Sep-2024	12-Sep-2024	180 days	5 days	✓	12-Sep-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TRAVEL BLANK	E420.P-L	07-Sep-2024	12-Sep-2024	180 days	6 days	✓	12-Sep-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1651047	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1645191	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1653967	3	55	5.4	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1645230	1	10	10.0	5.0	✓
Conductivity in Water	E100	1645190	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1655754	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1657436	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1655752	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1650258	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1655753	1	27	3.7	5.0	✗
Free Cyanide (Low Level)	E339-L	1653416	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1645228	1	10	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1645229	1	10	10.0	5.0	✓
pH by Meter	E108	1645189	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1645227	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1646763	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1648058	0	10	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1653417	1	10	10.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1655025	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1648056	0	14	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1650787	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1648054	0	11	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1646773	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1653415	1	10	10.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1651047	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1645191	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1653967	3	55	5.4	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1645230	1	10	10.0	5.0	✓
Conductivity in Water	E100	1645190	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1655754	2	10	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1657436	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1655752	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1650258	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1655753	2	27	7.4	5.0	✓
Free Cyanide (Low Level)	E339-L	1653416	1	10	10.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1645228	1	10	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1645229	1	10	10.0	5.0	✓
pH by Meter	E108	1645189	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1645227	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1646763	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1648058	1	10	10.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1653417	1	10	10.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1655025	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1648056	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1650787	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1648054	1	11	9.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1646773	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1653415	1	10	10.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1651047	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1645191	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1653967	3	55	5.4	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1645230	1	10	10.0	5.0	✓
Conductivity in Water	E100	1645190	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1655754	2	10	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1657436	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1655752	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1650258	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1655753	2	27	7.4	5.0	✓
Free Cyanide (Low Level)	E339-L	1653416	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1645228	1	10	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1645229	1	10	10.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1645227	1	10	10.0	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1646763	1	18	5.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1648058	1	10	10.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1653417	1	10	10.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1655025	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1648056	1	14	7.1	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1650787	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1648054	1	11	9.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1646773	1	19	5.2	5.0	✓
WAD Cyanide (Low Level)	E336-L	1653415	1	10	10.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1653967	2	55	3.6	5.0	×

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1645230	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1655754	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1657436	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1655752	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1650258	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1655753	1	27	3.7	5.0	×
Free Cyanide (Low Level)	E339-L	1653416	1	10	10.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1645228	1	10	10.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1645229	1	10	10.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1645227	1	10	10.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1648058	0	10	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1653417	1	10	10.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1655025	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1648056	0	14	0.0	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1650787	1	16	6.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1648054	0	11	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1653415	1	10	10.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order	: **WP2421728**	Page	: 1 of 20
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Sep-2024 09:45
PO	: PPR-022-3	Date Analysis Commenced	: 11-Sep-2024
C-O-C number	: ----	Issue Date	: 20-Sep-2024 13:50
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V2		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Aleasia Myatt	Project Manager	Winnipeg Administration, Winnipeg, Manitoba
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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1645189)											
WP2421724-011	Anonymous	pH	----	E108	0.10	pH units	8.73	8.73	0.00%	4%	----
Physical Tests (QC Lot: 1645190)											
WP2421724-011	Anonymous	Conductivity	----	E100	1.0	µS/cm	89.7	88.8	1.01%	10%	----
Physical Tests (QC Lot: 1645191)											
WP2421724-011	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	40.1	40.2	0.249%	20%	----
Physical Tests (QC Lot: 1646763)											
WP2421724-014	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	65.6	69.6	4.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1646773)											
WP2421728-001	CR-FDP	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	4.1	4.8	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1651047)											
WP2421728-001	CR-FDP	Acidity (as CaCO3)	----	E283	2.0	mg/L	5.0	3.8	1.2	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1645227)											
WP2421728-001	CR-FDP	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	6.23	6.22	0.0762%	20%	----
Anions and Nutrients (QC Lot: 1645228)											
WP2421728-001	CR-FDP	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1645229)											
WP2421728-001	CR-FDP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1645230)											
WP2421728-001	CR-FDP	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	3.02	3.00	0.439%	20%	----
Anions and Nutrients (QC Lot: 1650787)											
WP2421724-014	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0027	0.0027	0.00007	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1653967)											
WP2421364-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0137	0.0124	0.0013	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1654394)											
WP2421728-009	SW-DUP02	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1659979)											
WP2421720-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0674	0.0669	0.804%	20%	----
Cyanides (QC Lot: 1653415)											
WP2421728-001	CR-FDP	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1653416)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1653416) - continued											
WP2421728-001	CR-FDP	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1653417)											
WP2421728-001	CR-FDP	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1650258)											
WP2421728-001	CR-FDP	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	12.0	12.1	0.632%	20%	----
Total Metals (QC Lot: 1655025)											
WP2421017-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1655752)											
WP2421714-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	3.2 µg/L	0.0040	0.0008	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00031	0.00027	0.00004	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00519	0.00514	0.920%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0475	0.0484	1.88%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.082	0.083	0.002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000125	0.0000123	0.0000003	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	67.4	67.3	0.0932%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00013	0.00014	0.000001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00315	0.00320	1.59%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0424	0.0452	6.59%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	42.8	43.6	1.85%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00071	0.00073	0.00002	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00216	0.00214	1.17%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00296	0.00303	0.00007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	0.192	0.222	0.029	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	8.09	8.38	3.50%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00252	0.00272	7.78%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000695	0.000655	6.01%	20%	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	8.08	7.95	1.69%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1655752) - continued											
WP2421714-001	Anonymous	Sodium, dissolved	7440-23-5	E421	0.050	mg/L	38.7	39.2	1.29%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.277	0.284	2.22%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	65.9	68.6	4.02%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000031	0.000012	0.000019	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00077	0.00087	0.00010	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00360	0.00354	1.65%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00452	0.00459	0.00007	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1655770)											
WP2421728-003	SW-09	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00031	0.00028	0.00003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1655771)											
WP2421728-003	SW-09	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	0.037	<0.030	0.007	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1655772)											
WP2421728-003	SW-09	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0447	0.0462	3.25%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00319	0.00308	3.42%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00992	0.00995	0.299%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	13.6	13.9	1.94%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00012	0.00012	0.000001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00092	0.00093	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.414	0.409	1.36%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000122	0.000124	0.000001	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0025	0.0030	0.0005	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1655772) - continued											
WP2421728-003	SW-09	Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	3.92	3.88	0.856%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0394	0.0397	0.761%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000250	0.000251	0.000002	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00057	0.00057	0.000002	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.962	0.972	1.06%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00164	0.00181	0.00018	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000128	0.000065	0.000063	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.13	2.06	3.42%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.83	1.80	1.22%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0296	0.0298	0.510%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	0.64	0.56	0.08	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00231	0.00214	0.00017	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000256	0.000251	1.77%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00080	0.00080	0.000003	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00034	0.00034	0.000008	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1657436)											
WP2421724-016	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1645190)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1645191)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1646763)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1646773)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1651047)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1645227)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1645228)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1645229)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1645230)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1650787)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1653967)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1654394)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1659979)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1653415)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1653416)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1653417)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1650258)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1650258) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1648054)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1648056)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1648056) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1648058)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1655025)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1655752)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1655752) - continued						
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1655753)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1655754)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1655770)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1655771)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1655772)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1655772) - continued						
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1657436)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1645189)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1645190)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1645191)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1646763)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.3	85.0	115	----
Physical Tests (QCLot: 1646773)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 1651047)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Anions and Nutrients (QCLot: 1645227)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1645228)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1645229)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.9	90.0	110	----
Anions and Nutrients (QCLot: 1645230)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1650787)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.6	80.0	120	----
Anions and Nutrients (QCLot: 1653967)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.8	85.0	115	----
Anions and Nutrients (QCLot: 1654394)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	94.4	85.0	115	----
Anions and Nutrients (QCLot: 1659979)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	96.3	85.0	115	----
Cyanides (QCLot: 1653415)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.6	80.0	120	----
Cyanides (QCLot: 1653416)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1653416) - continued									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	94.8	80.0	120	----
Cyanides (QCLot: 1653417)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	84.1	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1650258)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	107	80.0	120	----
Total Metals (QCLot: 1648054)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	103	80.0	120	----
Total Metals (QCLot: 1648056)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	96.6	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	99.8	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.4	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100.0	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	100	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.9	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	94.3	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.5	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.25 mg/L	88.9	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	88.1	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	86.2	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	82.6	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.6	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	114	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	97.6	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	92.3	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.8	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	84.6	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	10 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	92.7	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	84.7	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	92.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1648056) - continued									
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	89.8	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.2	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	87.6	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	103	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	99.1	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	89.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.2	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	92.3	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.2	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	96.6	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	93.3	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	86.5	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	93.4	80.0	120	----
Total Metals (QCLot: 1648058)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	88.9	80.0	120	----
Total Metals (QCLot: 1655025)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	95.8	80.0	120	----
Dissolved Metals (QCLot: 1655752)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	99.5	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	94.4	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	92.4	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.2	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	89.8	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	92.8	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	91.8	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	92.1	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.1	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.4	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	93.4	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	94.5	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	87.6	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.1	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	92.6	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1655752) - continued									
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	94.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	91.1	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	91.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	95.8	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	94.5	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	95.9	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	83.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	88.4	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	84.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	91.4	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.6	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	94.6	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	89.7	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	89.9	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	90.7	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	94.5	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.7	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	89.7	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	90.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	93.3	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.0	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	91.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	95.8	80.0	120	----
Dissolved Metals (QCLot: 1655754)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	93.4	80.0	120	----
Dissolved Metals (QCLot: 1655770)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	92.6	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	99.3	80.0	120	----
Dissolved Metals (QCLot: 1655772)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	100	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.5	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	90.4	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.3	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.8	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	93.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1655772) - continued									
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	91.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	95.4	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	95.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.25 mg/L	92.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	93.3	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	93.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	88.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	92.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	92.9	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	93.7	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	89.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	10 mg/L	99.3	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	93.3	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	96.6	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	82.5	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	92.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	84.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	95.1	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	99.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	88.2	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	91.2	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	90.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	92.4	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	90.9	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	90.2	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	93.4	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	95.1	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	88.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	91.1	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	94.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1645227)										
WP2421728-001	CR-FDP	Sulfate (as SO4)	14808-79-8	E235.SO4	98.8 mg/L	100 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 1645228)										
WP2421728-001	CR-FDP	Nitrate (as N)	14797-55-8	E235.NO3-L	2.47 mg/L	2.5 mg/L	99.0	75.0	125	----
Anions and Nutrients (QCLot: 1645229)										
WP2421728-001	CR-FDP	Nitrite (as N)	14797-65-0	E235.NO2-L	0.493 mg/L	0.5 mg/L	98.7	75.0	125	----
Anions and Nutrients (QCLot: 1645230)										
WP2421728-001	CR-FDP	Chloride	16887-00-6	E235.Cl-L	99.1 mg/L	100 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 1650787)										
WP2421724-015	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.239 mg/L	0.25 mg/L	95.5	70.0	130	----
Anions and Nutrients (QCLot: 1653967)										
WP2421364-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1654394)										
WP2421728-009	SW-DUP02	Ammonia, total (as N)	7664-41-7	E298	0.0956 mg/L	0.1 mg/L	95.6	75.0	125	----
Cyanides (QCLot: 1653415)										
WP2421728-001	CR-FDP	Cyanide, weak acid dissociable	----	E336-L	0.121 mg/L	0.125 mg/L	96.8	75.0	125	----
Cyanides (QCLot: 1653416)										
WP2421728-001	CR-FDP	Cyanide, free	----	E339-L	0.124 mg/L	0.125 mg/L	98.8	75.0	125	----
Cyanides (QCLot: 1653417)										
WP2421728-001	CR-FDP	Cyanide, strong acid dissociable (Total)	----	E333-L	0.202 mg/L	0.25 mg/L	81.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1650258)										
WP2421728-002	CR-REF	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1655025)										
WP2421025-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000935 mg/L	0 mg/L	93.5	70.0	130	----
Dissolved Metals (QCLot: 1655752)										
WP2421714-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.211 mg/L	0.2 mg/L	106	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00923 mg/L	0.01 mg/L	92.3	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.108 mg/L	0.1 mg/L	108	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1655752) - continued										
WP2421714-001	Anonymous	Cadmium, dissolved	7440-43-9	E421	0.00421 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.07 mg/L	2 mg/L	103	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0397 mg/L	0.04 mg/L	99.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	11.3 mg/L	10 mg/L	113	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0442 mg/L	0.04 mg/L	110	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.29 mg/L	10 mg/L	92.9	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00342 mg/L	0.004 mg/L	85.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00369 mg/L	0.004 mg/L	92.4	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0189 mg/L	0.02 mg/L	94.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00384 mg/L	0.004 mg/L	96.0	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.400 mg/L	0.4 mg/L	100	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1655770)										
WP2421728-003	SW-09	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1655771)										
WP2421728-003	SW-09	Phosphorus, dissolved	7723-14-0	E421.P-L	10.3 mg/L	10 mg/L	103	70.0	130	----
Dissolved Metals (QCLot: 1655772)										
WP2421728-003	SW-09	Aluminum, dissolved	7429-90-5	E421	0.210 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0197 mg/L	0.02 mg/L	98.4	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00941 mg/L	0.01 mg/L	94.1	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1655772) - continued										
WP2421728-003	SW-09	Boron, dissolved	7440-42-8	E421	0.111 mg/L	0.1 mg/L	111	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.03 mg/L	2 mg/L	101	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0200 mg/L	0.02 mg/L	100.0	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0195 mg/L	0.02 mg/L	97.5	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0397 mg/L	0.04 mg/L	99.3	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	10.3 mg/L	10 mg/L	103	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.16 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.78 mg/L	10 mg/L	97.8	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00395 mg/L	0.004 mg/L	98.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	1.90 mg/L	2 mg/L	95.2	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.5 mg/L	20 mg/L	103	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0399 mg/L	0.04 mg/L	99.7	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00384 mg/L	0.004 mg/L	96.0	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	103	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0196 mg/L	0.02 mg/L	98.0	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0190 mg/L	0.02 mg/L	94.9	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.391 mg/L	0.4 mg/L	97.8	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1657436)										
WP2421724-017	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000909 mg/L	0 mg/L	90.9	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2421728

Telephone : +1 204 255 9720

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Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** CB/AP/EM/JM

Analysis Request

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	CR-FDP	8-Sep-24	8:40	WATER	9	X			6.87	14.4	85
	CR-REF	8-Sep-24	14:00	WATER	9	X			8.44	16.98	75
	SW-09	8-Sep-24	10:40	WATER	9	X			7.04	10.53	85
	CR-DS	8-Sep-24	9:20	WATER	9	X			7.13	14.61	81
	SW-GL-B	7-Sep-24	10:20	WATER	9	X			5.67	13.16	78
	SW-GL	7-Sep-24	10:00	WATER	9	X			6.83	15.12	57
	SW-17	7-Sep-24	12:10	WATER	9	X			5.58	9.34	43
	SW-TRAVEL BLANK	7-Sep-24	n/a	WATER	9	X			n/a	n/a	n/a
	SW-DUP02	7-Sep-24	10:00	WATER	9	X			6.83	15.12	57
	SW-FIELD02	7-Sep-24	10:20	WATER	9	X			n/a	n/a	n/a

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Sept 9 2024	Time:	Received by:	Date: Sept 11 2024	Time: 945am	Received by:	Time:

19.40

cooler 1/2

Sample Intake

Client: Great Bear				COC receipt info complete		☐
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:			
Green/white	10x500 9x100 1x250	Orange/black	
Purple/white	20x100 mL	Dark blue/white	
Red/white	20x100 mL	Black/white	
Dark green/white	10x100mL	Brown/white	
Grey/white		Pink/white	
Yellow/black	20x40mL	Beige/white	
Light blue/white		Other (specify)	

Comments: 19.4° icepacks- A

Sample Login

Receipt Window	√/X	N/A	Bottles	√/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			Client Contacts	√/X	N/A
Sample Info	√/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			Post-committing	√/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			Action Required?	Yes	No
Due Dates	√/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2423294**			
Client	:	**Great Bear Resources Ltd**	Laboratory	:	ALS Environmental - Winnipeg
Contact	:	Ashley Moncrief	Account Manager	:	Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	:	1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	807 630 0203	Telephone	:	+1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	:	03-Oct-2024 09:45
PO	:	PPR-022-3	Date Analysis Commenced	:	03-Oct-2024
C-O-C number	:	----	Issue Date	:	16-Oct-2024 12:12
Sampler	:	----			
Site	:	----			
Quote number	:	2024 Standing offer			
No. of samples received	:	8			
No. of samples analysed	:	8			

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Administration, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-1	RSWQ-1 Deep	RSWQ-2	RSWQ-2 Deep	RSWQ-3
					Client sampling date / time	01-Oct-2024 11:40	01-Oct-2024 11:50	01-Oct-2024 12:45	01-Oct-2024 13:00	01-Oct-2024 14:00
						WP2423294-001	WP2423294-002	WP2423294-003	WP2423294-004	WP2423294-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.19	7.49	7.35	7.70	7.55
Temperature, field	----	EF001/WP	0.10	°C		13.2	13.2	12.3	11.8	13.1
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		36.7	36.8	37.2	37.6	37.9
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		36.7	36.8	37.2	37.6	37.9
Conductivity	----	E100/WP	1.0	µS/cm		81.3	79.7	80.9	82.2	82.0
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		38.9	39.3	39.4	39.8	40.1
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		40.7	40.2	40.7	44.8	41.5
pH	----	E108/WP	0.10	pH units		7.66	7.69	7.70	7.59	7.69
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		52.6	53.6	56.9	70.3	64.6
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		7.6	7.2	5.6	153	5.9
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0079	0.0072	0.0056	0.0094	0.0061
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.58	0.59	0.72	0.76	0.78
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0072	0.0066	<0.0050	<0.0050	0.0064
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0072	0.0066	<0.0051	<0.0051	0.0064

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-1	RSWQ-1 Deep	RSWQ-2	RSWQ-2 Deep	RSWQ-3
					Client sampling date / time	01-Oct-2024 11:40	01-Oct-2024 11:50	01-Oct-2024 12:45	01-Oct-2024 13:00	01-Oct-2024 14:00
						WP2423294-001	WP2423294-002	WP2423294-003	WP2423294-004	WP2423294-005
						Result	Result	Result	Result	Result
Anions and Nutrients										
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0207	0.0220	0.0221	0.177	0.0224
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		1.20	1.20	1.48	1.55	1.61
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		12.1	10.3	11.7	10.9	12.7
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.229	0.259	0.228	1.48	0.224
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.000034	0.000044	0.000059	0.000065	0.000069
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00060	0.00067	0.00135	0.00193	0.00174
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00843	0.00811	0.00766	0.0182	0.00810
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000011	0.000010	0.000010	0.000052	0.0000060
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000015	0.0000015	0.0000022	0.000010	0.0000010
Boron, total	7440-42-8	E420/WP	0.010	mg/L		Not Detected	Not Detected	Not Detected	0.0012	Not Detected
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000025	0.0000044	0.0000021	0.0000104	0.0000030
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.7	11.5	11.5	12.2	11.8
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000030	0.000030	0.000028	0.000182	0.000027
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00054	0.00062	0.00053	0.00335	0.00052

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-1	RSWQ-1 Deep	RSWQ-2	RSWQ-2 Deep	RSWQ-3
					Client sampling date / time	01-Oct-2024 11:40	01-Oct-2024 11:50	01-Oct-2024 12:45	01-Oct-2024 13:00	01-Oct-2024 14:00
						WP2423294-001	WP2423294-002	WP2423294-003	WP2423294-004	WP2423294-005
						Result	Result	Result	Result	Result
Total Metals										
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00012	0.00013	0.00013	0.00078	0.00012
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00096	0.00101	0.00105	0.00240	0.00111
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.249	0.279	0.250	1.61	0.242
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000119	0.000102	0.000096	0.000539	0.000094
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.00098	0.00097	0.0010	0.0024	0.0011
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.78	2.80	2.92	3.48	2.93
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00808	0.00877	0.00766	0.0406	0.00851
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000109	0.000110	0.000124	0.000139	0.000140
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00063	0.00064	0.00068	0.00252	0.00070
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.031	0.034	0.112	0.039
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.673	0.689	0.719	1.07	0.751
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00180	0.00174	0.00184	0.00482	0.00185
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000104	0.000128	0.000108	0.000085	0.000094
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.22	2.18	2.08	4.29	2.08
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000016	0.0000020	0.0000020	0.0000078	0.0000021
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.12	1.12	1.24	1.53	1.36
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0184	0.0181	0.0191	0.0206	0.0197
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.60	0.55	0.53	0.62	0.62
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000039	0.0000031	0.0000037	0.000021	0.0000022

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-1	RSWQ-1 Deep	RSWQ-2	RSWQ-2 Deep	RSWQ-3
					Client sampling date / time	01-Oct-2024 11:40	01-Oct-2024 11:50	01-Oct-2024 12:45	01-Oct-2024 13:00	01-Oct-2024 14:00
						WP2423294-001	WP2423294-002	WP2423294-003	WP2423294-004	WP2423294-005
						Result	Result	Result	Result	Result
Total Metals										
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000049	0.000060	0.000050	0.00015	0.000052
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	0.000037	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0112	0.0122	0.0106	0.0703	0.0102
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	0.000012	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000066	0.000069	0.000064	0.000136	0.000069
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00089	0.00095	0.00090	0.00337	0.00089
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.00076	0.00074	0.00069	0.0045	0.00078
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00025	0.00024	0.00024	0.00055	0.00024
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0234	0.0132	0.0250	0.0136	0.0244
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000040	0.000032	0.000041	0.000045	0.000044
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00054	0.00057	0.00115	0.00128	0.00157
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00653	0.00623	0.00651	0.00654	0.00660
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000084	0.0000053	0.0000050	0.0000046	0.0000043
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0066	0.0048	0.0042	0.0036	0.0037
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000015	0.0000015	0.0000034	0.0000022	0.0000021
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.2	11.3	11.3	11.4	11.4
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000015	0.0000013	0.0000015	Not Detected	Not Detected
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00015	0.00011	0.00012	0.00013	0.00013
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000014	0.000013	0.000021	0.000024	0.000019

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-1	RSWQ-1 Deep	RSWQ-2	RSWQ-2 Deep	RSWQ-3
					Client sampling date / time	01-Oct-2024 11:40	01-Oct-2024 11:50	01-Oct-2024 12:45	01-Oct-2024 13:00	01-Oct-2024 14:00
						WP2423294-001	WP2423294-002	WP2423294-003	WP2423294-004	WP2423294-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00076	0.00066	0.00082	0.00080	0.00086
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.030	0.023	0.032	0.025	0.029
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000018	0.000012	0.000019	0.000017	0.000016
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.00078	0.00076	0.00091	0.00097	0.0011
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.66	2.70	2.72	2.75	2.83
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00071	0.00063	0.00126	0.00139	0.00071
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000114	0.000122	0.000109	0.000116	0.000133
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00031	0.00028	0.00038	0.00039	0.00039
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.616	0.619	0.661	0.684	0.672
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00123	0.00124	0.00133	0.00119	0.00129
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000086	0.000131	0.000081	0.000096	0.000064
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.71	1.70	1.76	1.72	1.78
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000049	0.0000018	0.0000014	0.0000021	0.0000010
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.12	1.07	1.18	1.23	1.26
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0178	0.0178	0.0184	0.0189	0.0191
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.45	0.51	0.57	0.60	0.61
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000023	0.0000019	0.0000012	0.0000015	0.0000013
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000034	0.000024	0.000029	0.000026	0.000025

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-1	RSWQ-1 Deep	RSWQ-2	RSWQ-2 Deep	RSWQ-3
					Client sampling date / time	01-Oct-2024 11:40	01-Oct-2024 11:50	01-Oct-2024 12:45	01-Oct-2024 13:00	01-Oct-2024 14:00
						WP2423294-001	WP2423294-002	WP2423294-003	WP2423294-004	WP2423294-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00073	0.00038	0.00077	0.00051	0.00080
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000051	0.000052	0.000057	0.000063	0.000058
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00042	0.00041	0.00045	0.00049	0.00047
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00026	0.00017	0.00028	0.00030	0.00024
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00014	0.00012	0.00015	0.00012	0.00015
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Laboratory	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-3 Deep	SW-DUP-01	SW-BLANK-01	----	----
					Client sampling date / time	01-Oct-2024 14:30	01-Oct-2024 13:25	01-Oct-2024 13:30	----	----
						WP2423294-006	WP2423294-007	WP2423294-008	----	----
						Result	Result	Result	----	----
Field Tests										
pH, field	----	EF001/WP	0.1	pH units		----	----	nr	----	----
pH, field	----	EF001/WP	0.10	pH units		7.46	7.35	----	----	----
Temperature, field	----	EF001/WP	0.1	°C		----	----	nr	----	----
Temperature, field	----	EF001/WP	0.10	°C		13.0	12.3	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	RSWQ-3 Deep	SW-DUP-01	SW-BLANK-01	----	----
Client sample ID									
Client sampling date / time					01-Oct-2024 14:30	01-Oct-2024 13:25	01-Oct-2024 13:30	----	----
					WP2423294-006	WP2423294-007	WP2423294-008	----	----
					Result	Result	Result	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	<2.0	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	37.9	37.9	<1.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	37.9	37.9	<1.0	----	----
Conductivity	----	E100/WP	1.0	µS/cm	82.9	82.5	1.0	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	40.0	39.9	<0.50	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	41.4	41.2	<0.50	----	----
pH	----	E108/WP	0.10	pH units	7.71	7.72	5.75	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	66.3	63.6	<3.0	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	6.6	9.4	<1.0	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	<0.0050	0.0068	<0.0050	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	0.78	0.75	Not Detected	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0064	<0.0050	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0064	<0.0051	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0245	0.0241	Not Detected	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	1.60	1.53	<0.30	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	RSWQ-3 Deep	SW-DUP-01	SW-BLANK-01	----	----
Client sample ID									
Client sampling date / time					01-Oct-2024 14:30	01-Oct-2024 13:25	01-Oct-2024 13:30	----	----
					WP2423294-006	WP2423294-007	WP2423294-008	----	----
					Result	Result	Result	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	11.2	12.7	0.66	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	0.250	0.426	0.0014	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L	0.000061	0.000059	Not Detected	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L	0.00167	0.00158	0.000074	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L	0.00824	0.00986	Not Detected	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L	0.000012	0.000015	Not Detected	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L	0.0000020	Not Detected	Not Detected	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L	Not Detected	0.0070	0.0026	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L	0.0000026	0.0000039	Not Detected	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L	11.7	11.6	0.0072	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L	0.000025	0.000056	Not Detected	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L	0.00058	0.00095	<0.00010	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L	0.00013	0.00021	Not Detected	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L	0.00107	0.00128	Not Detected	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L	0.262	0.431	Not Detected	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L	0.000098	0.000160	Not Detected	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-3 Deep	SW-DUP-01	SW-BLANK-01	----	----
					Client sampling date / time	01-Oct-2024 14:30	01-Oct-2024 13:25	01-Oct-2024 13:30	----	----
						WP2423294-006	WP2423294-007	WP2423294-008	----	----
						Result	Result	Result	----	----
Total Metals										
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0011	0.00100	Not Detected	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.97	2.96	0.00094	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00902	0.00943	0.000036	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000129	0.000143	Not Detected	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00074	0.00096	Not Detected	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.041	0.036	<0.030	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.752	0.826	Not Detected	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00181	0.00220	Not Detected	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000123	0.000022	0.000184	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.20	2.58	0.032	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000011	0.0000019	Not Detected	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.39	1.32	Not Detected	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0196	0.0193	Not Detected	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.70	0.60	Not Detected	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000021	0.0000018	Not Detected	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000053	0.000075	Not Detected	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.0115	0.0190	Not Detected	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000010	Not Detected	Not Detected	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-3 Deep	SW-DUP-01	SW-BLANK-01	----	----
					Client sampling date / time	01-Oct-2024 14:30	01-Oct-2024 13:25	01-Oct-2024 13:30	----	----
						WP2423294-006	WP2423294-007	WP2423294-008	----	----
						Result	Result	Result	----	----
Total Metals										
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000073	0.000085	Not Detected	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00097	0.00128	0.000072	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0010	0.0012	Not Detected	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00024	0.00033	Not Detected	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0146	0.0311	0.00062	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000053	0.000042	Not Detected	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00146	0.00127	Not Detected	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00663	0.00661	Not Detected	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000048	0.0000055	Not Detected	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0040	0.0036	0.0014	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000015	0.0000019	Not Detected	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.4	11.4	Not Detected	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	0.0000014	Not Detected	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00015	0.00014	<0.00010	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000018	0.000028	Not Detected	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00086	0.00086	Not Detected	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.025	0.035	Not Detected	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000014	0.000025	Not Detected	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0010	0.0012	Not Detected	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-3 Deep	SW-DUP-01	SW-BLANK-01	----	----
					Client sampling date / time	01-Oct-2024 14:30	01-Oct-2024 13:25	01-Oct-2024 13:30	----	----
						WP2423294-006	WP2423294-007	WP2423294-008	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.80	2.78	Not Detected	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00061	0.00132	Not Detected	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000136	0.000116	Not Detected	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00039	0.00044	Not Detected	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.681	0.681	Not Detected	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00125	0.00115	Not Detected	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000049	0.000087	Not Detected	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.73	1.78	Not Detected	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.25	1.27	Not Detected	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0193	0.0190	Not Detected	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.66	0.58	Not Detected	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000018	0.0000018	Not Detected	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000022	0.000040	Not Detected	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00041	0.00120	Not Detected	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000056	0.000062	Not Detected	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	RSWQ-3 Deep	SW-DUP-01	SW-BLANK-01	----	----
					Client sampling date / time	01-Oct-2024 14:30	01-Oct-2024 13:25	01-Oct-2024 13:30	----	----
						WP2423294-006	WP2423294-007	WP2423294-008	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00043	0.00052	Not Detected	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00048	0.00031	0.00027	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00014	0.00018	Not Detected	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2423294**	Page	: 1 of 33
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 03-Oct-2024 09:45
PO	: PPR-022-3	Issue Date	: 16-Oct-2024 12:07
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG4-1694848 001	----	Arsenic, total	7440-38-2	E420	0.00018 B mg/L	0.0001 mg/L	Blank result exceeds permitted value
Total Metals	QC-MRG4-1694848 001	----	Selenium, total	7782-49-2	E420	0.000093 B mg/L	0.00005 mg/L	Blank result exceeds permitted value
Dissolved Metals	QC-MRG3-1696499 001	----	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00026 B mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) RSWQ-1	E298	01-Oct-2024	09-Oct-2024	28 days	8 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) RSWQ-1 Deep	E298	01-Oct-2024	09-Oct-2024	28 days	8 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) RSWQ-2	E298	01-Oct-2024	09-Oct-2024	28 days	8 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) RSWQ-2 Deep	E298	01-Oct-2024	09-Oct-2024	28 days	8 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) RSWQ-3	E298	01-Oct-2024	09-Oct-2024	28 days	8 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) RSWQ-3 Deep	E298	01-Oct-2024	09-Oct-2024	28 days	8 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-BLANK-01	E298	01-Oct-2024	09-Oct-2024	28 days	8 days	✓	09-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP-01	E298	01-Oct-2024	09-Oct-2024	28 days	8 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE RSWQ-1	E235.Cl-L	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE RSWQ-1 Deep	E235.Cl-L	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE RSWQ-2	E235.Cl-L	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE RSWQ-2 Deep	E235.Cl-L	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE RSWQ-3	E235.Cl-L	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE RSWQ-3 Deep	E235.Cl-L	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-BLANK-01	E235.Cl-L	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-DUP-01	E235.Cl-L	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE RSWQ-1	E235.NO3-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE RSWQ-1 Deep	E235.NO3-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE RSWQ-2	E235.NO3-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE RSWQ-2 Deep	E235.NO3-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE RSWQ-3	E235.NO3-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE RSWQ-3 Deep	E235.NO3-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-BLANK-01	E235.NO3-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-DUP-01	E235.NO3-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE RSWQ-1	E235.NO2-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE RSWQ-1 Deep	E235.NO2-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE RSWQ-2	E235.NO2-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE RSWQ-2 Deep	E235.NO2-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE RSWQ-3	E235.NO2-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE RSWQ-3 Deep	E235.NO2-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-BLANK-01	E235.NO2-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-DUP-01	E235.NO2-L	01-Oct-2024	03-Oct-2024	3 days	2 days	✓	03-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE RSWQ-1	E235.SO4	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE RSWQ-1 Deep	E235.SO4	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE RSWQ-2	E235.SO4	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE RSWQ-2 Deep	E235.SO4	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE RSWQ-3	E235.SO4	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE RSWQ-3 Deep	E235.SO4	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-BLANK-01	E235.SO4	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-DUP-01	E235.SO4	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) RSWQ-1	E372-U	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) RSWQ-1 Deep	E372-U	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) RSWQ-2	E372-U	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) RSWQ-2 Deep	E372-U	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) RSWQ-3	E372-U	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) RSWQ-3 Deep	E372-U	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-BLANK-01	E372-U	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP-01	E372-U	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) RSWQ-1	E339-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) RSWQ-1 Deep	E339-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) RSWQ-2	E339-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) RSWQ-2 Deep	E339-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-3	E339-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-3 Deep	E339-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK-01	E339-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP-01	E339-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-1	E333-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-1 Deep	E333-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-2	E333-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-2 Deep	E333-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-3	E333-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-3 Deep	E333-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK-01	E333-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP-01	E333-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-1	E336-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-1 Deep	E336-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-2	E336-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-2 Deep	E336-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-3	E336-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
RSWQ-3 Deep	E336-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK-01	E336-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP-01	E336-L	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	07-Oct-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
RSWQ-1	E421.Cr-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
RSWQ-1 Deep	E421.Cr-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
RSWQ-2	E421.Cr-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
RSWQ-2 Deep	E421.Cr-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
RSWQ-3	E421.Cr-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
RSWQ-3 Deep	E421.Cr-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-BLANK-01	E421.Cr-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP-01	E421.Cr-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
RSWQ-1	E509	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
RSWQ-1 Deep	E509	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
RSWQ-2	E509	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
RSWQ-2 Deep	E509	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
RSWQ-3	E509	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
RSWQ-3 Deep	E509	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-BLANK-01	E509	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	08-Oct-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-DUP-01	E509	01-Oct-2024	08-Oct-2024	28 days	7 days	✓	08-Oct-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
RSWQ-1	E421	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
RSWQ-1 Deep	E421	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
RSWQ-2	E421	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
RSWQ-2 Deep	E421	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
RSWQ-3	E421	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
RSWQ-3 Deep	E421	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-BLANK-01	E421	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-DUP-01	E421	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
RSWQ-1	E421.P-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
RSWQ-1 Deep	E421.P-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
RSWQ-2	E421.P-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
RSWQ-2 Deep	E421.P-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
RSWQ-3	E421.P-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
RSWQ-3 Deep	E421.P-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-BLANK-01	E421.P-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-DUP-01	E421.P-L	01-Oct-2024	08-Oct-2024	180 days	7 days	✓	08-Oct-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
RSWQ-1	EF001	01-Oct-2024	----	----	----		10-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
RSWQ-1 Deep	EF001	01-Oct-2024	----	----	----		10-Oct-2024	----	9 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
RSWQ-2	EF001	01-Oct-2024	----	----	----		10-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
RSWQ-2 Deep	EF001	01-Oct-2024	----	----	----		10-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
RSWQ-3	EF001	01-Oct-2024	----	----	----		10-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
RSWQ-3 Deep	EF001	01-Oct-2024	----	----	----		10-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-BLANK-01	EF001	01-Oct-2024	----	----	----		10-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-DUP-01	EF001	01-Oct-2024	----	----	----		10-Oct-2024	----	9 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
RSWQ-1	E358-L	01-Oct-2024	04-Oct-2024	28 days	3 days	✓	04-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
RSWQ-1 Deep	E358-L	01-Oct-2024	04-Oct-2024	28 days	3 days	✓	04-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
RSWQ-2	E358-L	01-Oct-2024	04-Oct-2024	28 days	3 days	✓	04-Oct-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) RSWQ-2 Deep	E358-L	01-Oct-2024	04-Oct-2024	28 days	3 days	✓	04-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) RSWQ-3	E358-L	01-Oct-2024	04-Oct-2024	28 days	3 days	✓	04-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) RSWQ-3 Deep	E358-L	01-Oct-2024	04-Oct-2024	28 days	3 days	✓	04-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-BLANK-01	E358-L	01-Oct-2024	04-Oct-2024	28 days	3 days	✓	04-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP-01	E358-L	01-Oct-2024	04-Oct-2024	28 days	3 days	✓	04-Oct-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE RSWQ-1	E283	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	09-Oct-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE RSWQ-1 Deep	E283	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	09-Oct-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE RSWQ-2	E283	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	09-Oct-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE RSWQ-2 Deep	E283	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	09-Oct-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE RSWQ-3	E283	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	09-Oct-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE RSWQ-3 Deep	E283	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	09-Oct-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-BLANK-01	E283	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	09-Oct-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP-01	E283	01-Oct-2024	07-Oct-2024	14 days	6 days	✓	09-Oct-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE RSWQ-1	E290	01-Oct-2024	03-Oct-2024	14 days	2 days	✓	03-Oct-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE RSWQ-1 Deep	E290	01-Oct-2024	03-Oct-2024	14 days	2 days	✓	03-Oct-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE RSWQ-2	E290	01-Oct-2024	03-Oct-2024	14 days	2 days	✓	03-Oct-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE RSWQ-2 Deep	E290	01-Oct-2024	03-Oct-2024	14 days	2 days	✓	03-Oct-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE RSWQ-3	E290	01-Oct-2024	03-Oct-2024	14 days	2 days	✓	03-Oct-2024	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE RSWQ-3 Deep	E290	01-Oct-2024	03-Oct-2024	14 days	2 days	✓	03-Oct-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-BLANK-01	E290	01-Oct-2024	03-Oct-2024	14 days	2 days	✓	03-Oct-2024	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-DUP-01	E290	01-Oct-2024	03-Oct-2024	14 days	2 days	✓	03-Oct-2024	14 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE RSWQ-1	E100	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE RSWQ-1 Deep	E100	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE RSWQ-2	E100	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE RSWQ-2 Deep	E100	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE RSWQ-3	E100	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE RSWQ-3 Deep	E100	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-BLANK-01	E100	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-DUP-01	E100	01-Oct-2024	03-Oct-2024	28 days	2 days	✓	03-Oct-2024	28 days	2 days	✓
Physical Tests : pH by Meter										
HDPE RSWQ-3 Deep	E108	01-Oct-2024	03-Oct-2024	0.25 hrs	45 hrs	× EHTR-FM	03-Oct-2024	0.25 hrs	45 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE RSWQ-3	E108	01-Oct-2024	03-Oct-2024	0.25 hrs	46 hrs	× EHTR-FM	03-Oct-2024	0.25 hrs	46 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-BLANK-01	E108	01-Oct-2024	03-Oct-2024	0.25 hrs	46 hrs	× EHTR-FM	03-Oct-2024	0.25 hrs	46 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-DUP-01	E108	01-Oct-2024	03-Oct-2024	0.25 hrs	46 hrs	× EHTR-FM	03-Oct-2024	0.25 hrs	46 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE RSWQ-2	E108	01-Oct-2024	03-Oct-2024	0.25 hrs	47 hrs	× EHTR-FM	03-Oct-2024	0.25 hrs	47 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE RSWQ-2 Deep	E108	01-Oct-2024	03-Oct-2024	0.25 hrs	47 hrs	× EHTR-FM	03-Oct-2024	0.25 hrs	47 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE RSWQ-1	E108	01-Oct-2024	03-Oct-2024	0.25 hrs	48 hrs	× EHTR-FM	03-Oct-2024	0.25 hrs	48 hrs	× EHTR-FM

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE RSWQ-1 Deep	E108	01-Oct-2024	03-Oct-2024	0.25 hrs	48 hrs	× EHTR-FM	03-Oct-2024	0.25 hrs	48 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE RSWQ-1	E162-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE RSWQ-1 Deep	E162-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE RSWQ-2	E162-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE RSWQ-2 Deep	E162-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE RSWQ-3	E162-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE RSWQ-3 Deep	E162-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-BLANK-01	E162-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-DUP-01	E162-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE RSWQ-1	E160-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE RSWQ-1 Deep	E160-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE RSWQ-2	E160-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE RSWQ-2 Deep	E160-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE RSWQ-3	E160-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE RSWQ-3 Deep	E160-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-BLANK-01	E160-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-DUP-01	E160-L	01-Oct-2024	----	----	----		04-Oct-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) RSWQ-1	E420.Cr-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) RSWQ-1 Deep	E420.Cr-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) RSWQ-2	E420.Cr-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) RSWQ-2 Deep	E420.Cr-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) RSWQ-3	E420.Cr-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) RSWQ-3 Deep	E420.Cr-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-BLANK-01	E420.Cr-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP-01	E420.Cr-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) RSWQ-1	E508	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) RSWQ-1 Deep	E508	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) RSWQ-2	E508	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) RSWQ-2 Deep	E508	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) RSWQ-3	E508	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) RSWQ-3 Deep	E508	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-BLANK-01	E508	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP-01	E508	01-Oct-2024	07-Oct-2024	28 days	6 days	✓	07-Oct-2024	28 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) RSWQ-1	E420	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) RSWQ-1 Deep	E420	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) RSWQ-2	E420	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) RSWQ-2 Deep	E420	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) RSWQ-3	E420	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) RSWQ-3 Deep	E420	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-BLANK-01	E420	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP-01	E420	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) RSWQ-1	E420.P-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) RSWQ-1 Deep	E420.P-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) RSWQ-2	E420.P-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) RSWQ-2 Deep	E420.P-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) RSWQ-3	E420.P-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) RSWQ-3 Deep	E420.P-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-BLANK-01	E420.P-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP-01	E420.P-L	01-Oct-2024	07-Oct-2024	180 days	6 days	✓	07-Oct-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1695213	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1690477	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1698651	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1688737	1	13	7.6	5.0	✓
Conductivity in Water	E100	1690478	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1696500	0	8	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1694052	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1696499	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1689878	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1696501	0	18	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1694429	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1688739	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1688741	1	12	8.3	5.0	✓
pH by Meter	E108	1690476	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1688743	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1688787	2	32	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1694840	0	8	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1694427	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1694050	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1694837	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1697544	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1694841	0	18	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1688781	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1694428	1	8	12.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1695213	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1690477	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1698651	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1688737	1	13	7.6	5.0	✓
Conductivity in Water	E100	1690478	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1696500	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1694052	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1696499	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1689878	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1696501	1	18	5.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1694429	1	8	12.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1688739	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1688741	1	12	8.3	5.0	✓
pH by Meter	E108	1690476	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1688743	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1688787	2	32	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1694840	2	8	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1694427	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1694050	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1694837	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1697544	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1694841	2	18	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1688781	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1694428	1	8	12.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1695213	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1690477	1	11	9.0	5.0	✓
Ammonia by Fluorescence	E298	1698651	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1688737	1	13	7.6	5.0	✓
Conductivity in Water	E100	1690478	1	10	10.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1696500	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1694052	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1696499	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1689878	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1696501	1	18	5.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1694429	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1688739	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1688741	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1688743	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1688787	2	32	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1694840	2	8	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1694427	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1694050	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1694837	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1697544	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1694841	2	18	11.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1688781	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1694428	1	8	12.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1698651	1	16	6.2	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1688737	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1696500	0	8	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1694052	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1696499	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1689878	2	38	5.2	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1696501	0	18	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1694429	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1688739	1	12	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1688741	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1688743	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1694840	0	8	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1694427	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1694050	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1694837	2	37	5.4	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1697544	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1694841	0	18	0.0	5.0	×
WAD Cyanide (Low Level)	E336-L	1694428	1	8	12.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

QUALITY CONTROL REPORT

Work Order	: **WP2423294**	Page	: 1 of 21
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 03-Oct-2024 09:45
PO	: PPR-022-3	Date Analysis Commenced	: 03-Oct-2024
C-O-C number	: ----	Issue Date	: 16-Oct-2024 12:07
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

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General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1688781)											
WP2423120-008	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	70.8	74.6	5.14%	20%	----
Physical Tests (QC Lot: 1688787)											
WP2423228-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	768	775	0.907%	20%	----
Physical Tests (QC Lot: 1688788)											
WP2423294-004	RSWQ-2 Deep	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	70.3	70.9	0.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1690476)											
WP2423294-001	RSWQ-1	pH	----	E108	0.10	pH units	7.66	7.68	0.261%	4%	----
Physical Tests (QC Lot: 1690477)											
WP2423294-001	RSWQ-1	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	36.7	36.8	0.272%	20%	----
Physical Tests (QC Lot: 1690478)											
WP2423294-001	RSWQ-1	Conductivity	----	E100	1.0	µS/cm	81.3	80.0	1.61%	10%	----
Physical Tests (QC Lot: 1695213)											
WP2423294-001	RSWQ-1	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1688737)											
WP2423264-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	16.3	16.2	0.463%	20%	----
Anions and Nutrients (QC Lot: 1688739)											
WP2423264-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1688741)											
WP2423264-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1688743)											
WP2423264-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	31.6	31.6	0.249%	20%	----
Anions and Nutrients (QC Lot: 1697544)											
WP2423139-005	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0507	0.0510	0.629%	20%	----
Anions and Nutrients (QC Lot: 1698651)											
WP2423264-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1694427)											
WP2423285-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1694428)											
WP2423294-001	RSWQ-1	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1694429)											
WP2423294-001	RSWQ-1	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1689878)											
WP2422354-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.35	1.29	0.06	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1690725)											
WP2422153-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	23.1	22.0	4.82%	20%	----
Total Metals (QC Lot: 1694050)											
WP2423218-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1694837)											
WP2422387-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0034	0.0038	0.0004	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00037	0.00033	0.00003	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00186	0.00184	0.824%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.143	0.145	1.02%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	25.4	25.5	0.239%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0983	0.0987	0.389%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0314	0.0313	0.178%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	9.57	9.40	1.84%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00087	0.00093	0.00006	Diff <2x LOR	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00115	0.00114	0.802%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	2.35	2.31	1.77%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00050	0.00043	0.00008	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000050	0.000067	0.000017	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	3.85	3.89	1.03%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	62.9	64.7	2.74%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0985	0.0958	2.85%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1694837) - continued											
WP2422387-002	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	10.6	10.2	3.66%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000449	0.000458	2.01%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0035	0.0033	0.0001	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00023	0.00021	0.00002	Diff <2x LOR	----
Total Metals (QC Lot: 1694848)											
WP2422993-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0294	0.0272	0.0022	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00115	0.00116	0.218%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00639	0.00628	1.67%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	3.20	3.25	1.66%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00011	0.00011	0.000004	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.248	0.247	0.318%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000052	0.000055	0.000003	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.88	1.86	1.50%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0297	0.0292	1.51%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000100	0.000108	0.000008	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00066	0.00061	0.00005	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.648	0.625	3.62%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00142	0.00139	0.00003	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000146	0.000142	0.000003	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1694848) - continued											
WP2422993-001	Anonymous	Silicon, total	7440-21-3	E420	0.10	mg/L	0.58	0.59	0.01	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	1.10	1.07	2.76%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0145	0.0147	1.52%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00062	0.00053	0.00009	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000100	0.000096	0.000003	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1694052)											
WP2422329-011	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1696058)											
WP2423294-007	SW-DUP-01	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1696499)											
WP2422993-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0129	0.0136	5.59%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00084	0.00087	0.00003	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00521	0.00526	0.968%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	3.16	3.17	0.298%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00036	0.00035	0.000005	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.108	0.107	1.01%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1696499) - continued											
WP2422993-001	Anonymous	Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0011	0.0011	0.00002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	1.90	1.81	5.22%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00087	0.00087	0.00000005	Diff <2x LOR	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000071	0.000072	0.000001	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.568	0.563	0.986%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00128	0.00133	0.00005	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000103	0.000098	0.000005	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	0.521	0.535	2.56%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.02	1.05	2.45%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0149	0.0146	2.14%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000083	0.000079	0.000005	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1688781)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1688787)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1688788)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1690477)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1690478)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1695213)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1688737)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1688739)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1688741)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1688743)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1697544)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1698651)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1694427)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1694428)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1694429)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1689878)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1690725)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1690725) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1694050)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1694837)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1694837) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1694840)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1694841)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1694848)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	# 0.00018	B
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	# 0.000093	B
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1694848) - continued						
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1694850)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1694851)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1694052)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1696058)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1696499)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1696499) - continued						
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1696500)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	# 0.00026	B
Dissolved Metals (QCLot: 1696501)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1688781)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	103	85.0	115	----
Physical Tests (QCLot: 1688787)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	88.2	85.0	115	----
Physical Tests (QCLot: 1688788)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	95.1	85.0	115	----
Physical Tests (QCLot: 1690476)									
pH	----	E108	----	pH units	7 pH units	99.3	98.0	102	----
Physical Tests (QCLot: 1690477)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1690478)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1695213)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	110	85.0	115	----
Anions and Nutrients (QCLot: 1688737)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.9	90.0	110	----
Anions and Nutrients (QCLot: 1688739)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1688741)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	95.7	90.0	110	----
Anions and Nutrients (QCLot: 1688743)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1697544)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.6	80.0	120	----
Anions and Nutrients (QCLot: 1698651)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.4	85.0	115	----
Cyanides (QCLot: 1694427)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	84.5	80.0	120	----
Cyanides (QCLot: 1694428)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	90.8	80.0	120	----
Cyanides (QCLot: 1694429)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1694429) - continued									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	91.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1689878)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1690725)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	105	80.0	120	----
Total Metals (QCLot: 1694050)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	95.8	80.0	120	----
Total Metals (QCLot: 1694837)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	94.9	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	96.5	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	95.9	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	95.9	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	100.0	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	96.7	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.3	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	94.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	94.7	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	95.8	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.3	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	93.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.2	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.5	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	100.0	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	94.9	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	94.1	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	95.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	96.4	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	96.6	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1694837) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	97.0	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	98.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	95.6	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	94.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.8	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	97.9	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	96.0	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	96.5	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	90.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.8	80.0	120	----
Total Metals (QCLot: 1694840)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	96.4	80.0	120	----
Total Metals (QCLot: 1694841)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	100	80.0	120	----
Total Metals (QCLot: 1694848)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	104	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	97.4	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	100	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.6	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	97.9	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.0	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.9	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	96.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.6	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	94.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	94.1	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	94.8	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.1	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.8	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	102	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1694848) - continued									
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.6	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	97.0	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	90.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	103	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.5	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	110	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	94.5	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	95.3	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	93.0	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.4	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	98.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	91.4	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.8	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	99.0	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	95.4	80.0	120	----
Total Metals (QCLot: 1694850)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Total Metals (QCLot: 1694851)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	109	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	95.8	80.0	120	----
Dissolved Metals (QCLot: 1696499)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	98.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.6	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	104	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	92.4	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.4	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	98.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.0	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	94.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.2	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1696499) - continued									
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	95.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.1	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	95.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	96.6	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	95.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.8	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.3	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	95.7	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.2	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	94.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	94.9	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	90.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	99.8	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	99.3	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	96.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	88.1	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.9	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.5	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	95.5	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.3	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.5	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	90.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	98.7	80.0	120	----
Dissolved Metals (QCLot: 1696500)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	102	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1688737)										
WP2423264-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	96.0 mg/L	100 mg/L	96.0	75.0	125	----
Anions and Nutrients (QCLot: 1688739)										
WP2423264-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.41 mg/L	2.5 mg/L	96.5	75.0	125	----
Anions and Nutrients (QCLot: 1688741)										
WP2423264-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.470 mg/L	0.5 mg/L	94.0	75.0	125	----
Anions and Nutrients (QCLot: 1688743)										
WP2423264-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	93.3 mg/L	100 mg/L	93.3	75.0	125	----
Anions and Nutrients (QCLot: 1697544)										
WP2423139-006	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.245 mg/L	0.25 mg/L	97.9	70.0	130	----
Anions and Nutrients (QCLot: 1698651)										
WP2423264-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0985 mg/L	0.1 mg/L	98.5	75.0	125	----
Cyanides (QCLot: 1694427)										
WP2423285-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	1.04 mg/L	1.25 mg/L	83.4	75.0	125	----
Cyanides (QCLot: 1694428)										
WP2423294-001	RSWQ-1	Cyanide, weak acid dissociable	----	E336-L	0.116 mg/L	0.125 mg/L	93.3	75.0	125	----
Cyanides (QCLot: 1694429)										
WP2423294-001	RSWQ-1	Cyanide, free	----	E339-L	0.118 mg/L	0.125 mg/L	94.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1689878)										
WP2422387-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.16 mg/L	5 mg/L	103	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1690725)										
WP2422153-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1694050)										
WP2423218-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000817 mg/L	0 mg/L	81.7	70.0	130	----
Total Metals (QCLot: 1694837)										
WP2422387-002	Anonymous	Aluminum, total	7429-90-5	E420	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	0.0200 mg/L	0.02 mg/L	99.9	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0406 mg/L	0.04 mg/L	102	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00415 mg/L	0.004 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1694837) - continued										
WP2422387-002	Anonymous	Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00991 mg/L	0.01 mg/L	99.1	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.06 mg/L	2 mg/L	103	70.0	130	----
		Lead, total	7439-92-1	E420	0.0194 mg/L	0.02 mg/L	96.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0931 mg/L	0.1 mg/L	93.1	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		Potassium, total	7440-09-7	E420	4.15 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, total	7440-21-3	E420	9.77 mg/L	10 mg/L	97.7	70.0	130	----
		Silver, total	7440-22-4	E420	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.8 mg/L	20 mg/L	109	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0408 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Tin, total	7440-31-5	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0411 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00425 mg/L	0.004 mg/L	106	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.398 mg/L	0.4 mg/L	99.4	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1694848)										
WP2422993-001	Anonymous	Aluminum, total	7429-90-5	E420	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, total	7440-39-3	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0418 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0103 mg/L	0.01 mg/L	103	70.0	130	----
		Boron, total	7440-42-8	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	4.11 mg/L	4 mg/L	103	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0102 mg/L	0.01 mg/L	102	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Copper, total	7440-50-8	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, total	7439-89-6	E420	2.11 mg/L	2 mg/L	106	70.0	130	----
		Lead, total	7439-92-1	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1694848) - continued										
WP2422993-001	Anonymous	Lithium, total	7439-93-2	E420	0.0970 mg/L	0.1 mg/L	97.0	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0197 mg/L	0.02 mg/L	98.6	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0414 mg/L	0.04 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.23 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0439 mg/L	0.04 mg/L	110	70.0	130	----
		Silicon, total	7440-21-3	E420	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, total	7440-22-4	E420	0.00411 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, total	7440-23-5	E420	2.11 mg/L	2 mg/L	106	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0198 mg/L	0.02 mg/L	99.2	70.0	130	----
		Sulfur, total	7704-34-9	E420	20.2 mg/L	20 mg/L	101	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Tin, total	7440-31-5	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00413 mg/L	0.004 mg/L	103	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Zinc, total	7440-66-6	E420	0.413 mg/L	0.4 mg/L	103	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0394 mg/L	0.04 mg/L	98.6	70.0	130	----
Dissolved Metals (QCLot: 1694052)										
WP2422329-012	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000838 mg/L	0 mg/L	83.8	70.0	130	----
Dissolved Metals (QCLot: 1696058)										
WP2423294-008	SW-BLANK-01	Mercury, dissolved	7439-97-6	E509	0.0000766 mg/L	0 mg/L	76.6	70.0	130	----
Dissolved Metals (QCLot: 1696499)										
WP2422993-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.209 mg/L	0.2 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0198 mg/L	0.02 mg/L	99.0	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0219 mg/L	0.02 mg/L	109	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0410 mg/L	0.04 mg/L	103	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.099 mg/L	0.1 mg/L	99.3	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00439 mg/L	0.004 mg/L	110	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	4.09 mg/L	4 mg/L	102	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.05 mg/L	2 mg/L	102	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1696499) - continued										
WP2422993-001	Anonymous	Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0192 mg/L	0.02 mg/L	95.8	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.21 mg/L	4 mg/L	105	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.26 mg/L	10 mg/L	92.6	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00402 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.20 mg/L	2 mg/L	110	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	0.0194 mg/L	0.02 mg/L	97.1	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	20.7 mg/L	20 mg/L	104	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00399 mg/L	0.004 mg/L	99.8	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0197 mg/L	0.02 mg/L	98.7	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00408 mg/L	0.004 mg/L	102	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.408 mg/L	0.4 mg/L	102	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0402 mg/L	0.04 mg/L	101	70.0	130	----

Report To		Reports / Recipients		Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)		☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A		☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked		☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX		☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com		☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com		☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com		Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com		Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com		
Company:		Email 6		Analysis Request
		Email 7		
		Email 8		
		Email 9		
Contact:		Email 10		

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB/AP/EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	✓ RSWQ-1	1-Oct-24	11:40	Water			X		7.19	13.22	92
	✓ RSWQ-1 DEEP	1-Oct-24	11:50	Water			X		7.49	13.22	92
	✓ RSWQ-2	1-Oct-24	12:45	Water			X		7.35	12.32	95
	✓ RSWQ-2 DEEP	1-Oct-24	13:00	Water			X		7.7	11.76	95
	✓ RSWQ-3	1-Oct-24	14:00	Water			X		7.55	13.06	95
	✓ RSWQ-3 DEEP	1-Oct-24	14:30	Water			X		7.46	13.04	95
	✓ SW-DUP-01	1-Oct-24	13:25	Water			X		7.35	12.32	95
	✓ SW-BLANK-01	1-Oct-24	13:30	Water			X		/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: CB	Oct 2 2024	Time:	Received by:	Date:	Time:	Received by: AL	Time: Oct 3 9:45

9.9°

Environmental Division
Winnipeg
Work Order Reference
WP2423294

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross - Great Bear Resources					COC receipt info complete	☐
Express TAT?	(no)	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: (2 days)	3 days	4 days
Matrix:	(Water)	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:

Green/white	8X500	Orange/black	
Purple/white	16X125	Dark blue/white	
Red/white	16X60	Black/white	
Dark green/white	8X60	Brown/white	
Grey/white		Pink/white	
Yellow/black	16X40	Beige/white	
Light blue/white		Other (specify)	8X250

Comments:

9.9° ; ice pack

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2423347**		
Client	:	**Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	:	Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	807 630 0203	Telephone	: +1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	: 04-Oct-2024 09:35
PO	:	PPR-022-3	Date Analysis Commenced	: 04-Oct-2024
C-O-C number	:	----	Issue Date	: 15-Oct-2024 15:44
Sampler	:	----		
Site	:	----		
Quote number	:	2024 Standing offer		
No. of samples received	:	8		
No. of samples analysed	:	8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Melissa Hahn	Department Manager - Biology	Administration, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Metals, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-08A	SW-15	SW-08	SW-03	SW-01
					Client sampling date / time	02-Oct-2024 14:40	02-Oct-2024 14:28	02-Oct-2024 14:15	02-Oct-2024 13:30	02-Oct-2024 13:00
						WP2423347-001	WP2423347-002	WP2423347-003	WP2423347-004	WP2423347-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.30	6.98	7.30	7.47	6.44
Temperature, field	----	EF001/WP	0.10	°C		9.90	10.3	12.5	8.80	11.8
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		3.6	4.0	<2.0	3.5	6.3
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		103	44.4	37.1	136	10.2
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		103	44.4	37.1	136	10.2
Conductivity	----	E100/WP	1.0	µS/cm		220	97.9	82.1	258	41.4
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		112	52.4	41.6	127	27.5
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		111	56.1	42.6	107	28.1
pH	----	E108/WP	0.10	pH units		7.80	7.51	7.59	8.07	6.62
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		201	112	84.7	194	98.2
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.1	6.0	12.7	2.2	2.1
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0147	0.0171	0.0198	0.0062	0.0271
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		5.20	0.58	0.32	1.86	0.13
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0264	0.0674	0.0070	<0.0050
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0274	0.0685	0.0070	<0.0051

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-08A	SW-15	SW-08	SW-03	SW-01
					Client sampling date / time	02-Oct-2024 14:40	02-Oct-2024 14:28	02-Oct-2024 14:15	02-Oct-2024 13:30	02-Oct-2024 13:00
						WP2423347-001	WP2423347-002	WP2423347-003	WP2423347-004	WP2423347-005
						Result	Result	Result	Result	Result
Anions and Nutrients										
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0010	0.0011	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0350	0.0330	0.0405	0.0406	0.0226
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		7.19	0.49	0.66	2.47	0.42
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0011
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0100 DLM	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0016	0.0013	<0.0010	<0.0010	0.0013
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		41.7	33.8	22.9	17.4	51.8
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.246	0.328	0.282	0.374	0.456
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00015	0.000088	0.000059	0.000044	0.00017
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00449	0.00313	0.00294	0.00289	0.00524
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.0189	0.0134	0.0116	0.0957	0.00618
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000026	0.000055	0.000020	0.0000094	0.000027
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.000017	0.000019	0.0000028	0.00000094	0.0000033
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.017	0.018	0.0085	0.0088	0.0043
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000102	0.0000063	0.0000038	0.0000122	0.0000081
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		29.0	15.1	11.4	28.8	7.69
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000011	0.000042	0.000026	0.000027	0.0000048
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00094	0.00080	0.00075	0.00103	0.00086

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-08A	SW-15	SW-08	SW-03	SW-01
					Client sampling date / time	02-Oct-2024 14:40	02-Oct-2024 14:28	02-Oct-2024 14:15	02-Oct-2024 13:30	02-Oct-2024 13:00
						WP2423347-001	WP2423347-002	WP2423347-003	WP2423347-004	WP2423347-005
						Result	Result	Result	Result	Result
Total Metals										
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00019	0.00023	0.00020	0.00048	0.00015
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00135	0.00093	0.00101	0.00225	0.00065
Iron, total	7439-89-6	E420/WP	0.010	mg/L		1.09	0.697	0.656	0.949	0.922
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000081	0.000178	0.000187	0.000062	0.000162
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0047	0.0029	0.0026	0.0065	0.0016
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		9.45	4.46	3.43	8.60	2.17
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0290	0.0261	0.0228	0.120	0.00806
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000971	0.000380	0.000203	0.000786	0.000076
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00195	0.00112	0.00091	0.00164	0.00103
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.043	0.036	0.033	0.042	<0.030
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.99	1.16	0.925	2.71	0.117
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00295	0.00218	0.00218	0.00159	0.00063
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000175	Not Detected	0.000012	Not Detected	0.000020
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		6.96	4.31	2.98	7.27	3.90
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.000013	0.000015	0.0000054	0.000148	0.0000019
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		5.77	1.98	1.61	4.22	1.18
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0873	0.0328	0.0269	0.0614	0.0201
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		3.04	0.54	0.48	1.06	0.64
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	0.000032	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000091	0.000016	0.0000048	0.0000023	0.0000041

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-08A	SW-15	SW-08	SW-03	SW-01
					Client sampling date / time	02-Oct-2024 14:40	02-Oct-2024 14:28	02-Oct-2024 14:15	02-Oct-2024 13:30	02-Oct-2024 13:00
						WP2423347-001	WP2423347-002	WP2423347-003	WP2423347-004	WP2423347-005
						Result	Result	Result	Result	Result
Total Metals										
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00018	0.000092	0.000078	0.000061	0.00013
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00869	0.0136	0.0124	0.0167	0.00555
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.00070	0.000038	0.000033	0.00232	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.00219	0.000170	0.000229	0.00110	0.000091
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00148	0.00127	0.00137	0.00232	0.00084
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0026	0.0019	0.0014	0.0040	0.0029
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00082	0.00055	0.00043	0.00041	0.00048
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.174	0.0924	0.0488	0.109	0.412
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00012	0.000075	0.000071	0.000044	0.00016
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00431	0.00281	0.00266	0.00252	0.00490
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.0181	0.0109	0.00904	0.0854	0.00577
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000021	0.000017	0.000013	0.0000073	0.000022
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.015	0.0053	0.0050	0.0068	0.0030
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000055	0.0000084	0.0000042	0.0000086	0.0000075
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		30.6	13.9	11.1	37.0	7.48
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000010	0.0000019	0.0000026	0.0000074	0.0000035
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00078	0.00043	0.00032	0.00045	0.00078
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00016	0.00011	0.000097	0.00031	0.00012

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-08A	SW-15	SW-08	SW-03	SW-01
					Client sampling date / time	02-Oct-2024 14:40	02-Oct-2024 14:28	02-Oct-2024 14:15	02-Oct-2024 13:30	02-Oct-2024 13:00
						WP2423347-001	WP2423347-002	WP2423347-003	WP2423347-004	WP2423347-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00120	0.00071	0.00083	0.00122	0.00059
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.876	0.428	0.362	0.544	0.764
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000049	0.000088	0.000110	0.000042	0.000148
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0040	0.0019	0.0017	0.0051	0.00099
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		8.63	4.29	3.38	8.36	2.15
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.0261	0.0210	0.0164	0.113	0.00597
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000816	0.000316	0.000211	0.000759	0.000071
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00179	0.00089	0.00059	0.00128	0.00106
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.93	1.07	0.844	2.63	0.119
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00290	0.00169	0.00183	0.00134	0.00052
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000188	0.000088	0.000169 DTSE	0.000094	0.000130 DTSE
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		6.89	3.56	2.38	6.53	3.71
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000047	0.0000029	0.0000011	0.000023	0.0000018
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		6.00	1.93	1.58	4.25	1.22
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0824	0.0302	0.0268	0.0615	0.0204
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.76	0.34	0.44	1.15	0.49
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000052	0.0000037	0.0000025	0.0000018	0.0000058
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00016	0.000086	0.000061	0.000054	0.00016

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-08A	SW-15	SW-08	SW-03	SW-01
					Client sampling date / time	02-Oct-2024 14:40	02-Oct-2024 14:28	02-Oct-2024 14:15	02-Oct-2024 13:30	02-Oct-2024 13:00
						WP2423347-001	WP2423347-002	WP2423347-003	WP2423347-004	WP2423347-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	0.000011
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00566	0.00280	0.00200	0.00600	0.00438
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.00065	0.000020	0.000036	0.00213	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.00217	0.000160	0.000219	0.00110	0.000088
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00114	0.00065	0.00074	0.00113	0.00066
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0024	0.00082	0.00060	0.0024	0.0023
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00081	0.00044	0.00035	0.00039	0.00053
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-TR	SW-09	SW-04	----	----
					Client sampling date / time	02-Oct-2024 12:30	02-Oct-2024 11:59	02-Oct-2024 13:50	----	----
						WP2423347-006	WP2423347-007	WP2423347-008	----	----
						Result	Result	Result	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		4.13	7.52	6.57	----	----
Temperature, field	----	EF001/WP	0.10	°C		12.3	9.20	12.7	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		25.8	4.3	3.4	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	37.9	35.2	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-TR	SW-09	SW-04	----	----
					Client sampling date / time	02-Oct-2024 12:30	02-Oct-2024 11:59	02-Oct-2024 13:50	----	----
						WP2423347-006	WP2423347-007	WP2423347-008	----	----
						Result	Result	Result	----	----
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	37.9	35.2	----	----
Conductivity	----	E100/WP	1.0	µS/cm		41.1	83.3	79.6	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		12.7	42.3	39.5	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		13.2	43.9	40.2	----	----
pH	----	E108/WP	0.10	pH units		4.39	7.57	7.51	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		111	86.0	83.0	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		24.2	6.0	4.5	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0089	0.0136	0.0252	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.19	0.28	0.17	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0677	0.0501	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0677	0.0519	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	0.0018	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0176	0.0479	0.0506	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	0.64	0.35	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		0.0011	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-TR	SW-09	SW-04	----	----
					Client sampling date / time	02-Oct-2024 12:30	02-Oct-2024 11:59	02-Oct-2024 13:50	----	----
						WP2423347-006	WP2423347-007	WP2423347-008	----	----
						Result	Result	Result	----	----
Cyanides										
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		0.0012	<0.0010	<0.0010	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		68.9	26.2	24.0	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.813	0.348	0.182	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00023	0.000062	0.000056	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00829	0.00278	0.00288	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00913	0.0116	0.0102	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000032	0.000019	0.000017	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.000011	0.0000037	0.0000021	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0024	0.0056	0.0051	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000179	0.0000073	0.0000033	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		3.50	11.6	10.8	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000013	0.000036	0.000015	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00094	0.00077	0.00062	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00047	0.00021	0.00016	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00048	0.00106	0.00090	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		1.28	0.709	0.549	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000755	0.000196	0.000146	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0027	0.0025	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-TR	SW-09	SW-04	----	----
					Client sampling date / time	02-Oct-2024 12:30	02-Oct-2024 11:59	02-Oct-2024 13:50	----	----
						WP2423347-006	WP2423347-007	WP2423347-008	----	----
						Result	Result	Result	----	----
Total Metals										
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		1.08	3.62	3.22	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00620	0.0195	0.0199	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000095	0.000225	0.000208	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00115	0.00095	0.00074	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.053	0.051	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.035	0.974	0.868	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00020	0.00239	0.00202	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000035	0.0000072	Not Detected	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		4.40	3.20	2.74	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	0.0000041	0.0000030	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		0.984	1.66	1.54	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0199	0.0277	0.0255	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.45	0.38	0.47	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000042	0.0000050	0.0000039	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.00019	0.000085	0.000055	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00893	0.0152	0.00821	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	0.000022	0.000018	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000102	0.000216	0.000198	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-TR	SW-09	SW-04	----	----
					Client sampling date / time	02-Oct-2024 12:30	02-Oct-2024 11:59	02-Oct-2024 13:50	----	----
						WP2423347-006	WP2423347-007	WP2423347-008	----	----
						Result	Result	Result	----	----
Total Metals										
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00131	0.00136	0.00111	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0052	0.0015	0.0010	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00047	0.00050	0.00035	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.774	0.0565	0.0520	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00025	0.000075	0.000063	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00776	0.00253	0.00262	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00870	0.00922	0.00893	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000030	0.000014	0.000012	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		0.000011	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0016	0.0050	0.0045	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000194	0.0000050	0.0000018	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		3.35	11.4	10.7	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.000014	0.0000036	0.0000035	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00084	0.00029	0.00032	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.00047	0.000092	0.00011	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00048	0.00082	0.00076	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		1.24	0.331	0.364	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000764	0.000106	0.000101	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.00096	0.0014	0.0014	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		1.06	3.35	3.10	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-TR	SW-09	SW-04	----	----
					Client sampling date / time	02-Oct-2024 12:30	02-Oct-2024 11:59	02-Oct-2024 13:50	----	----
						WP2423347-006	WP2423347-007	WP2423347-008	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00557	0.0119	0.0183	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000090	0.000210	0.000185	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00111	0.00060	0.00063	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.046	0.880	0.836	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00023	0.00176	0.00168	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000150 DTSE	0.000198 DTSE	0.000158 DTSE	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		4.11	2.32	2.28	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	0.0000024	0.0000015	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		0.958	1.57	1.54	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0199	0.0266	0.0259	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.41	0.38	0.40	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000058	0.0000032	0.0000028	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.00020	0.000067	0.000056	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000021	Not Detected	Not Detected	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00851	0.00236	0.00188	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	0.000028	0.000021	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000102	0.000204	0.000189	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00115	0.00069	0.00071	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-TR	SW-09	SW-04	----	----
					Client sampling date / time	02-Oct-2024 12:30	02-Oct-2024 11:59	02-Oct-2024 13:50	----	----
						WP2423347-006	WP2423347-007	WP2423347-008	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.0048	0.00048	0.00054	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00052	0.00034	0.00033	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2423347**	Page	: 1 of 33
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 04-Oct-2024 09:35
PO	: PPR-022-3	Issue Date	: 15-Oct-2024 15:40
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-MRG3-1694918001	----	Arsenic, total	7440-38-2	E420	0.00011 B mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-01	E298	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-03	E298	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-04	E298	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08	E298	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-08A	E298	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-09	E298	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-15	E298	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-TR	E298	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-01	E235.Cl-L	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-03	E235.Cl-L	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-04	E235.Cl-L	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-08	E235.Cl-L	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-08A	E235.Cl-L	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-09	E235.Cl-L	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-15	E235.Cl-L	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-TR	E235.Cl-L	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-01	E235.NO3-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-03	E235.NO3-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-04	E235.NO3-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-08	E235.NO3-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-08A	E235.NO3-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-09	E235.NO3-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-15	E235.NO3-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO3-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-01	E235.NO2-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-03	E235.NO2-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-04	E235.NO2-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-08	E235.NO2-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-08A	E235.NO2-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-09	E235.NO2-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-15	E235.NO2-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-TR	E235.NO2-L	02-Oct-2024	04-Oct-2024	3 days	2 days	✓	04-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-01	E235.SO4	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-03	E235.SO4	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-04	E235.SO4	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-08	E235.SO4	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-08A	E235.SO4	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-09	E235.SO4	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-15	E235.SO4	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-TR	E235.SO4	02-Oct-2024	04-Oct-2024	28 days	2 days	✓	04-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-01	E372-U	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	10-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-03	E372-U	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	10-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-04	E372-U	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	10-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08	E372-U	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	10-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-08A	E372-U	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	10-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-09	E372-U	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	10-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-15	E372-U	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	10-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-TR	E372-U	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	10-Oct-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-01	E339-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-03	E339-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-04	E339-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-08	E339-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E339-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E339-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E339-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E339-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E333-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E333-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E333-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E333-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E333-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E333-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E333-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E333-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-01	E336-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-03	E336-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-04	E336-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08	E336-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-08A	E336-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-09	E336-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-15	E336-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-TR	E336-L	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	07-Oct-2024	14 days	5 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-01	E421.Cr-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-03	E421.Cr-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-04	E421.Cr-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08	E421.Cr-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.Cr-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-09	E421.Cr-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-15	E421.Cr-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-TR	E421.Cr-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-01	E509	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-03	E509	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08	E509	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-08A	E509	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-09	E509	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-15	E509	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-TR	E509	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-04	E509	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-01	E421	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-03	E421	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-04	E421	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08	E421	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-08A	E421	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-09	E421	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-15	E421	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-TR	E421	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-01	E421.P-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-03	E421.P-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-04	E421.P-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08	E421.P-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-08A	E421.P-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-09	E421.P-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-15	E421.P-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-TR	E421.P-L	02-Oct-2024	09-Oct-2024	180 days	7 days	✓	09-Oct-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-01	EF001	02-Oct-2024	----	----	----		11-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-03	EF001	02-Oct-2024	----	----	----		11-Oct-2024	----	9 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-04	EF001	02-Oct-2024	----	----	----		11-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-08	EF001	02-Oct-2024	----	----	----		11-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-08A	EF001	02-Oct-2024	----	----	----		11-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-09	EF001	02-Oct-2024	----	----	----		11-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-15	EF001	02-Oct-2024	----	----	----		11-Oct-2024	----	9 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-TR	EF001	02-Oct-2024	----	----	----		11-Oct-2024	----	9 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-01	E358-L	02-Oct-2024	05-Oct-2024	28 days	3 days	✓	05-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-03	E358-L	02-Oct-2024	05-Oct-2024	28 days	3 days	✓	05-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
SW-04	E358-L	02-Oct-2024	05-Oct-2024	28 days	3 days	✓	05-Oct-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08	E358-L	02-Oct-2024	05-Oct-2024	28 days	3 days	✓	05-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-08A	E358-L	02-Oct-2024	05-Oct-2024	28 days	3 days	✓	05-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-09	E358-L	02-Oct-2024	05-Oct-2024	28 days	3 days	✓	05-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-15	E358-L	02-Oct-2024	05-Oct-2024	28 days	3 days	✓	05-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-TR	E358-L	02-Oct-2024	05-Oct-2024	28 days	3 days	✓	05-Oct-2024	28 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-01	E283	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-03	E283	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-04	E283	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-08	E283	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	09-Oct-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-08A	E283	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-09	E283	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-15	E283	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-TR	E283	02-Oct-2024	07-Oct-2024	14 days	5 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-01	E290	02-Oct-2024	09-Oct-2024	14 days	7 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-03	E290	02-Oct-2024	09-Oct-2024	14 days	7 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-04	E290	02-Oct-2024	09-Oct-2024	14 days	7 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08	E290	02-Oct-2024	09-Oct-2024	14 days	7 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-08A	E290	02-Oct-2024	09-Oct-2024	14 days	7 days	✓	09-Oct-2024	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-09	E290	02-Oct-2024	09-Oct-2024	14 days	7 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-15	E290	02-Oct-2024	09-Oct-2024	14 days	7 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-TR	E290	02-Oct-2024	09-Oct-2024	14 days	7 days	✓	09-Oct-2024	14 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-01	E100	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-03	E100	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-04	E100	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08	E100	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-08A	E100	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-09	E100	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-15	E100	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-TR	E100	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Physical Tests : pH by Meter										
HDPE SW-08A	E108	02-Oct-2024	09-Oct-2024	0.25 hrs	168 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	168 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-15	E108	02-Oct-2024	09-Oct-2024	0.25 hrs	168 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	168 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-03	E108	02-Oct-2024	09-Oct-2024	0.25 hrs	169 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	169 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-04	E108	02-Oct-2024	09-Oct-2024	0.25 hrs	169 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	169 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-08	E108	02-Oct-2024	09-Oct-2024	0.25 hrs	169 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	169 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-01	E108	02-Oct-2024	09-Oct-2024	0.25 hrs	170 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	170 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-TR	E108	02-Oct-2024	09-Oct-2024	0.25 hrs	170 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	170 hrs	× EHTR-FM

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE SW-09	E108	02-Oct-2024	09-Oct-2024	0.25 hrs	171 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	171 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-01	E162-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-03	E162-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-04	E162-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08	E162-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-08A	E162-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-09	E162-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-15	E162-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-TR	E162-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-01	E160-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-03	E160-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-04	E160-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08	E160-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-08A	E160-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-09	E160-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-15	E160-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-TR	E160-L	02-Oct-2024	----	----	----		07-Oct-2024	7 days	5 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08A	E420.Cr-L	02-Oct-2024	07-Oct-2024	180 days	5 days	✓	07-Oct-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-01	E420.Cr-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-03	E420.Cr-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-04	E420.Cr-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-08	E420.Cr-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-09	E420.Cr-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-15	E420.Cr-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-TR	E420.Cr-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-01	E508	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-03	E508	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08	E508	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-08A	E508	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-15	E508	02-Oct-2024	08-Oct-2024	28 days	6 days	✓	08-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-04	E508	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-09	E508	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-TR	E508	02-Oct-2024	09-Oct-2024	28 days	7 days	✓	09-Oct-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08A	E420	02-Oct-2024	07-Oct-2024	180 days	5 days	✓	07-Oct-2024	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-01	E420	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-03	E420	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-04	E420	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-08	E420	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-09	E420	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-15	E420	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-TR	E420	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08A	E420.P-L	02-Oct-2024	07-Oct-2024	180 days	5 days	✓	07-Oct-2024	180 days	5 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-01	E420.P-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-03	E420.P-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-04	E420.P-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-08	E420.P-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-09	E420.P-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-15	E420.P-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-TR	E420.P-L	02-Oct-2024	08-Oct-2024	180 days	6 days	✓	08-Oct-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1695213	2	28	7.1	5.0	✓
Alkalinity Species by Titration	E290	1695044	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1696147	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1693925	1	9	11.1	5.0	✓
Conductivity in Water	E100	1695043	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1699321	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1696058	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1699326	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1692101	2	34	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1699324	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1695400	2	19	10.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1693923	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1693924	1	9	11.1	5.0	✓
pH by Meter	E108	1695042	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1693921	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1691047	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1694918	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1695395	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1696057	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1694920	2	24	8.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1699944	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1694919	1	8	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1691043	1	14	7.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1695399	2	19	10.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1695213	2	28	7.1	5.0	✓
Alkalinity Species by Titration	E290	1695044	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1696147	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1693925	1	9	11.1	5.0	✓
Conductivity in Water	E100	1695043	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1699321	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1696058	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1699326	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1692101	2	34	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1699324	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1695400	2	19	10.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1693923	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1693924	1	9	11.1	5.0	✓
pH by Meter	E108	1695042	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1693921	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1691047	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1694918	2	8	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1695395	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1696057	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1694920	2	24	8.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1699944	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1694919	2	8	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1691043	1	14	7.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1695399	2	19	10.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1695213	2	28	7.1	5.0	✓
Alkalinity Species by Titration	E290	1695044	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1696147	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1693925	1	9	11.1	5.0	✓
Conductivity in Water	E100	1695043	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1699321	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1696058	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1699326	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1692101	2	34	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1699324	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1695400	2	19	10.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1693923	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1693924	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1693921	1	13	7.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1691047	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1694918	2	8	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1695395	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1696057	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1694920	2	24	8.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1699944	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1694919	2	8	25.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1691043	1	14	7.1	5.0	✓
WAD Cyanide (Low Level)	E336-L	1695399	2	19	10.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1696147	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1693925	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1699321	1	8	12.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1696058	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1699326	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1692101	2	34	5.8	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1699324	1	8	12.5	5.0	✓
Free Cyanide (Low Level)	E339-L	1695400	2	19	10.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1693923	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1693924	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1693921	1	13	7.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1694918	1	8	12.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1695395	2	25	8.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1696057	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1694920	2	24	8.3	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1699944	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1694919	1	8	12.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1695399	2	19	10.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2423347**	Page	: 1 of 24
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 04-Oct-2024 09:35
PO	: PPR-022-3	Date Analysis Commenced	: 04-Oct-2024
C-O-C number	: ----	Issue Date	: 15-Oct-2024 15:42
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Melissa Hahn	Department Manager - Biology	Winnipeg Administration, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1691043)											
WP2423335-002	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	19.8	20.2	2.00%	20%	----
Physical Tests (QC Lot: 1691047)											
WP2423340-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	50.3	44.7	5.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1695042)											
WP2423340-002	Anonymous	pH	----	E108	0.10	pH units	7.07	7.16	1.26%	4%	----
Physical Tests (QC Lot: 1695043)											
WP2423340-002	Anonymous	Conductivity	----	E100	2.0	µS/cm	80.2	80.7	0.622%	10%	----
Physical Tests (QC Lot: 1695044)											
WP2423340-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	10.4	11.3	8.29%	20%	----
Physical Tests (QC Lot: 1695213)											
WP2423294-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1695218)											
WP2423298-007	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.2	3.0	0.2	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1693921)											
WP2423347-001	SW-08A	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	7.19	7.06	1.82%	20%	----
Anions and Nutrients (QC Lot: 1693923)											
WP2423347-001	SW-08A	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1693924)											
WP2423347-001	SW-08A	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1693925)											
WP2423347-001	SW-08A	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	5.20	5.13	1.35%	20%	----
Anions and Nutrients (QC Lot: 1696147)											
WP2423217-008	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.154	0.136	12.0%	20%	----
Anions and Nutrients (QC Lot: 1699944)											
WP2423348-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0052	0.0048	0.0004	Diff <2x LOR	----
Cyanides (QC Lot: 1695395)											
WP2423304-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1695399)											
WP2423304-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1695400)											
WP2423304-001	Anonymous	Cyanide, free	----	E339-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1695404)											
WP2423347-003	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1695405)											
WP2423347-003	SW-08	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1695406)											
WP2423347-003	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1692101)											
WP2422502-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	12.7	11.8	7.66%	20%	----
Organic / Inorganic Carbon (QC Lot: 1692458)											
WP2422527-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.4	11.5	1.47%	20%	----
Total Metals (QC Lot: 1694918)											
WP2423347-001	SW-08A	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00094	0.00101	0.00006	Diff <2x LOR	----
Total Metals (QC Lot: 1694919)											
WP2423347-001	SW-08A	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.043	0.046	0.004	Diff <2x LOR	----
Total Metals (QC Lot: 1694920)											
WP2423347-001	SW-08A	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.246	0.250	1.62%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00015	0.00014	0.000008	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00449	0.00452	0.695%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0189	0.0185	1.89%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.000026	0.000030	0.000004	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.017	0.016	0.0002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000102	0.0000083	0.0000019	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	29.0	28.6	1.26%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000011	<0.000010	0.0000009	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00019	0.00020	0.000008	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00135	0.00133	0.00002	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	1.09	1.09	0.204%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000081	0.000082	0.0000007	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0047	0.0046	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	9.45	9.41	0.452%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0290	0.0289	0.232%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1694920) - continued											
WP2423347-001	SW-08A	Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000971	0.000881	9.73%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00195	0.00191	0.00005	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.99	1.98	0.450%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00295	0.00305	3.48%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000175	0.000167	0.000008	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	6.96	6.94	0.320%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000013	<0.000010	0.000003	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	5.77	5.70	1.25%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0873	0.0837	4.22%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	3.04	2.96	0.09	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00018	0.00018	0.000006	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00869	0.00860	1.05%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00070	0.00070	0.000003	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00219	0.00221	0.973%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00148	0.00146	0.00001	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00082	0.00076	0.00006	Diff <2x LOR	----
Total Metals (QC Lot: 1696057)											
WP2423298-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1696224)											
WP2423437-006	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	6.28	6.19	1.40%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00020	0.00019	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.773	0.784	1.43%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	0.000317	0.000308	2.87%	20%	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	0.000079	0.000071	0.000008	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.618	0.597	3.46%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.000129	0.000123	5.20%	20%	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	185	188	1.52%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000496	0.000482	2.80%	20%	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00640	0.00605	5.62%	20%	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0169	0.0152	10.2%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1696224) - continued											
WP2423437-006	Anonymous	Iron, total	7439-89-6	E420	0.010	mg/L	30.6	34.2	10.9%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.00409	0.00379	7.44%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0209	0.0205	2.33%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	82.0	79.8	2.69%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	2.07	2.06	0.496%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00832	0.00796	4.40%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.0356	0.0342	4.05%	20%	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	99.2	96.4	2.83%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.112	0.109	2.08%	20%	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	29.0	30.0	3.49%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	0.000066	0.000055	0.000010	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.500	mg/L	550	516	6.50%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.612	0.612	0.0751%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	9.96	9.45	5.23%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000070	0.000070	0.0000004	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.00062	0.00069	0.00007	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.245	0.240	2.05%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	0.00030	0.00026	0.00004	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.00198	0.00178	10.9%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.0782	0.0832	6.24%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0498	0.0420	17.0%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00638	0.00713	11.2%	20%	----
Total Metals (QC Lot: 1698491)											
WP2423347-006	SW-TR	Mercury, total	7439-97-6	E508	0.0000050	mg/L	0.0000050	<0.0000050	0.00000003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1696058)											
WP2423294-007	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1698492)											
WP2423347-008	SW-04	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1699321)											
WP2423347-001	SW-08A	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00078	0.00080	0.00002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1699324)											
WP2423347-001	SW-08A	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1699326)											
WP2423347-001	SW-08A	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.174	0.170	2.32%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00012	0.00013	0.000008	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00431	0.00432	0.134%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0181	0.0185	2.42%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000021	0.000029	0.000008	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.015	0.016	0.0009	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000055	<0.0000050	0.0000005	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	30.6	30.0	1.86%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00016	0.00016	0.0000001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00120	0.00118	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.876	0.889	1.42%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	0.000057	0.000007	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0040	0.0039	0.0001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	8.63	8.81	2.03%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0261	0.0262	0.454%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000816	0.000839	2.75%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00179	0.00176	0.00004	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.93	1.96	1.32%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00290	0.00281	3.32%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000188	0.000229	0.000041	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.89	6.93	0.575%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	6.00	5.89	1.79%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0824	0.0857	3.98%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	2.76	2.74	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	0.00016	0.00017	0.000004	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00566	0.00546	3.66%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00065	0.00063	0.00001	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00217	0.00217	0.315%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1699326) - continued											
WP2423347-001	SW-08A	Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00114	0.00112	0.00002	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0024	0.0027	0.0004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00081	0.00083	0.00002	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1691043)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1691047)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1695043)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1695044)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1695213)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1695218)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Anions and Nutrients (QCLot: 1693921)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1693923)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1693924)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1693925)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1696147)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1699944)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1695395)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1695399)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1695400)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1695404)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1695405)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1695405) - continued						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1695406)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1692101)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1692458)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1694918)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1694919)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1694920)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	# 0.00011	B
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1694920) - continued						
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1696057)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1696222)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1696223)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1696224)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1696224) - continued						
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1698491)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1696058)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1698492)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1699321)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1699324)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1699326)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1699326) - continued						
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1699326) - continued						
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1691043)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 1691047)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	98.0	85.0	115	----
Physical Tests (QCLot: 1695042)									
pH	----	E108	----	pH units	7 pH units	98.1	98.0	102	----
Physical Tests (QCLot: 1695043)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1695044)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1695213)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	110	85.0	115	----
Physical Tests (QCLot: 1695218)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 1693921)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1693923)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1693924)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	97.8	90.0	110	----
Anions and Nutrients (QCLot: 1693925)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1696147)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.7	85.0	115	----
Anions and Nutrients (QCLot: 1699944)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.2	80.0	120	----
Cyanides (QCLot: 1695395)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	92.0	80.0	120	----
Cyanides (QCLot: 1695399)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	92.7	80.0	120	----
Cyanides (QCLot: 1695400)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1695400) - continued									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	89.7	80.0	120	----
Cyanides (QCLot: 1695404)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	90.1	80.0	120	----
Cyanides (QCLot: 1695405)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	87.8	80.0	120	----
Cyanides (QCLot: 1695406)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	92.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1692101)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	101	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1692458)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	101	80.0	120	----
Total Metals (QCLot: 1694918)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Total Metals (QCLot: 1694919)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	100	80.0	120	----
Total Metals (QCLot: 1694920)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	99.4	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	102	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	98.3	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	94.7	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	97.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.0	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	96.2	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.6	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	98.4	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.1	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	96.9	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	95.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1694920) - continued									
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	96.9	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	92.3	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	95.4	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	99.4	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	97.2	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.1	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.7	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	103	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	96.6	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.2	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	97.3	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	96.1	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	99.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	93.5	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.0	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.3	80.0	120	----
Total Metals (QCLot: 1696057)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.2	80.0	120	----
Total Metals (QCLot: 1696222)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	98.8	80.0	120	----
Total Metals (QCLot: 1696223)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	106	80.0	120	----
Total Metals (QCLot: 1696224)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	99.8	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	95.8	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	99.2	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.1	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.2	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	102	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	92.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1696224) - continued									
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.9	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.7	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	95.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	92.3	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	109	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	108	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	96.9	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	97.0	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.8	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	95.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	102	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	89.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.4	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	111	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	91.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	96.7	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	93.7	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	94.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	95.7	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	97.2	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	94.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.3	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	96.8	80.0	120	----
Total Metals (QCLot: 1698491)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	95.2	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	95.8	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.2	80.0	120	----
Dissolved Metals (QCLot: 1699321)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	93.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	91.8	80.0	120	----
Dissolved Metals (QCLot: 1699326)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1699326) - continued									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	95.6	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	91.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.0	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.2	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	91.5	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	98.5	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	96.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	92.9	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	91.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	90.0	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	92.2	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	95.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.1	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	91.0	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	92.1	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	95.1	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	87.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	96.2	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	88.2	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.6	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	95.7	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	92.2	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.8	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	93.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.3	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	88.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	95.1	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.5	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	93.8	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	94.2	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1699326) - continued									
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	92.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1693921)										
WP2423347-001	SW-08A	Sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1693923)										
WP2423347-001	SW-08A	Nitrate (as N)	14797-55-8	E235.NO3-L	2.60 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1693924)										
WP2423347-001	SW-08A	Nitrite (as N)	14797-65-0	E235.NO2-L	0.505 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1693925)										
WP2423347-001	SW-08A	Chloride	16887-00-6	E235.Cl-L	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1696147)										
WP2423217-008	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1699944)										
WP2423348-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.234 mg/L	0.25 mg/L	93.6	70.0	130	----
Cyanides (QCLot: 1695395)										
WP2423304-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.219 mg/L	0.25 mg/L	87.7	75.0	125	----
Cyanides (QCLot: 1695399)										
WP2423304-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.106 mg/L	0.125 mg/L	84.7	75.0	125	----
Cyanides (QCLot: 1695400)										
WP2423304-001	Anonymous	Cyanide, free	----	E339-L	0.105 mg/L	0.125 mg/L	84.0	75.0	125	----
Cyanides (QCLot: 1695404)										
WP2423347-003	SW-08	Cyanide, weak acid dissociable	----	E336-L	0.109 mg/L	0.125 mg/L	87.1	75.0	125	----
Cyanides (QCLot: 1695405)										
WP2423347-003	SW-08	Cyanide, free	----	E339-L	0.110 mg/L	0.125 mg/L	87.8	75.0	125	----
Cyanides (QCLot: 1695406)										
WP2423347-003	SW-08	Cyanide, strong acid dissociable (Total)	----	E333-L	0.203 mg/L	0.25 mg/L	81.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1692101)										
WP2422388-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.84 mg/L	5 mg/L	96.8	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1692458)										
WP2422527-002	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1694918)										
WP2423347-001	SW-08A	Chromium, total	7440-47-3	E420.Cr-L	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
Total Metals (QCLot: 1694919)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1694919) - continued										
WP2423347-001	SW-08A	Phosphorus, total	7723-14-0	E420.P-L	10.7 mg/L	10 mg/L	107	70.0	130	----
Total Metals (QCLot: 1694920)										
WP2423347-001	SW-08A	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0209 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Barium, total	7440-39-3	E420	0.0200 mg/L	0.02 mg/L	99.8	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Boron, total	7440-42-8	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, total	7440-50-8	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Iron, total	7439-89-6	E420	2.04 mg/L	2 mg/L	102	70.0	130	----
		Lead, total	7439-92-1	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, total	7439-93-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0417 mg/L	0.04 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	4.16 mg/L	4 mg/L	104	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0436 mg/L	0.04 mg/L	109	70.0	130	----
		Silicon, total	7440-21-3	E420	9.27 mg/L	10 mg/L	92.7	70.0	130	----
		Silver, total	7440-22-4	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.3 mg/L	20 mg/L	107	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0421 mg/L	0.04 mg/L	105	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, total	7440-31-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.412 mg/L	0.4 mg/L	103	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
Total Metals (QCLot: 1696057)										
WP2423298-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000833 mg/L	0 mg/L	83.3	70.0	130	----
Total Metals (QCLot: 1696224)										
WP2423437-006	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1696224) - continued										
WP2423437-006	Anonymous	Antimony, total	7440-36-0	E420	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0496 mg/L	0.04 mg/L	124	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.00989 mg/L	0.01 mg/L	98.9	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0109 mg/L	0.01 mg/L	109	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0196 mg/L	0.02 mg/L	97.9	70.0	130	----
		Copper, total	7440-50-8	E420	0.0164 mg/L	0.02 mg/L	82.2	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0186 mg/L	0.02 mg/L	92.9	70.0	130	----
		Lithium, total	7439-93-2	E420	0.115 mg/L	0.1 mg/L	115	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0215 mg/L	0.02 mg/L	108	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0366 mg/L	0.04 mg/L	91.5	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	----	ND	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	----	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	25.7 mg/L	20 mg/L	128	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0465 mg/L	0.04 mg/L	116	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00380 mg/L	0.004 mg/L	95.0	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, total	7440-31-5	E420	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, total	7440-32-6	E420	ND mg/L	----	ND	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0219 mg/L	0.02 mg/L	109	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00388 mg/L	0.004 mg/L	97.1	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.117 mg/L	0.1 mg/L	117	70.0	130	----
		Zinc, total	7440-66-6	E420	0.421 mg/L	0.4 mg/L	105	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0473 mg/L	0.04 mg/L	118	70.0	130	----
Total Metals (QCLot: 1698491)										
WP2423347-007	SW-09	Mercury, total	7439-97-6	E508	0.0000796 mg/L	0 mg/L	79.6	70.0	130	----
Dissolved Metals (QCLot: 1696058)										
WP2423294-008	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000766 mg/L	0 mg/L	76.6	70.0	130	----
Dissolved Metals (QCLot: 1698492)										
WP2423410-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000905 mg/L	0 mg/L	90.5	70.0	130	----
Dissolved Metals (QCLot: 1699321)										
WP2423347-001	SW-08A	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0406 mg/L	0.04 mg/L	101	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1699324)										
WP2423347-001	SW-08A	Phosphorus, dissolved	7723-14-0	E421.P-L	11.0 mg/L	10 mg/L	110	70.0	130	----
Dissolved Metals (QCLot: 1699326)										
WP2423347-001	SW-08A	Aluminum, dissolved	7429-90-5	E421	0.216 mg/L	0.2 mg/L	108	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0414 mg/L	0.04 mg/L	103	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00988 mg/L	0.01 mg/L	98.8	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00424 mg/L	0.004 mg/L	106	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0108 mg/L	0.01 mg/L	108	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.01 mg/L	2 mg/L	100	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0967 mg/L	0.1 mg/L	96.7	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0399 mg/L	0.04 mg/L	99.8	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	3.96 mg/L	4 mg/L	99.0	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0451 mg/L	0.04 mg/L	113	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.31 mg/L	10 mg/L	93.1	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00395 mg/L	0.004 mg/L	98.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.8 mg/L	20 mg/L	109	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0434 mg/L	0.04 mg/L	108	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00398 mg/L	0.004 mg/L	99.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0201 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00425 mg/L	0.004 mg/L	106	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.423 mg/L	0.4 mg/L	106	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2423347

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Tin
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no s
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20%
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25%
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50%
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100%
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to r holidays and f
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time Re
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	Analy
Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com

ALS Lab Work Order # (ALS use only):	ALS Contact: Judy Dalmaijer	Sampler: CR/EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
-1	SW-08a	2-Oct-24	14:40	Water	9	X			7.3	9.9	160.7
-2	SW-15	2-Oct-24	14:28	Water	9		X		6.98	10.27	113
-3	SW-08	2-Oct-24	14:15	Water	9	X			7.3	12.5	64.9
-4	SW-03	2-Oct-24	13:30	Water	9	X			7.47	8.8	181
-5	SW-01	2-Oct-24	13:00	Water	9	X			6.44	11.8	33.6
-6	SW-TR	2-Oct-24	12:30	Water	9	X			4.13	12.3	36.2
-7	SW-09	2-Oct-24	11:59	Water	9	X			7.52	9.2	95
-8	SW-04	2-Oct-24	13:50	water	9	X			6.57	12.7	103.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Oct 3 2024	Time:	Received by:	Date: oct 4	Time: 9:35	Received by: AK	Time: 10.30

cooler 1/2

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CR/EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-08a	2-Oct-24	14:40	Water	9	X			7.3	9.9	160.7
	SW-15	2-Oct-24	14:28	Water	9		X		6.98	10.27	113
	SW-08	2-Oct-24	14:15	Water	9	X			7.3	12.5	64.9
	SW-03	2-Oct-24	13:30	Water	9	X			7.47	8.8	181
	SW-01	2-Oct-24	13:00	Water	9	X			6.44	11.8	33.6
	SW-TR	2-Oct-24	12:30	Water	9	X			4.13	12.3	36.2
	SW-09	2-Oct-24	11:59	Water	9	X			7.52	9.2	95
	SW-04	2-Oct-24	13:50	Water	9	X			6.57	12.7	103.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Oct 3 2024	Time:	Received by:	Date:	Time:	Received by:	Time:

Sample Intake

Client: Kinross - Great Bear				COC receipt info complete ☐		
Express TAT?	(no)	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: (2 days)	3 days	4 days
Matrix	(Water)	Soil/solid	Air	Biota	Food/micro	Other
Total number of bottles/fractions:	54					
Green/white	8 x 500		Orange/black			
Purple/white	16 x 125		Dark blue/white			
Red/white	16 x 100		Black/white			
Dark green/white	8 x 100		Brown/white			
Grey/white			Pink/white			
Yellow/black	16 x 60		Beige/white			
Light blue/white			Other (specify)	clear	8 x 250	

Comments:
10.3° ; ice pack

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			Client Contacts	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			Post-committing	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			Action Required?	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	: **WP2423572**		
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 08-Oct-2024 09:58
PO	: PPR-022-3	Date Analysis Commenced	: 08-Oct-2024
C-O-C number	: ----	Issue Date	: 18-Oct-2024 14:20
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Oleksandr Busel		Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Administration, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	CR-DS	CR-FDP	CR-REF	SW-GL02	SW-DUP02
				Client sampling date / time	06-Oct-2024 09:50	06-Oct-2024 09:20	06-Oct-2024 08:20	05-Oct-2024 14:50	05-Oct-2024 14:50
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	WP2423572-001	WP2423572-002	WP2423572-003	WP2423572-004	WP2423572-005
					Result	Result	Result	Result	Result
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	6.62	6.56	7.22	7.31	7.31
Temperature, field	----	EF001/WP	0.10	°C	8.56	8.61	7.40	8.60	8.60
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	2.1	<2.0	<2.0	4.2	4.1
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	35.8	30.2	31.3	58.2	57.8
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	35.8	30.2	31.3	58.2	57.8
Conductivity	----	E100/WP	1.0	µS/cm	96.4	88.1	90.1	119	119
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	39.4	37.1	37.5	59.6	58.8
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	40.2	38.8	42.8	60.7	60.8
pH	----	E108/WP	0.10	pH units	7.71	7.45	7.46	7.78	7.77
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	59.1	58.5	60.8	98.5	102
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	6.1	6.8	107	4.4	5.6
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0211	0.0165	0.0168	0.0110	0.0103
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	2.73	2.96	2.93	0.51	0.51
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	0.0076	<0.0050	<0.0050	0.0662	0.0677
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	0.0076	<0.0051	<0.0051	0.0662	0.0677

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	CR-DS	CR-FDP	CR-REF	SW-GL02	SW-DUP02
					Client sampling date / time	06-Oct-2024 09:50	06-Oct-2024 09:20	06-Oct-2024 08:20	05-Oct-2024 14:50	05-Oct-2024 14:50
						WP2423572-001	WP2423572-002	WP2423572-003	WP2423572-004	WP2423572-005
						Result	Result	Result	Result	Result
Anions and Nutrients										
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0281	0.0288	0.0883	0.0348	0.0268
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		5.63	6.13	6.22	1.23	1.22
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		16.2	14.6	14.3	20.5	20.7
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.222	0.217	1.04	0.105	0.0973
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00032	0.00031	0.00032	0.000060	0.000053
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00896	0.00946	0.0107	0.00309	0.00308
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00905	0.00881	0.0183	0.00944	0.00941
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000016	0.000011	0.000042	0.000012	0.000012
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.000012	0.0000036	0.000011	0.0000013	0.0000020
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0067	0.0068	0.0069	0.0048	0.0047
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000083	0.0000057	0.0000218	0.0000083	0.0000088
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.5	11.1	12.0	18.0	18.0
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000024	0.000026	0.000138	0.000019	0.000016
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00048	0.00046	0.00203	0.00056	0.00053

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	CR-DS	CR-FDP	CR-REF	SW-GL02	SW-DUP02
					Client sampling date / time	06-Oct-2024 09:50	06-Oct-2024 09:20	06-Oct-2024 08:20	05-Oct-2024 14:50	05-Oct-2024 14:50
						WP2423572-001	WP2423572-002	WP2423572-003	WP2423572-004	WP2423572-005
						Result	Result	Result	Result	Result
Total Metals										
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00015	0.00015	0.00079	0.00029	0.00026
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00134	0.00138	0.00303	0.00045	0.00045
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.287	0.263	1.20	1.22	1.20
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000108	0.000099	0.000873	0.000045	0.000037
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0026	0.0030	0.0036	0.0035	0.0036
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.79	2.69	3.13	3.83	3.85
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0118	0.0106	0.0495	0.0633	0.0606
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000216	0.000200	0.000184	0.000410	0.000274
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00138	0.00136	0.00302	0.00075	0.00074
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.031	0.031	0.098	0.034	0.034
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.02	0.968	1.15	1.06	1.06
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00200	0.00203	0.00377	0.00288	0.00306
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000096	0.000073	0.000035	0.000053	0.000037
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.49	2.44	3.64	6.86	6.90
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000034	0.0000023	0.0000060	Not Detected	0.0000013
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.34	2.41	2.42	1.76	1.70
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0318	0.0315	0.0353	0.0436	0.0427
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.92	2.08	2.25	0.55	0.55
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		0.000064	0.000032	Not Detected	0.000022	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000085	0.0000041	0.000018	0.0000046	0.0000043

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	CR-DS	CR-FDP	CR-REF	SW-GL02	SW-DUP02
					Client sampling date / time	06-Oct-2024 09:50	06-Oct-2024 09:20	06-Oct-2024 08:20	05-Oct-2024 14:50	05-Oct-2024 14:50
						WP2423572-001	WP2423572-002	WP2423572-003	WP2423572-004	WP2423572-005
						Result	Result	Result	Result	Result
Total Metals										
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000055	0.000052	0.00018	0.000083	0.000085
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	0.000025	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00892	0.00992	0.0528	0.00416	0.00368
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000031	0.000028	0.000033	0.000013	0.000012
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000115	0.000110	0.000263	0.000158	0.000159
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00085	0.00082	0.00268	0.00100	0.00098
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0011	0.0010	0.0044	0.0012	0.00086
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00024	0.00024	0.00049	0.00026	0.00027
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0317	0.0254	0.0268	0.0775	0.0806
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00027	0.00031	0.00030	0.000041	0.000048
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00843	0.00908	0.00877	0.00291	0.00299
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00772	0.00742	0.00792	0.00881	0.00875
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000048	0.0000072	0.0000046	0.000010	0.0000099
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0056	0.0060	0.0056	0.0039	0.0040
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000022	0.0000022	0.0000029	0.0000050	0.0000029
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.0	10.4	10.6	17.0	16.9
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000012	0.0000033	Not Detected	0.000013	0.000013
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00020	0.00016	0.00014	0.00057	0.00057
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000065	0.000056	0.000066	0.00015	0.00014

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	CR-DS	CR-FDP	CR-REF	SW-GL02	SW-DUP02
					Client sampling date / time	06-Oct-2024 09:50	06-Oct-2024 09:20	06-Oct-2024 08:20	05-Oct-2024 14:50	05-Oct-2024 14:50
						WP2423572-001	WP2423572-002	WP2423572-003	WP2423572-004	WP2423572-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00116	0.00120	0.00128	0.00044	0.00048
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.100	0.072	0.062	1.07	1.06
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000036	0.000028	0.000030	0.000023	0.000024
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0012	0.0012	0.0011	0.0020	0.0020
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.89	2.70	2.69	4.16	4.02
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00382	0.00271	0.00283	0.0180	0.0179
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000197	0.000211	0.000220	0.000272	0.000315
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00116	0.00120	0.00122	0.00081	0.00077
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.08	1.06	1.05	1.22	1.20
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00164	0.00176	0.00151	0.00305	0.00296
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000100	0.000086	0.000108 DTSE	0.000088	0.000080
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.14	2.00	2.00	6.81	6.83
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000019	0.0000039	0.0000021	Not Detected	0.0000014
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.64	2.75	2.70	2.00	1.91
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0300	0.0307	0.0303	0.0411	0.0429
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.94	2.07	2.13	0.55	0.51
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		0.000042	0.000051	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000024	0.0000030	0.0000016	0.0000032	0.0000031
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000030	0.000029	0.000028	0.000068	0.00012

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	CR-DS	CR-FDP	CR-REF	SW-GL02	SW-DUP02
					Client sampling date / time	06-Oct-2024 09:50	06-Oct-2024 09:20	06-Oct-2024 08:20	05-Oct-2024 14:50	05-Oct-2024 14:50
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit		WP2423572-001	WP2423572-002	WP2423572-003	WP2423572-004	WP2423572-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00088	0.00068	0.00092	0.00310	0.00335
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000024	0.000031	0.000025	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000089	0.000088	0.000094	0.000144	0.000146
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00043	0.00040	0.00041	0.00076	0.00076
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00052	0.00048	0.00052	0.00097	0.00086
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00017	0.00014	0.00016	0.00031	0.00038
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	SW-BLANK02	SW-18	SW-11	SW-17	----
					Client sampling date / time	05-Oct-2024 14:50	05-Oct-2024 14:00	05-Oct-2024 12:35	05-Oct-2024 11:25	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit		WP2423572-006	WP2423572-007	WP2423572-008	WP2423572-009	----
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		----	5.36	6.84	6.52	----
Temperature, field	----	EF001/WP	0.10	°C		----	9.60	7.50	7.00	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	27.4	14.7	7.3	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	2.8	64.7	6.2	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-BLANK02	SW-18	SW-11	SW-17	----
					Client sampling date / time	05-Oct-2024 14:50	05-Oct-2024 14:00	05-Oct-2024 12:35	05-Oct-2024 11:25	----
						WP2423572-006	WP2423572-007	WP2423572-008	WP2423572-009	----
						Result	Result	Result	Result	----
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	2.8	64.7	6.2	----
Conductivity	----	E100/WP	1.0	µS/cm		1.0	28.5	145	25.1	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		<0.50	12.9	78.5	11.0	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		<0.50	13.6	81.1	11.9	----
pH	----	E108/WP	0.10	pH units		5.12	5.42	7.67	6.52	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		3.2	90.7	161	39.0	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		<1.0	3.9	3.9	2.7	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		<0.0050	0.0215	0.0596	0.0100	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		----	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.016	0.36	2.79	0.35	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	0.0402	<0.0050	<0.0050	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	0.0402	<0.0051	<0.0051	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.00082	0.0504	0.0533	0.0405	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		<0.30	0.53	1.43	<0.30	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	0.0010	0.0014	<0.0010	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-BLANK02	SW-18	SW-11	SW-17	----
					Client sampling date / time	05-Oct-2024 14:50	05-Oct-2024 14:00	05-Oct-2024 12:35	05-Oct-2024 11:25	----
						WP2423572-006	WP2423572-007	WP2423572-008	WP2423572-009	----
						Result	Result	Result	Result	----
Cyanides										
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0012	<0.0010	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	0.0012	<0.0010	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		<0.50	45.0	55.0	29.6	----
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.00084	1.28	0.430	0.340	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		Not Detected	0.00021	0.00014	0.00010	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.000046	0.00492	0.00549	0.00384	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		Not Detected	0.00978	0.0186	0.00632	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000013	0.000076	0.000043	0.000023	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000021	0.0000086	0.0000080	0.0000030	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0053	0.0022	0.0087	0.0040	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		Not Detected	0.0000204	0.0000233	0.0000052	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		Not Detected	3.60	20.7	3.08	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		Not Detected	0.000026	0.0000048	0.000024	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	0.00216	0.00152	0.00145	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		Not Detected	0.00094	0.00109	0.00017	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		Not Detected	0.00216	0.00162	0.00055	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		Not Detected	1.86	1.78	2.64	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		Not Detected	0.000299	0.000169	0.000075	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-BLANK02	SW-18	SW-11	SW-17	----
					Client sampling date / time	05-Oct-2024 14:50	05-Oct-2024 14:00	05-Oct-2024 12:35	05-Oct-2024 11:25	----
						WP2423572-006	WP2423572-007	WP2423572-008	WP2423572-009	----
						Result	Result	Result	Result	----
Total Metals										
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		Not Detected	0.0015	0.0026	0.00049	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		0.0018	1.11	7.14	1.03	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		Not Detected	0.0287	0.211	0.00503	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	0.0000080	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		Not Detected	0.000122	0.000270	0.000055	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		Not Detected	0.00153	0.00328	0.00088	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.036	0.064	0.038	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		Not Detected	0.106	1.21	0.585	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		Not Detected	0.00060	0.00164	0.00404	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000052	0.000079	0.000217	0.000128	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.028	12.0	6.29	0.15	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	0.0000071	0.0000091	0.0000031	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		0.028	2.20	5.22	1.17	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		Not Detected	0.0214	0.0498	0.0153	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		Not Detected	0.45	1.06	0.24	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	0.0000078	0.0000042	0.0000041	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	0.00073	0.00029	0.00013	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-BLANK02	SW-18	SW-11	SW-17	----
					Client sampling date / time	05-Oct-2024 14:50	05-Oct-2024 14:00	05-Oct-2024 12:35	05-Oct-2024 11:25	----
						WP2423572-006	WP2423572-007	WP2423572-008	WP2423572-009	----
						Result	Result	Result	Result	----
Total Metals										
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		Not Detected	0.0162	0.0125	0.00611	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	0.00013	Not Detected	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		Not Detected	0.000612	0.000152	0.000038	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.000091	0.00301	0.00182	0.00239	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		Not Detected	0.0013	0.0021	0.0027	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		Not Detected	0.00108	0.00136	0.00034	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.00054	1.25	0.420	0.298	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		Not Detected	0.00020	0.00014	0.000100	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		Not Detected	0.00481	0.00571	0.00355	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		Not Detected	0.0102	0.0197	0.00641	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		Not Detected	0.000058	0.000045	0.000018	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	0.0000055	0.000011	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0019	0.0011	0.0075	0.0032	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000016	0.0000181	0.0000258	0.0000043	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		0.0050	3.39	19.6	2.79	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	0.000019	0.0000034	0.000021	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	0.00217	0.00156	0.00143	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.0000018	0.00091	0.00110	0.00016	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-BLANK02	SW-18	SW-11	SW-17	----
					Client sampling date / time	05-Oct-2024 14:50	05-Oct-2024 14:00	05-Oct-2024 12:35	05-Oct-2024 11:25	----
						WP2423572-006	WP2423572-007	WP2423572-008	WP2423572-009	----
						Result	Result	Result	Result	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		Not Detected	0.00173	0.00169	0.00055	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.0011	1.58	1.56	1.95	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		Not Detected	0.000234	0.000148	0.000060	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		Not Detected	0.0015	0.0026	Not Detected	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		0.00079	1.07	7.17	0.972	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.000040	0.0261	0.208	0.00440	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	0.0000054	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		Not Detected	0.000116	0.000294	0.000060	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.000068	0.00154	0.00336	0.00088	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	0.074	<0.030	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		Not Detected	0.086	1.33	0.615	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		Not Detected	0.00045	0.00155	0.00404	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	0.000207 DTSE	0.000272	0.000099	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		Not Detected	11.4	5.80	0.126	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	0.0000056	0.000015	0.0000030	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		0.018	1.91	5.35	1.15	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		Not Detected	0.0214	0.0523	0.0150	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		Not Detected	0.46	1.02	0.24	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	0.000022	Not Detected	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID: SW-BLANK02	SW-18	SW-11	SW-17	----
					Client sampling date / time: 05-Oct-2024 14:50	05-Oct-2024 14:00	05-Oct-2024 12:35	05-Oct-2024 11:25	----
					WP2423572-006	WP2423572-007	WP2423572-008	WP2423572-009	----
					Result	Result	Result	Result	----
Dissolved Metals									
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L	Not Detected	0.0000071	0.0000068	0.0000057	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L	Not Detected	0.00074	0.00041	0.00014	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L	Not Detected	0.000013	0.000016	Not Detected	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L	Not Detected	0.0153	0.0133	0.00565	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L	Not Detected	Not Detected	0.00014	Not Detected	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L	Not Detected	0.000592	0.000155	0.000036	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L	Not Detected	0.00263	0.00148	0.00168	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L	0.0014	0.00078	0.0024	0.0032	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L	Not Detected	0.00121	0.00183	0.00048	----
Dissolved mercury filtration location	----	EP509/WP	-	-	Field	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-	Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2423572**	Page	: 1 of 35
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 08-Oct-2024 09:58
PO	: PPR-022-3	Issue Date	: 18-Oct-2024 14:10
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-DS	E298	06-Oct-2024	10-Oct-2024	28 days	4 days	✓	10-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-FDP	E298	06-Oct-2024	10-Oct-2024	28 days	4 days	✓	10-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) CR-REF	E298	06-Oct-2024	10-Oct-2024	28 days	4 days	✓	10-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-11	E298	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-17	E298	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-18	E298	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-BLANK02	E298	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP02	E298	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL02	E298	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-DS	E235.Cl-L	06-Oct-2024	08-Oct-2024	28 days	2 days	✓	08-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-FDP	E235.Cl-L	06-Oct-2024	08-Oct-2024	28 days	2 days	✓	08-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE CR-REF	E235.Cl-L	06-Oct-2024	08-Oct-2024	28 days	2 days	✓	08-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-11	E235.Cl-L	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-17	E235.Cl-L	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-18	E235.Cl-L	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-BLANK02	E235.Cl-L	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-DUP02	E235.Cl-L	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-GL02	E235.Cl-L	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-DS	E235.NO3-L	06-Oct-2024	08-Oct-2024	3 days	2 days	✓	08-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-FDP	E235.NO3-L	06-Oct-2024	08-Oct-2024	3 days	2 days	✓	08-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE CR-REF	E235.NO3-L	06-Oct-2024	08-Oct-2024	3 days	2 days	✓	08-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-11	E235.NO3-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-17	E235.NO3-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-18	E235.NO3-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-BLANK02	E235.NO3-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-DUP02	E235.NO3-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-GL02	E235.NO3-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
CR-DS	E235.NO2-L	06-Oct-2024	08-Oct-2024	3 days	2 days	✓	08-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
CR-FDP	E235.NO2-L	06-Oct-2024	08-Oct-2024	3 days	2 days	✓	08-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
CR-REF	E235.NO2-L	06-Oct-2024	08-Oct-2024	3 days	2 days	✓	08-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-11	E235.NO2-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-17	E235.NO2-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-18	E235.NO2-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-BLANK02	E235.NO2-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-DUP02	E235.NO2-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL02	E235.NO2-L	05-Oct-2024	08-Oct-2024	3 days	3 days	✓	08-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
CR-DS	E235.SO4	06-Oct-2024	08-Oct-2024	28 days	2 days	✓	08-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
CR-FDP	E235.SO4	06-Oct-2024	08-Oct-2024	28 days	2 days	✓	08-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
CR-REF	E235.SO4	06-Oct-2024	08-Oct-2024	28 days	2 days	✓	08-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-11	E235.SO4	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-17	E235.SO4	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-18	E235.SO4	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-BLANK02	E235.SO4	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-DUP02	E235.SO4	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-GL02	E235.SO4	05-Oct-2024	08-Oct-2024	28 days	3 days	✓	08-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-DS	E372-U	06-Oct-2024	11-Oct-2024	28 days	5 days	✓	15-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-FDP	E372-U	06-Oct-2024	11-Oct-2024	28 days	5 days	✓	15-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) CR-REF	E372-U	06-Oct-2024	11-Oct-2024	28 days	5 days	✓	15-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-11	E372-U	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-17	E372-U	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-18	E372-U	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-BLANK02	E372-U	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	10 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP02	E372-U	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL02	E372-U	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	10 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-DS	E339-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-FDP	E339-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) CR-REF	E339-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-11	E339-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-17	E339-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-18	E339-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-BLANK02	E339-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E339-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E339-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E333-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E333-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E333-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E333-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E333-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-18	E333-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK02	E333-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E333-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E333-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-DS	E336-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-FDP	E336-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
CR-REF	E336-L	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-11	E336-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-17	E336-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-18	E336-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK02	E336-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP02	E336-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL02	E336-L	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.Cr-L	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.Cr-L	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.Cr-L	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-11	E421.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-17	E421.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-18	E421.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-BLANK02	E421.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-DUP02	E421.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-GL02	E421.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-DS	E509	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-FDP	E509	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) CR-REF	E509	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-BLANK02	E509	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP02	E509	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL02	E509	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-11	E509	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-17	E509	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-18	E509	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-DS	E421	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-FDP	E421	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
CR-REF	E421	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-11	E421	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-17	E421	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-18	E421	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-BLANK02	E421	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-DUP02	E421	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-GL02	E421	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-DS	E421.P-L	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-FDP	E421.P-L	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
CR-REF	E421.P-L	06-Oct-2024	11-Oct-2024	180 days	5 days	✓	13-Oct-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-11	E421.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-17	E421.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-18	E421.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-BLANK02	E421.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-DUP02	E421.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL02	E421.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	13-Oct-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
CR-DS	EF001	06-Oct-2024	----	----	----		16-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
CR-FDP	EF001	06-Oct-2024	----	----	----		16-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
CR-REF	EF001	06-Oct-2024	----	----	----		16-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-11	EF001	05-Oct-2024	----	----	----		16-Oct-2024	----	11 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-17	EF001	05-Oct-2024	----	----	----		16-Oct-2024	----	11 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-18	EF001	05-Oct-2024	----	----	----		16-Oct-2024	----	11 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-DUP02	EF001	05-Oct-2024	----	----	----		16-Oct-2024	----	11 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid) SW-GL02	EF001	05-Oct-2024	----	----	----		16-Oct-2024	----	11 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-DS	E358-L	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-FDP	E358-L	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) CR-REF	E358-L	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-11	E358-L	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-17	E358-L	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-18	E358-L	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-BLANK02	E358-L	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP02	E358-L	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL02	E358-L	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-DS	E283	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-FDP	E283	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE CR-REF	E283	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-11	E283	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-17	E283	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-18	E283	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-BLANK02	E283	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP02	E283	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE										
SW-GL02	E283	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-BLANK02	E290	05-Oct-2024	15-Oct-2024	14 days	10 days	✓	15-Oct-2024	14 days	10 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
CR-DS	E290	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
CR-FDP	E290	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
CR-REF	E290	06-Oct-2024	09-Oct-2024	14 days	3 days	✓	09-Oct-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-11	E290	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-17	E290	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-18	E290	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE										
SW-DUP02	E290	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL02	E290	05-Oct-2024	09-Oct-2024	14 days	4 days	✓	09-Oct-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-BLANK02	E100	05-Oct-2024	15-Oct-2024	28 days	10 days	✓	15-Oct-2024	28 days	10 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-DS	E100	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-FDP	E100	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE CR-REF	E100	06-Oct-2024	09-Oct-2024	28 days	3 days	✓	09-Oct-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-11	E100	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-17	E100	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-18	E100	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-DUP02	E100	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE SW-GL02	E100	05-Oct-2024	09-Oct-2024	28 days	4 days	✓	09-Oct-2024	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE SW-BLANK02	E108	05-Oct-2024	15-Oct-2024	0.25 hrs	237 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	237 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-DS	E108	06-Oct-2024	09-Oct-2024	0.25 hrs	75 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	75 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-FDP	E108	06-Oct-2024	09-Oct-2024	0.25 hrs	75 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	75 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE CR-REF	E108	06-Oct-2024	09-Oct-2024	0.25 hrs	76 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	76 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-DUP02	E108	05-Oct-2024	09-Oct-2024	0.25 hrs	94 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	94 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL02	E108	05-Oct-2024	09-Oct-2024	0.25 hrs	94 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	94 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-18	E108	05-Oct-2024	09-Oct-2024	0.25 hrs	95 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	95 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-11	E108	05-Oct-2024	09-Oct-2024	0.25 hrs	96 hrs	× EHTR-FM	09-Oct-2024	0.25 hrs	96 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: ✗ = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE SW-17	E108	05-Oct-2024	09-Oct-2024	0.25 hrs	97 hrs	✗ EHTR-FM	09-Oct-2024	0.25 hrs	97 hrs	✗ EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-DS	E162-L	06-Oct-2024	----	----	----		10-Oct-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-FDP	E162-L	06-Oct-2024	----	----	----		10-Oct-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE CR-REF	E162-L	06-Oct-2024	----	----	----		10-Oct-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-11	E162-L	05-Oct-2024	----	----	----		10-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-17	E162-L	05-Oct-2024	----	----	----		10-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-18	E162-L	05-Oct-2024	----	----	----		10-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-BLANK02	E162-L	05-Oct-2024	----	----	----		10-Oct-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-DUP02	E162-L	05-Oct-2024	----	----	----		10-Oct-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL02	E162-L	05-Oct-2024	----	----	----		10-Oct-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-DS	E160-L	06-Oct-2024	----	----	----		09-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-FDP	E160-L	06-Oct-2024	----	----	----		09-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE CR-REF	E160-L	06-Oct-2024	----	----	----		09-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-11	E160-L	05-Oct-2024	----	----	----		09-Oct-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-17	E160-L	05-Oct-2024	----	----	----		09-Oct-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-18	E160-L	05-Oct-2024	----	----	----		09-Oct-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-BLANK02	E160-L	05-Oct-2024	----	----	----		09-Oct-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-DUP02	E160-L	05-Oct-2024	----	----	----		09-Oct-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-GL02	E160-L	05-Oct-2024	----	----	----		09-Oct-2024	7 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-DS	E420.Cr-L	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-FDP	E420.Cr-L	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) CR-REF	E420.Cr-L	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP02	E420.Cr-L	05-Oct-2024	09-Oct-2024	180 days	4 days	✓	09-Oct-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL02	E420.Cr-L	05-Oct-2024	09-Oct-2024	180 days	4 days	✓	09-Oct-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-11	E420.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-17	E420.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-18	E420.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-BLANK02	E420.Cr-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-DS	E508	06-Oct-2024	11-Oct-2024	28 days	5 days	✓	11-Oct-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-FDP	E508	06-Oct-2024	11-Oct-2024	28 days	5 days	✓	11-Oct-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) CR-REF	E508	06-Oct-2024	11-Oct-2024	28 days	5 days	✓	11-Oct-2024	28 days	5 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-11	E508	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-17	E508	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-18	E508	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-BLANK02	E508	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP02	E508	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL02	E508	05-Oct-2024	11-Oct-2024	28 days	6 days	✓	11-Oct-2024	28 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-DS	E420	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-FDP	E420	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) CR-REF	E420	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP02	E420	05-Oct-2024	09-Oct-2024	180 days	4 days	✓	09-Oct-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL02	E420	05-Oct-2024	09-Oct-2024	180 days	4 days	✓	09-Oct-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-11	E420	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-17	E420	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-18	E420	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-BLANK02	E420	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-DS	E420.P-L	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-FDP	E420.P-L	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) CR-REF	E420.P-L	06-Oct-2024	09-Oct-2024	180 days	3 days	✓	09-Oct-2024	180 days	3 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP02	E420.P-L	05-Oct-2024	09-Oct-2024	180 days	4 days	✓	09-Oct-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL02	E420.P-L	05-Oct-2024	09-Oct-2024	180 days	4 days	✓	09-Oct-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-11	E420.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-17	E420.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-18	E420.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-BLANK02	E420.P-L	05-Oct-2024	11-Oct-2024	180 days	6 days	✓	11-Oct-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1699686	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1704718	2	29	6.9	5.0	✓
Ammonia by Fluorescence	E298	1698999	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1698564	1	13	7.6	5.0	✓
Conductivity in Water	E100	1704717	2	27	7.4	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1705452	0	9	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1698492	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1705451	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1698751	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1705450	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1699241	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1698565	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1698566	1	13	7.6	5.0	✓
pH by Meter	E108	1704716	2	32	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1698568	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1699880	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1698748	0	9	0.0	5.0	×
Total Cyanide (Low Level)	E333-L	1699242	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1704122	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1698747	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1705463	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1698749	0	16	0.0	5.0	×
TSS by Gravimetry (Low Level)	E160-L	1697466	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1699240	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1699686	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1704718	2	29	6.9	5.0	✓
Ammonia by Fluorescence	E298	1698999	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1698564	1	13	7.6	5.0	✓
Conductivity in Water	E100	1704717	2	27	7.4	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1705452	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1698492	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1705451	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1698751	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1705450	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1699241	1	13	7.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1698565	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1698566	1	13	7.6	5.0	✓
pH by Meter	E108	1704716	2	32	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1698568	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1699880	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1698748	2	9	22.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1699242	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1704122	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1698747	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1705463	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1698749	2	16	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1697466	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1699240	1	13	7.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1699686	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1704718	2	29	6.9	5.0	✓
Ammonia by Fluorescence	E298	1698999	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1698564	1	13	7.6	5.0	✓
Conductivity in Water	E100	1704717	2	27	7.4	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1705452	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1698492	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1705451	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1698751	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1705450	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1699241	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1698565	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1698566	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1698568	1	14	7.1	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1699880	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1698748	2	9	22.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1699242	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1704122	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1698747	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1705463	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1698749	2	16	12.5	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1697466	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1699240	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1698999	2	40	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1698564	1	13	7.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1705452	0	9	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1698492	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1705451	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1698751	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1705450	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1699241	1	13	7.6	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1698565	1	13	7.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1698566	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1698568	1	14	7.1	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1698748	0	9	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1699242	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1704122	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1698747	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1705463	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1698749	0	16	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1699240	1	13	7.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2423572**	Page	: 1 of 21
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 08-Oct-2024 09:58
PO	: PPR-022-3	Date Analysis Commenced	: 08-Oct-2024
C-O-C number	: ----	Issue Date	: 18-Oct-2024 14:14
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 9		
No. of samples analysed	: 9		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Administration, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1697466)											
WP2423572-001	CR-DS	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	6.1	6.2	0.1	Diff <2x LOR	----
Physical Tests (QC Lot: 1699686)											
WP2423500-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	54.1	55.4	2.34%	20%	----
Physical Tests (QC Lot: 1699880)											
WP2423533-001	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	308	309	0.324%	20%	----
Physical Tests (QC Lot: 1704716)											
WP2423662-005	Anonymous	pH	----	E108	0.10	pH units	7.61	7.63	0.262%	4%	----
Physical Tests (QC Lot: 1704717)											
WP2423662-005	Anonymous	Conductivity	----	E100	1.0	µS/cm	134	135	0.593%	10%	----
Physical Tests (QC Lot: 1704718)											
WP2423662-005	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	41.7	41.8	0.240%	20%	----
Physical Tests (QC Lot: 1704795)											
WP2423574-002	Anonymous	Conductivity	----	E100	2.0	µS/cm	450	450	0.00%	10%	----
Physical Tests (QC Lot: 1704796)											
WP2423574-002	Anonymous	pH	----	E108	0.10	pH units	8.48	8.48	0.00%	4%	----
Physical Tests (QC Lot: 1704797)											
WP2423574-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	240	241	0.458%	20%	----
Anions and Nutrients (QC Lot: 1698564)											
WP2423535-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.66	1.63	1.81%	20%	----
Anions and Nutrients (QC Lot: 1698565)											
WP2423535-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0553	0.0538	2.73%	20%	----
Anions and Nutrients (QC Lot: 1698566)											
WP2423535-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0010	0.0012	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1698568)											
WP2423535-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	2.57	2.53	0.04	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1698999)											
WP2423586-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0090	0.0082	0.0009	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1701139)											
WP2423504-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0246	0.0158	0.0089	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1705463)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1705463) - continued											
WP2423562-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0100	mg/L	1.84	1.83	0.676%	20%	----
Cyanides (QC Lot: 1699240)											
WP2423496-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 1699241)											
WP2423496-001	Anonymous	Cyanide, free	----	E339-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Cyanides (QC Lot: 1699242)											
WP2423496-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1698751)											
WP2422561-020	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	14.7	15.0	1.95%	20%	----
Total Metals (QC Lot: 1698747)											
WP2423243-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00350	0.00339	2.98%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	1800 µg/L	1.92	6.19%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.157	0.149	5.38%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000055	<0.0000050	0.0000005	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	60.6	62.8	3.52%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	1.84	1.87	1.95%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0194	0.0208	7.18%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	33.7	34.4	1.94%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00294	0.00293	0.557%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00192	0.00195	1.43%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00056	0.00056	0.000002	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	4.40	4.30	2.06%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00304	0.00317	4.35%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	7.87	8.02	1.92%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1698747) - continued											
WP2423243-001	Anonymous	Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	21.5	20.6	4.23%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.490	0.523	6.60%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1704122)											
WP2423505-004	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1704267)											
WP2423568-001	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00117	0.00113	3.04%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0165	0.0163	0.830%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.012	0.012	0.0002	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	34.1	33.7	1.18%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000012	0.000014	0.000002	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00014	0.00014	0.000002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00066	0.00067	0.000009	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.225	0.235	4.69%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000104	0.000105	0.0000009	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0046	0.0045	0.00008	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	11.5	11.6	0.470%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0283	0.0282	0.491%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000202	0.000185	0.000017	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1704267) - continued											
WP2423568-001	Anonymous	Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00069	0.00076	0.00006	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.26	1.27	0.729%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00229	0.00230	0.524%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000114	0.000109	0.000005	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	6.33	6.33	0.0535%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	3.87	3.86	0.251%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0585	0.0585	0.0589%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	2.02	1.95	0.08	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000294	0.000296	0.692%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00070	0.00070	0.0000010	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.00020	<0.00020	0.000002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1698492)											
WP2423347-008	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1704144)											
WP2419809-009	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1705450)											
WP2423572-001	CR-DS	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1705451)											
WP2423572-001	CR-DS	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0317	0.0324	1.98%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00027	0.00028	0.000006	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00843	0.00842	0.166%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00772	0.00772	0.0127%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	11.0	11.1	0.636%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1705451) - continued											
WP2423572-001	CR-DS	Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00116	0.00116	0.000007	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.100	0.104	3.41%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0012	0.0014	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	2.89	2.94	1.98%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00382	0.00391	2.38%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000197	0.000218	0.000021	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00116	0.00120	0.00004	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.08	1.08	0.0382%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00164	0.00174	0.00010	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000100	0.000087	0.000013	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.14	2.14	0.192%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.64	2.61	0.990%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0300	0.0306	1.91%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	1.94	1.96	0.02	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00088	0.00096	0.00008	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000089	0.000094	0.000005	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1697466)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1699686)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1699880)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1704717)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1704718)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1704795)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1704797)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1698564)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1698565)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1698566)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1698568)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1698999)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1701139)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1705463)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1699240)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1699241)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1699242)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Cyanides (QCLot: 1699242) - continued						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1698751)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1698747)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1698747) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1698748)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1698749)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1704122)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1704267)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1704267) - continued						
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1704268)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1704269)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1698492)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1704144)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1705450)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1705451)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1705451) - continued						
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1705452)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1697466)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	98.1	85.0	115	----
Physical Tests (QCLot: 1699686)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	109	85.0	115	----
Physical Tests (QCLot: 1699880)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	90.8	85.0	115	----
Physical Tests (QCLot: 1704716)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1704717)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 1704718)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	100	85.0	115	----
Physical Tests (QCLot: 1704795)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1704796)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1704797)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1698564)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	98.4	90.0	110	----
Anions and Nutrients (QCLot: 1698565)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1698566)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1698568)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1698999)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1701139)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.5	85.0	115	----
Anions and Nutrients (QCLot: 1705463)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1699240)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	102	80.0	120	----
Cyanides (QCLot: 1699241)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	97.3	80.0	120	----
Cyanides (QCLot: 1699242)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	83.6	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1698751)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.7	80.0	120	----
Total Metals (QCLot: 1698747)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	96.7	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	96.7	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	99.9	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	97.6	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.8	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.2	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	98.3	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	96.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	95.9	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	90.3	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	95.8	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.5	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.2	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	94.9	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	93.0	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	86.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	96.3	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	91.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	91.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1698747) - continued									
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.6	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	93.6	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	93.6	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.2	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.0	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	95.8	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	90.9	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.5	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	100.0	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	93.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	94.0	80.0	120	----
Total Metals (QCLot: 1698748)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	96.3	80.0	120	----
Total Metals (QCLot: 1698749)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	97.4	80.0	120	----
Total Metals (QCLot: 1704122)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	96.5	80.0	120	----
Total Metals (QCLot: 1704267)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	99.0	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	95.4	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	95.2	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	95.6	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	98.0	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.8	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	97.9	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	96.3	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	99.7	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.3	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	94.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	95.9	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	93.0	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	96.3	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	92.8	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	105	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1704267) - continued									
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	94.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	93.2	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	94.5	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	96.4	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	94.7	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	96.2	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.0	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.4	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	97.5	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.5	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.9	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	94.3	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	94.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.4	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	96.4	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	93.9	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	90.2	80.0	120	----
Total Metals (QCLot: 1704268)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	95.2	80.0	120	----
Total Metals (QCLot: 1704269)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	98.7	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	96.2	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	97.2	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	117	80.0	120	----
Dissolved Metals (QCLot: 1705451)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.7	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.3	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.4	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	94.8	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1705451) - continued									
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	95.7	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	96.9	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	97.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.4	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	93.2	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	93.1	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	94.7	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	98.8	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.9	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	101	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	99.0	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	92.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	95.3	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	100	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.0	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	102	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	96.4	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	89.9	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	97.7	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	97.8	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	97.5	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	96.3	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	98.2	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	96.7	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.1	80.0	120	----
Dissolved Metals (QCLot: 1705452)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1698564)										
WP2423535-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1698565)										
WP2423535-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.62 mg/L	2.5 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1698566)										
WP2423535-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.541 mg/L	0.5 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1698568)										
WP2423535-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1698999)										
WP2423586-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0987 mg/L	0.1 mg/L	98.7	75.0	125	----
Anions and Nutrients (QCLot: 1701139)										
WP2423504-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0864 mg/L	0.1 mg/L	86.4	75.0	125	----
Anions and Nutrients (QCLot: 1705463)										
WP2423572-001	CR-DS	Phosphorus, total	7723-14-0	E372-U	0.235 mg/L	0.25 mg/L	94.2	70.0	130	----
Cyanides (QCLot: 1699240)										
WP2423496-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	1.19 mg/L	1.25 mg/L	95.3	75.0	125	----
Cyanides (QCLot: 1699241)										
WP2423496-001	Anonymous	Cyanide, free	----	E339-L	1.17 mg/L	1.25 mg/L	93.3	75.0	125	----
Cyanides (QCLot: 1699242)										
WP2423496-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	2.06 mg/L	2.5 mg/L	82.3	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1698751)										
WP2422561-021	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1698747)										
WP2423243-001	Anonymous	Aluminum, total	7429-90-5	E420	0.222 mg/L	0.2 mg/L	111	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0495 mg/L	0.04 mg/L	124	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00419 mg/L	0.004 mg/L	105	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0115 mg/L	0.01 mg/L	115	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0205 mg/L	0.02 mg/L	102	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1698747) - continued										
WP2423243-001	Anonymous	Copper, total	7440-50-8	E420	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Iron, total	7439-89-6	E420	1.97 mg/L	2 mg/L	98.6	70.0	130	----
		Lead, total	7439-92-1	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Lithium, total	7439-93-2	E420	0.130 mg/L	0.1 mg/L	130	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0391 mg/L	0.04 mg/L	97.7	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0404 mg/L	0.04 mg/L	101	70.0	130	----
		Silicon, total	7440-21-3	E420	9.26 mg/L	10 mg/L	92.6	70.0	130	----
		Silver, total	7440-22-4	E420	0.00414 mg/L	0.004 mg/L	104	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	22.2 mg/L	20 mg/L	111	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0402 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00416 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0229 mg/L	0.02 mg/L	114	70.0	130	----
		Tin, total	7440-31-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00450 mg/L	0.004 mg/L	112	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, total	7440-66-6	E420	0.390 mg/L	0.4 mg/L	97.5	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
Total Metals (QCLot: 1704122)										
WP2423505-005	Anonymous	Mercury, total	7439-97-6	E508	0.0000836 mg/L	0 mg/L	83.6	70.0	130	----
Total Metals (QCLot: 1704267)										
WP2423568-001	Anonymous	Antimony, total	7440-36-0	E420	0.0196 mg/L	0.02 mg/L	98.2	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Barium, total	7440-39-3	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0434 mg/L	0.04 mg/L	108	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Boron, total	7440-42-8	E420	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0105 mg/L	0.01 mg/L	105	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, total	7440-50-8	E420	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Iron, total	7439-89-6	E420	2.11 mg/L	2 mg/L	105	70.0	130	----
		Lead, total	7439-92-1	E420	0.0203 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, total	7439-93-2	E420	0.104 mg/L	0.1 mg/L	104	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1704267) - continued										
WP2423568-001	Anonymous	Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0419 mg/L	0.04 mg/L	105	70.0	130	----
		Potassium, total	7440-09-7	E420	4.37 mg/L	4 mg/L	109	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
		Silicon, total	7440-21-3	E420	9.44 mg/L	10 mg/L	94.4	70.0	130	----
		Silver, total	7440-22-4	E420	0.00399 mg/L	0.004 mg/L	99.8	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00405 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Tin, total	7440-31-5	E420	0.0196 mg/L	0.02 mg/L	97.8	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Zinc, total	7440-66-6	E420	0.422 mg/L	0.4 mg/L	106	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 1698492)										
WP2423410-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000905 mg/L	0 mg/L	90.5	70.0	130	----
Dissolved Metals (QCLot: 1704144)										
WP2419809-010	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000806 mg/L	0 mg/L	80.6	70.0	130	----
Dissolved Metals (QCLot: 1705450)										
WP2423572-001	CR-DS	Phosphorus, dissolved	7723-14-0	E421.P-L	11.3 mg/L	10 mg/L	113	70.0	130	----
Dissolved Metals (QCLot: 1705451)										
WP2423572-001	CR-DS	Aluminum, dissolved	7429-90-5	E421	0.220 mg/L	0.2 mg/L	110	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0422 mg/L	0.04 mg/L	105	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0101 mg/L	0.01 mg/L	101	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.097 mg/L	0.1 mg/L	97.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00436 mg/L	0.004 mg/L	109	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.11 mg/L	2 mg/L	106	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1705451) - continued										
WP2423572-001	CR-DS	Lithium, dissolved	7439-93-2	E421	0.104 mg/L	0.1 mg/L	104	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0420 mg/L	0.04 mg/L	105	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.41 mg/L	4 mg/L	110	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0223 mg/L	0.02 mg/L	112	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0437 mg/L	0.04 mg/L	109	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.60 mg/L	10 mg/L	96.0	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00422 mg/L	0.004 mg/L	106	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.3 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0430 mg/L	0.04 mg/L	107	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00426 mg/L	0.004 mg/L	106	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00423 mg/L	0.004 mg/L	106	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.434 mg/L	0.4 mg/L	109	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0443 mg/L	0.04 mg/L	111	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2423572

Telephone +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (TAT)
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges a
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcha
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surch
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surch
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surch
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rusl
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush reque holidays and for non-ro
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	**Date and Time Required fo**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	**Analysis Requ**
Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients	
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Job #:	PPR-022-3	Email 1 invoice@kinross.com	
ALS Lab Work Order # (ALS use only):		**ALS Contact:** Judy Dalmaijer	**Sampler:** EM/JM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	CR-DS	6-Oct-24	9:50	Water	10	X			6.62	8.56	87
	CR-FDP	6-Oct-24	9:20	Water	10	X			6.56	8.61	86
	CR-REF	6-Oct-24	8:20	Water	10	X			7.22	7.4	87
	SW-GL02	5-Oct-24	14:50	Water	9	X			7.31	8.6	91.3
	SW-DUP02	5-Oct-24	14:50	Water	9	X			7.31	8.6	91.3
	SW-BLANK02	5-Oct-24	14:50	Water	9	X			N/A	N/A	N/A
	SW-18	5-Oct-24	14:00	Water	9		X		5.36	9.6	25
	SW-11	5-Oct-24	12:35	Water	9	X			6.84	7.5	109.4
	SW-17	5-Oct-24	11:25	Water	9	X			6.52	7	19.8

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Oct 7 2024	Time:	Received by:	Date: Oct 8	Time: 9:58	Received by: AK	Time: 14,6°

EMacKenzie

★ cooler 1/2 ★

Sample Intake

Client: Kinross – Great Bear				**COC receipt info complete**		☐
Express TAT?	(no)	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: (2 days)	3 days	4 days
Matrix	(Water)	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:			
Green/white	12 x 500	Orange/black	
Purple/white	18 x 125	Dark blue/white	
Red/white	18 x 100	Black/white	
Dark green/white	9 x 60	Brown/white	
Grey/white		Pink/white	
Yellow/black	18 x 40	Beige/white	
Light blue/white		Other (specify)	9 x 150 (clear Plastic)

Comments:

14,6°; ice pack

Sample Login

Receipt Window	✓/X	N/A	**Bottles**	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	**Yes**	**No**
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2423685**		
Client	:	**Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	:	Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	----	Telephone	: +1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	: 09-Oct-2024 10:59
PO	:	PPR-022-3	Date Analysis Commenced	: 09-Oct-2024
C-O-C number	:	----	Issue Date	: 18-Oct-2024 14:13
Sampler	:	----		
Site	:	----		
Quote number	:	2024 Standing offer		
No. of samples received	:	8		
No. of samples analysed	:	8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Metals, Winnipeg, Manitoba
Oleksandr Busel		Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Administration, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-01	GRL-01-B	GRL-02	GRL-02-B	GRL-03
					Client sampling date / time	07-Oct-2024 11:30	07-Oct-2024 11:50	07-Oct-2024 12:40	07-Oct-2024 13:00	07-Oct-2024 09:50
						WP2423685-001	WP2423685-002	WP2423685-003	WP2423685-004	WP2423685-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.75	6.69	6.89	6.78	7.31
Temperature, field	----	EF001/WP	0.10	°C		8.89	8.87	7.52	7.57	10.3
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		27.9	27.8	29.2	29.0	27.2
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		27.9	27.8	29.2	29.0	27.2
Conductivity	----	E100/WP	1.0	µS/cm		86.8	86.0	96.4	97.0	85.9
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		36.4	36.5	36.7	36.8	35.5
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		37.2	37.1	38.0	38.2	35.7
pH	----	E108/WP	0.10	pH units		7.53	7.53	7.52	7.53	7.53
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		66.8	68.1	73.5	64.5	71.5
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.5	3.3	2.3	2.9	2.1
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0062	<0.0050	0.0062	0.0066	0.0142
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.93	2.93	5.96	6.01	2.98
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	0.0053	<0.0050	0.0289
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		<0.0051	<0.0051	0.0053	<0.0051	0.0308

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-01	GRL-01-B	GRL-02	GRL-02-B	GRL-03
					Client sampling date / time	07-Oct-2024 11:30	07-Oct-2024 11:50	07-Oct-2024 12:40	07-Oct-2024 13:00	07-Oct-2024 09:50
						WP2423685-001	WP2423685-002	WP2423685-003	WP2423685-004	WP2423685-005
						Result	Result	Result	Result	Result
Anions and Nutrients										
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	0.0011	<0.0010	<0.0010	0.0019
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0270	0.0288	0.0282	0.0275	0.0326
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		6.52	6.49	5.68	5.64	6.92
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		11.4	11.2	12.4	12.3	11.6
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.0701	0.0599	0.0502	0.0542	0.0481
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00030	0.00031	0.00029	0.00028	0.00028
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.0105	0.0104	0.00800	0.00801	0.0110
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00738	0.00706	0.00754	0.00772	0.00649
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000080	0.0000095	0.0000083	0.0000029	0.0000048
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.0000024	0.0000035	0.0000011	0.0000013	0.0000010
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0066	0.0068	0.0066	0.0064	0.0063
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000041	0.0000026	0.0000018	0.0000028	0.0000016
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		10.6	10.6	10.7	10.7	10.1
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.0000083	0.0000078	0.0000056	0.0000059	0.0000070
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00020	0.00022	0.00019	0.00017	0.00016

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-01	GRL-01-B	GRL-02	GRL-02-B	GRL-03
					Client sampling date / time	07-Oct-2024 11:30	07-Oct-2024 11:50	07-Oct-2024 12:40	07-Oct-2024 13:00	07-Oct-2024 09:50
						WP2423685-001	WP2423685-002	WP2423685-003	WP2423685-004	WP2423685-005
						Result	Result	Result	Result	Result
Total Metals										
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000087	0.000086	0.000075	0.000078	0.000074
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00138	0.00138	0.00108	0.00109	0.00128
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.103	0.091	0.111	0.119	0.078
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000059	0.000064	0.000047	0.000050	0.000048
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0018	0.0018	0.0018	0.0021	0.0017
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.62	2.59	2.74	2.78	2.54
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00629	0.00622	0.00882	0.00904	0.00689
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000188	0.000182	0.000192	0.000189	0.000186
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00131	0.00136	0.00102	0.00104	0.00123
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.035	<0.030	<0.030	0.032	<0.030
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.988	0.956	0.963	0.969	0.965
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00178	0.00186	0.00180	0.00174	0.00182
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000082	0.000057	0.000026	0.000141	0.000138
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.31	2.25	1.86	1.81	2.20
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		0.0000017	0.0000014	Not Detected	Not Detected	0.0000012
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.58	2.60	4.29	4.40	2.61
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0294	0.0317	0.0310	0.0292	0.0295
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.59	2.58	2.16	2.04	2.63
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		0.000036	0.000052	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000036	0.0000037	0.0000018	0.0000016	0.0000020

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-01	GRL-01-B	GRL-02	GRL-02-B	GRL-03
					Client sampling date / time	07-Oct-2024 11:30	07-Oct-2024 11:50	07-Oct-2024 12:40	07-Oct-2024 13:00	07-Oct-2024 09:50
						WP2423685-001	WP2423685-002	WP2423685-003	WP2423685-004	WP2423685-005
						Result	Result	Result	Result	Result
Total Metals										
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000016	0.000018	0.000014	0.000053	0.000014
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	0.000033	0.000015	0.000029	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00293	0.00224	0.00193	0.00198	0.00162
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000030	0.000029	0.000018	0.000015	0.000032
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000074	0.000073	0.000086	0.000085	0.000060
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00057	0.00054	0.00046	0.00048	0.00044
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.00062	0.00069	0.00031	0.00062	0.00059
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00011	0.000099	0.000078	0.000080	0.000086
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0055	0.0086	0.0060	0.0070	0.0040
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00031	0.00033	0.00028	0.00029	0.00029
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.0101	0.0100	0.00773	0.00782	0.0108
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00681	0.00688	0.00752	0.00739	0.00649
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000028	Not Detected	0.0000036	0.0000046	0.0000055
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0054	0.0056	0.0054	0.0057	0.0057
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000017	0.0000024	0.00000081	0.00000076	0.00000065
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.4	10.3	10.5	10.3	10.1
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		Not Detected	0.0000028	0.0000020	0.0000011	Not Detected
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000045	0.000044	0.000040	0.000046	0.000046

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-01	GRL-01-B	GRL-02	GRL-02-B	GRL-03
					Client sampling date / time	07-Oct-2024 11:30	07-Oct-2024 11:50	07-Oct-2024 12:40	07-Oct-2024 13:00	07-Oct-2024 09:50
						WP2423685-001	WP2423685-002	WP2423685-003	WP2423685-004	WP2423685-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00097	0.00105	0.00073	0.00076	0.00087
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.022	0.022	0.038	0.039	0.017
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000012	0.000013	0.000013	0.000013	0.0000059
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0014	0.0014	0.0016	0.0015	0.0015
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.54	2.61	2.55	2.68	2.49
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00069	0.00068	0.00240	0.00231	0.00044
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000195	0.000166	0.000153	0.000175	0.000141
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00108	0.00107	0.00089	0.00086	0.00103
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.970	0.971	0.976	0.972	0.992
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00162	0.00170	0.00155	0.00175	0.00182
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000078	0.000103	0.000078	0.000063	0.000092
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.07	2.09	1.70	1.72	2.12
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.45	2.49	3.89	3.99	2.52
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0292	0.0299	0.0297	0.0312	0.0289
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.24	2.27	2.10	1.94	2.63
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000018	0.0000013	0.0000015	0.0000011	0.0000012
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-01	GRL-01-B	GRL-02	GRL-02-B	GRL-03
					Client sampling date / time	07-Oct-2024 11:30	07-Oct-2024 11:50	07-Oct-2024 12:40	07-Oct-2024 13:00	07-Oct-2024 09:50
						WP2423685-001	WP2423685-002	WP2423685-003	WP2423685-004	WP2423685-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	0.000010	0.000015	0.000011	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00012	0.00017	0.00016	0.00017	0.000063
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000026	0.000022	0.000017	0.000020	0.000028
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000062	0.000064	0.000075	0.000074	0.000047
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00040	0.00040	0.00033	0.00033	0.00032
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00060	0.00032	0.00028	0.00024	0.00031
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.000079	0.000078	0.000072	0.000069	0.000070
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-03-B	SW-DUP03	SW-BLANK03	----	----
					Client sampling date / time	07-Oct-2024 10:05	07-Oct-2024 11:30	07-Oct-2024 11:30	----	----
						WP2423685-006	WP2423685-007	WP2423685-008	----	----
						Result	Result	Result	----	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		5.98	7.75	----	----	----
Temperature, field	----	EF001/WP	0.10	°C		10.6	8.89	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		28.5	28.3	1.1	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-03-B	SW-DUP03	SW-BLANK03	----	----
					Client sampling date / time	07-Oct-2024 10:05	07-Oct-2024 11:30	07-Oct-2024 11:30	----	----
						WP2423685-006	WP2423685-007	WP2423685-008	----	----
						Result	Result	Result	----	----
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		28.5	28.3	1.1	----	----
Conductivity	----	E100/WP	1.0	µS/cm		87.8	85.0	1.6	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		35.1	36.1	<0.50	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		37.0	36.7	<0.50	----	----
pH	----	E108/WP	0.10	pH units		7.56	7.56	5.90	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		68.1	64.8	<3.0	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		1.5	3.1	<1.0	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0062	0.0116	<0.0050	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		3.00	2.94	0.019	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0293	<0.0050	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0304	<0.0051	<0.0051	----	----
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0011	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0320	0.0295	0.00081	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		7.00	6.52	<0.30	----	----
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	GRL-03-B	SW-DUP03	SW-BLANK03	----	----
Client sample ID					GRL-03-B	SW-DUP03	SW-BLANK03	----	----
Client sampling date / time					07-Oct-2024 10:05	07-Oct-2024 11:30	07-Oct-2024 11:30	----	----
					WP2423685-006	WP2423685-007	WP2423685-008	----	----
					Result	Result	Result	----	----
Cyanides									
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	11.3	12.5	<0.50	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	0.0566	0.0644	0.0012	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L	0.00028	0.00031	0.000037	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L	0.0112	0.0104	0.000065	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L	0.00664	0.00697	Not Detected	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L	0.0000049	0.000023	0.00000037	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L	0.0000012	0.000013	0.0000017	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L	0.0065	0.0062	0.0030	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L	0.0000014	0.0000061	Not Detected	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L	10.4	10.3	Not Detected	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L	0.0000076	0.000017	0.0000011	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L	0.00023	0.00017	<0.00010	----	----
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L	0.000082	0.000089	Not Detected	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L	0.00126	0.00146	Not Detected	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L	0.091	0.096	Not Detected	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L	0.000054	0.000079	Not Detected	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L	0.0019	0.0019	Not Detected	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-03-B	SW-DUP03	SW-BLANK03	----	----
					Client sampling date / time	07-Oct-2024 10:05	07-Oct-2024 11:30	07-Oct-2024 11:30	----	----
						WP2423685-006	WP2423685-007	WP2423685-008	----	----
						Result	Result	Result	----	----
Total Metals										
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.67	2.67	0.0010	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00832	0.00642	0.000033	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000180	0.000180	Not Detected	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00124	0.00131	Not Detected	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.035	0.031	<0.030	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.976	0.988	Not Detected	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00187	0.00183	Not Detected	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000107	0.000224	0.000031	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.26	2.30	0.036	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	0.0000046	Not Detected	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.67	2.64	0.0051	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0297	0.0294	Not Detected	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		2.55	2.60	Not Detected	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	0.000048	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000023	0.000012	Not Detected	----	----
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000014	0.000025	Not Detected	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	0.000035	0.000020	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00230	0.00269	Not Detected	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000028	0.000030	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000056	0.000079	Not Detected	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	GRL-03-B	SW-DUP03	SW-BLANK03	----	----
Client sample ID					GRL-03-B	SW-DUP03	SW-BLANK03	----	----
Client sampling date / time					07-Oct-2024 10:05	07-Oct-2024 11:30	07-Oct-2024 11:30	----	----
					WP2423685-006	WP2423685-007	WP2423685-008	----	----
					Result	Result	Result	----	----
Total Metals									
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L	0.00045	0.00054	Not Detected	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L	0.00059	0.00054	Not Detected	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L	0.000096	0.00011	Not Detected	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L	0.0082	0.0065	0.00017	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L	0.00028	0.00031	Not Detected	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L	0.0106	0.00994	0.000018	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L	0.00661	0.00721	Not Detected	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L	0.0000053	0.0000041	Not Detected	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L	Not Detected	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L	0.0061	0.0060	0.0019	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L	0.00000081	0.0000013	Not Detected	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L	10.1	10.4	Not Detected	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L	Not Detected	0.0000023	Not Detected	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L	0.000050	0.000044	Not Detected	----	----
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L	0.00104	0.00119	Not Detected	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L	0.021	0.023	Not Detected	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L	0.0000098	0.000014	Not Detected	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L	0.0014	0.0016	Not Detected	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L	2.41	2.47	0.0036	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-03-B	SW-DUP03	SW-BLANK03	----	----
					Client sampling date / time	07-Oct-2024 10:05	07-Oct-2024 11:30	07-Oct-2024 11:30	----	----
						WP2423685-006	WP2423685-007	WP2423685-008	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00058	0.00067	Not Detected	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000180	0.000204	Not Detected	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00109	0.00107	Not Detected	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.982	0.967	0.028	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00174	0.00175	Not Detected	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000085	0.000058	Not Detected	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.14	2.05	Not Detected	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		0.0000010	Not Detected	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.50	2.48	0.012	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0291	0.0295	Not Detected	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		2.37	2.22	Not Detected	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		0.000024	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000018	0.0000019	Not Detected	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	0.000023	Not Detected	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00014	0.00013	Not Detected	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000024	0.000027	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000048	0.000064	Not Detected	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00032	0.00037	0.000052	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	GRL-03-B	SW-DUP03	SW-BLANK03	----	----
					Client sampling date / time	07-Oct-2024 10:05	07-Oct-2024 11:30	07-Oct-2024 11:30	----	----
						WP2423685-006	WP2423685-007	WP2423685-008	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00097	0.00057	Not Detected	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.000085	0.000064	Not Detected	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Laboratory	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2423685**	Page	: 1 of 32
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Oct-2024 10:59
PO	: PPR-022-3	Issue Date	: 18-Oct-2024 14:16
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GRL-01	E298	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GRL-01-B	E298	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GRL-02	E298	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GRL-02-B	E298	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GRL-03	E298	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GRL-03-B	E298	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-BLANK03	E298	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid)										
SW-DUP03	E298	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
GRL-01	E235.Cl-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
GRL-01-B	E235.Cl-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
GRL-02	E235.Cl-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
GRL-02-B	E235.Cl-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
GRL-03	E235.Cl-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
GRL-03-B	E235.Cl-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-BLANK03	E235.Cl-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-DUP03	E235.Cl-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GRL-01	E235.NO3-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GRL-01-B	E235.NO3-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GRL-02	E235.NO3-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GRL-02-B	E235.NO3-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GRL-03	E235.NO3-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
GRL-03-B	E235.NO3-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-BLANK03	E235.NO3-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-DUP03	E235.NO3-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GRL-01	E235.NO2-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GRL-01-B	E235.NO2-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GRL-02	E235.NO2-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GRL-02-B	E235.NO2-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GRL-03	E235.NO2-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
GRL-03-B	E235.NO2-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-BLANK03	E235.NO2-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-DUP03	E235.NO2-L	07-Oct-2024	09-Oct-2024	3 days	2 days	✓	09-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GRL-01	E235.SO4	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
GRL-01-B	E235.SO4	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE GRL-02	E235.SO4	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GRL-02-B	E235.SO4	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GRL-03	E235.SO4	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GRL-03-B	E235.SO4	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-BLANK03	E235.SO4	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-DUP03	E235.SO4	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GRL-01	E372-U	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GRL-01-B	E372-U	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GRL-02	E372-U	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GRL-02-B	E372-U	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GRL-03	E372-U	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GRL-03-B	E372-U	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-BLANK03	E372-U	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP03	E372-U	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GRL-01	E339-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GRL-01-B	E339-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GRL-02	E339-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GRL-02-B	E339-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-03	E339-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-03-B	E339-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK03	E339-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP03	E339-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-01	E333-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-01-B	E333-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-02	E333-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-02-B	E333-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-03	E333-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-03-B	E333-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK03	E333-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP03	E333-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-01	E336-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-01-B	E336-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-02	E336-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-02-B	E336-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-03	E336-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GRL-03-B	E336-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-BLANK03	E336-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-DUP03	E336-L	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GRL-01	E421.Cr-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GRL-01-B	E421.Cr-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GRL-02	E421.Cr-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GRL-02-B	E421.Cr-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GRL-03	E421.Cr-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
GRL-03-B	E421.Cr-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-BLANK03	E421.Cr-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-DUP03	E421.Cr-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GRL-01	E509	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GRL-01-B	E509	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GRL-02	E509	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GRL-02-B	E509	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GRL-03	E509	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GRL-03-B	E509	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-BLANK03	E509	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP03	E509	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GRL-01	E421	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GRL-01-B	E421	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GRL-02	E421	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GRL-02-B	E421	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GRL-03	E421	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
GRL-03-B	E421	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-BLANK03	E421	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
SW-DUP03	E421	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GRL-01	E421.P-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GRL-01-B	E421.P-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GRL-02	E421.P-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GRL-02-B	E421.P-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GRL-03	E421.P-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
GRL-03-B	E421.P-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-BLANK03	E421.P-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-DUP03	E421.P-L	07-Oct-2024	16-Oct-2024	180 days	9 days	✓	16-Oct-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
GRL-01	EF001	07-Oct-2024	----	----	----		17-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
GRL-01-B	EF001	07-Oct-2024	----	----	----		17-Oct-2024	----	10 days	

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
GRL-02	EF001	07-Oct-2024	----	----	----		17-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
GRL-02-B	EF001	07-Oct-2024	----	----	----		17-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
GRL-03	EF001	07-Oct-2024	----	----	----		17-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
GRL-03-B	EF001	07-Oct-2024	----	----	----		17-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
SW-DUP03	EF001	07-Oct-2024	----	----	----		17-Oct-2024	----	10 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
GRL-01	E358-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
GRL-01-B	E358-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
GRL-02	E358-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
GRL-02-B	E358-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GRL-03	E358-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) GRL-03-B	E358-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-BLANK03	E358-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP03	E358-L	07-Oct-2024	09-Oct-2024	28 days	2 days	✓	09-Oct-2024	28 days	2 days	✓
Physical Tests : Acidity by Titration										
HDPE GRL-01	E283	07-Oct-2024	10-Oct-2024	14 days	3 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE GRL-01-B	E283	07-Oct-2024	10-Oct-2024	14 days	3 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE GRL-02	E283	07-Oct-2024	10-Oct-2024	14 days	3 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE GRL-02-B	E283	07-Oct-2024	10-Oct-2024	14 days	3 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE GRL-03	E283	07-Oct-2024	10-Oct-2024	14 days	3 days	✓	11-Oct-2024	14 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE GRL-03-B	E283	07-Oct-2024	10-Oct-2024	14 days	3 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-BLANK03	E283	07-Oct-2024	10-Oct-2024	14 days	3 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP03	E283	07-Oct-2024	10-Oct-2024	14 days	3 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GRL-01	E290	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GRL-01-B	E290	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GRL-02	E290	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GRL-02-B	E290	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-BLANK03	E290	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-DUP03	E290	07-Oct-2024	11-Oct-2024	14 days	4 days	✓	11-Oct-2024	14 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE GRL-03	E290	07-Oct-2024	11-Oct-2024	14 days	5 days	✓	11-Oct-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GRL-03-B	E290	07-Oct-2024	11-Oct-2024	14 days	5 days	✓	11-Oct-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE GRL-01	E100	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE GRL-01-B	E100	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE GRL-02	E100	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE GRL-02-B	E100	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-BLANK03	E100	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-DUP03	E100	07-Oct-2024	11-Oct-2024	28 days	4 days	✓	11-Oct-2024	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE GRL-03	E100	07-Oct-2024	11-Oct-2024	28 days	5 days	✓	11-Oct-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE GRL-03-B	E100	07-Oct-2024	11-Oct-2024	28 days	5 days	✓	11-Oct-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE GRL-02	E108	07-Oct-2024	11-Oct-2024	0.25 hrs	105 hrs	× EHTR-FM	11-Oct-2024	0.25 hrs	105 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GRL-02-B	E108	07-Oct-2024	11-Oct-2024	0.25 hrs	105 hrs	× EHTR-FM	11-Oct-2024	0.25 hrs	105 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GRL-01	E108	07-Oct-2024	11-Oct-2024	0.25 hrs	106 hrs	× EHTR-FM	11-Oct-2024	0.25 hrs	106 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GRL-01-B	E108	07-Oct-2024	11-Oct-2024	0.25 hrs	106 hrs	× EHTR-FM	11-Oct-2024	0.25 hrs	106 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-BLANK03	E108	07-Oct-2024	11-Oct-2024	0.25 hrs	106 hrs	× EHTR-FM	11-Oct-2024	0.25 hrs	106 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-DUP03	E108	07-Oct-2024	11-Oct-2024	0.25 hrs	106 hrs	× EHTR-FM	11-Oct-2024	0.25 hrs	106 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GRL-03	E108	07-Oct-2024	11-Oct-2024	0.25 hrs	108 hrs	× EHTR-FM	11-Oct-2024	0.25 hrs	108 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GRL-03-B	E108	07-Oct-2024	11-Oct-2024	0.25 hrs	108 hrs	× EHTR-FM	11-Oct-2024	0.25 hrs	108 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GRL-01	E162-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GRL-01-B	E162-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GRL-02	E162-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GRL-02-B	E162-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GRL-03	E162-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GRL-03-B	E162-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-BLANK03	E162-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-DUP03	E162-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE GRL-01	E160-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE GRL-01-B	E160-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE GRL-02	E160-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE GRL-02-B	E160-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE GRL-03	E160-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE GRL-03-B	E160-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-BLANK03	E160-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-DUP03	E160-L	07-Oct-2024	----	----	----		10-Oct-2024	7 days	3 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GRL-01	E420.Cr-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GRL-01-B	E420.Cr-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GRL-02	E420.Cr-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GRL-02-B	E420.Cr-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GRL-03	E420.Cr-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GRL-03-B	E420.Cr-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP03	E420.Cr-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-BLANK03	E420.Cr-L	07-Oct-2024	15-Oct-2024	180 days	8 days	✓	15-Oct-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GRL-01	E508	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GRL-01-B	E508	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GRL-02	E508	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GRL-02-B	E508	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GRL-03	E508	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GRL-03-B	E508	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-BLANK03	E508	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP03	E508	07-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GRL-01	E420	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GRL-01-B	E420	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GRL-02	E420	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GRL-02-B	E420	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GRL-03	E420	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GRL-03-B	E420	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP03	E420	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-BLANK03	E420	07-Oct-2024	15-Oct-2024	180 days	8 days	✓	15-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GRL-01	E420.P-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GRL-01-B	E420.P-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GRL-02	E420.P-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GRL-02-B	E420.P-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GRL-03	E420.P-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
GRL-03-B	E420.P-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-DUP03	E420.P-L	07-Oct-2024	11-Oct-2024	180 days	4 days	✓	11-Oct-2024	180 days	4 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-BLANK03	E420.P-L	07-Oct-2024	15-Oct-2024	180 days	8 days	✓	15-Oct-2024	180 days	8 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1702609	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1706414	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1704101	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1699870	1	14	7.1	5.0	✓
Conductivity in Water	E100	1706413	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1711117	0	13	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1704144	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1711116	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1699701	1	10	10.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1711115	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1703682	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1699867	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1699868	1	15	6.6	5.0	✓
pH by Meter	E108	1706412	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1699864	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1699882	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1704814	0	8	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1703683	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1708382	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1704811	1	38	2.6	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1710373	1	26	3.8	5.0	✗
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1704810	0	12	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1699851	2	27	7.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1703681	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1702609	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1706414	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1704101	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1699870	1	14	7.1	5.0	✓
Conductivity in Water	E100	1706413	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1711117	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1704144	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1711116	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1699701	1	10	10.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1711115	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1703682	1	12	8.3	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1699867	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1699868	1	15	6.6	5.0	✓
pH by Meter	E108	1706412	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1699864	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1699882	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1704814	2	8	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1703683	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1708382	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1704811	2	38	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1710373	2	26	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1704810	2	12	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1699851	2	27	7.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1703681	1	13	7.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1702609	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1706414	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1704101	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1699870	1	14	7.1	5.0	✓
Conductivity in Water	E100	1706413	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1711117	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1704144	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1711116	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1699701	1	10	10.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1711115	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1703682	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1699867	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1699868	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1699864	1	17	5.8	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1699882	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1704814	2	8	25.0	5.0	✓
Total Cyanide (Low Level)	E333-L	1703683	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1708382	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1704811	2	38	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1710373	2	26	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1704810	2	12	16.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1699851	2	27	7.4	5.0	✓
WAD Cyanide (Low Level)	E336-L	1703681	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1704101	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1699870	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1711117	0	13	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1704144	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1711116	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1699701	1	10	10.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1711115	1	19	5.2	5.0	✓
Free Cyanide (Low Level)	E339-L	1703682	1	12	8.3	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1699867	1	15	6.6	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1699868	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1699864	1	17	5.8	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1704814	0	8	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1703683	1	13	7.6	5.0	✓
Total Mercury in Water by CVAAS	E508	1708382	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1704811	1	38	2.6	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1710373	2	26	7.6	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1704810	0	12	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1703681	1	13	7.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2423685**	Page	: 1 of 19
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 09-Oct-2024 10:59
PO	: PPR-022-3	Date Analysis Commenced	: 09-Oct-2024
C-O-C number	: ----	Issue Date	: 18-Oct-2024 14:22
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Administration, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba
Oleksandr Busel		Winnipeg Metals, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1699851)											
WP2423662-004	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	10.6	11.1	4.91%	20%	----
Physical Tests (QC Lot: 1699852)											
WP2423685-006	GRL-03-B	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	1.5	2.3	0.9	Diff <2x LOR	----
Physical Tests (QC Lot: 1699882)											
WP2423662-005	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	98.5	95.5	3.0	Diff <2x LOR	----
Physical Tests (QC Lot: 1702609)											
WP2423658-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	4.3	4.2	0.08	Diff <2x LOR	----
Physical Tests (QC Lot: 1706412)											
WP2423685-001	GRL-01	pH	----	E108	0.10	pH units	7.53	7.54	0.133%	4%	----
Physical Tests (QC Lot: 1706413)											
WP2423685-001	GRL-01	Conductivity	----	E100	1.0	µS/cm	86.8	87.8	1.14%	10%	----
Physical Tests (QC Lot: 1706414)											
WP2423685-001	GRL-01	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	27.9	29.2	4.55%	20%	----
Anions and Nutrients (QC Lot: 1699864)											
WP2423685-001	GRL-01	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	6.52	6.46	1.04%	20%	----
Anions and Nutrients (QC Lot: 1699867)											
WP2423685-001	GRL-01	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1699868)											
WP2423685-001	GRL-01	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1699870)											
WP2423685-001	GRL-01	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	2.93	2.90	0.898%	20%	----
Anions and Nutrients (QC Lot: 1704101)											
WP2423728-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1710373)											
WP2423685-001	GRL-01	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0270	0.0262	2.89%	20%	----
Cyanides (QC Lot: 1703681)											
WP2423658-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	0.0016	0.0015	0.0001	Diff <2x LOR	----
Cyanides (QC Lot: 1703682)											
WP2423658-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	0.0015	0.0016	0.00001	Diff <2x LOR	----
Cyanides (QC Lot: 1703683)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1703683) - continued											
WP2423658-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	0.0017	0.0017	0.00005	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1699701)											
WP2422917-009	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.32	8.33	0.114%	20%	----
Total Metals (QC Lot: 1708382)											
WP2423685-001	GRL-01	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1708559)											
WP2423669-001	Anonymous	Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	1.49 µg/L	0.00153	2.89%	20%	----
		Beryllium, total	7440-41-7	E420	0.000100	mg/L	<0.100 µg/L	<0.000100	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<10 µg/L	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0161 µg/L	0.0000158	0.0000003	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	13.6	13.6	0.424%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.275 µg/L	0.000326	17.1%	20%	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.75 µg/L	0.00084	0.00009	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	2.51 µg/L	0.00260	0.00009	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.875 µg/L	0.000903	3.18%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0024	0.0026	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	5020 µg/L	5.23	4.18%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	66.4 µg/L	0.0680	2.38%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.114 µg/L	0.000098	0.000016	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	2.26 µg/L	0.00250	0.00024	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1100 µg/L	1.17	5.93%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	3.15 µg/L	0.00363	14.2%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.099 µg/L	0.000085	0.000014	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	3730 µg/L	4.19	11.5%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	2670 µg/L	2.58	3.32%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	26.8 µg/L	0.0269	0.319%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	1460 µg/L	1.38	0.08	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.016 µg/L	0.000019	0.000003	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	0.19 µg/L	0.00023	0.00003	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1708559) - continued											
WP2423669-001	Anonymous	Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.198 µg/L	0.000199	0.473%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	2.32 µg/L	0.00286	0.00053	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	4.4 µg/L	0.0044	0.000006	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	0.81 µg/L	0.00069	0.00012	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1704144)											
WP2419809-009	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1708384)											
WP2423685-004	GRL-02-B	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1711115)											
WP2422329-010	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1711116)											
WP2422329-010	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0169	0.0177	4.58%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00018	0.00018	0.000006	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00539	0.00535	0.798%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	3.17	3.18	0.211%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00023	0.00024	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.041	0.040	0.001	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0011	0.0010	0.00010	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.862	0.871	1.03%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00728	0.00743	2.12%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000094	0.000099	0.000005	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.581	0.570	1.92%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00108	0.00111	0.00003	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	0.000051	0.000001	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1711116) - continued											
WP2422329-010	Anonymous	Silicon, dissolved	7440-21-3	E421	0.050	mg/L	1.87	1.86	0.248%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	1.16	1.16	0.621%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.0143	0.0143	0.393%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00034	0.00034	0.000009	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000022	0.000021	0.000001	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0011	0.0012	0.0001	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1699851)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1699852)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1699882)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1702609)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1706413)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1706414)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1699864)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1699867)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1699868)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1699870)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1704101)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1710373)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1712955)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1703681)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1703682)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1703683)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1699701)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1699701) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1704810)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1704811)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1704811) - continued						
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1704814)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1708382)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1708559)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1708559) - continued						
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1708560)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1708561)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1704144)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1708384)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1711115)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1711116)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1711116) - continued						
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1711117)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1699851)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	103	85.0	115	----
Physical Tests (QCLot: 1699852)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	92.0	85.0	115	----
Physical Tests (QCLot: 1699882)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	98.4	85.0	115	----
Physical Tests (QCLot: 1702609)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	108	85.0	115	----
Physical Tests (QCLot: 1706412)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1706413)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 1706414)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 1699864)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 1699867)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	97.6	90.0	110	----
Anions and Nutrients (QCLot: 1699868)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	96.8	90.0	110	----
Anions and Nutrients (QCLot: 1699870)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	97.4	90.0	110	----
Anions and Nutrients (QCLot: 1704101)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.3	85.0	115	----
Anions and Nutrients (QCLot: 1710373)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	95.7	80.0	120	----
Anions and Nutrients (QCLot: 1712955)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.8	80.0	120	----
Cyanides (QCLot: 1703681)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.3	80.0	120	----
Cyanides (QCLot: 1703682)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1703682) - continued									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	93.4	80.0	120	----
Cyanides (QCLot: 1703683)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	83.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1699701)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
Total Metals (QCLot: 1704810)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	96.7	80.0	120	----
Total Metals (QCLot: 1704811)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	96.8	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	95.0	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	95.8	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	95.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.2	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	94.6	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	93.2	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	95.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	94.9	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	92.9	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.2	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	91.9	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	94.9	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	94.5	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	94.3	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	95.2	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	95.1	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	91.3	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	96.3	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.6	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	88.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	95.9	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	96.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1704811) - continued									
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	101	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	92.7	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	94.4	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.8	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	93.0	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	94.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	94.9	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.8	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	97.3	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	93.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	91.3	80.0	120	----
Total Metals (QCLot: 1704814)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	94.5	80.0	120	----
Total Metals (QCLot: 1708382)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	97.0	80.0	120	----
Total Metals (QCLot: 1708559)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	110	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	103	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	106	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	105	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	99.9	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.8	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	105	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.8	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	101	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	109	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	103	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	102	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	100	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1708559) - continued									
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	109	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	96.1	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	105	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	99.7	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	106	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	109	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	98.6	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	98.7	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	102	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	100	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	101	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	94.6	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	105	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	98.9	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	104	80.0	120	----
Total Metals (QCLot: 1708560)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Total Metals (QCLot: 1708561)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	118	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	97.2	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	98.3	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	110	80.0	120	----
Dissolved Metals (QCLot: 1711116)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	105	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	95.5	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	97.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	96.4	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	87.2	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	90.4	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	99.8	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	96.9	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1711116) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	94.5	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	91.8	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	89.2	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	91.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	94.9	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	104	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	92.7	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	98.7	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	96.2	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	80.8	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	104	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	91.1	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.9	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	100	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	104	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	86.8	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	92.2	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	95.6	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	94.7	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	96.3	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	93.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.2	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.6	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	90.0	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	99.6	80.0	120	----
Dissolved Metals (QCLot: 1711117)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	97.5	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1699864)										
WP2423685-001	GRL-01	Sulfate (as SO4)	14808-79-8	E235.SO4	99.5 mg/L	100 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 1699867)										
WP2423685-001	GRL-01	Nitrate (as N)	14797-55-8	E235.NO3-L	2.49 mg/L	2.5 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 1699868)										
WP2423685-001	GRL-01	Nitrite (as N)	14797-65-0	E235.NO2-L	0.496 mg/L	0.5 mg/L	99.3	75.0	125	----
Anions and Nutrients (QCLot: 1699870)										
WP2423685-001	GRL-01	Chloride	16887-00-6	E235.Cl-L	99.6 mg/L	100 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 1704101)										
WP2423728-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.104 mg/L	0.1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1710373)										
WP2423685-002	GRL-01-B	Phosphorus, total	7723-14-0	E372-U	0.245 mg/L	0.25 mg/L	98.0	70.0	130	----
Anions and Nutrients (QCLot: 1712955)										
WP2424100-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Cyanides (QCLot: 1703681)										
WP2423658-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.117 mg/L	0.125 mg/L	93.5	75.0	125	----
Cyanides (QCLot: 1703682)										
WP2423658-001	Anonymous	Cyanide, free	----	E339-L	0.118 mg/L	0.125 mg/L	94.1	75.0	125	----
Cyanides (QCLot: 1703683)										
WP2423658-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.204 mg/L	0.25 mg/L	81.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1699701)										
WP2422917-010	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1708382)										
WP2423685-002	GRL-01-B	Mercury, total	7439-97-6	E508	0.0000796 mg/L	0 mg/L	79.6	70.0	130	----
Total Metals (QCLot: 1708559)										
WP2423669-001	Anonymous	Antimony, total	7440-36-0	E420	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0100 mg/L	0.01 mg/L	100	70.0	130	----
		Boron, total	7440-42-8	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00426 mg/L	0.004 mg/L	106	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0110 mg/L	0.01 mg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1708559) - continued										
WP2423669-001	Anonymous	Cobalt, total	7440-48-4	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Copper, total	7440-50-8	E420	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Lead, total	7439-92-1	E420	0.0201 mg/L	0.02 mg/L	101	70.0	130	----
		Lithium, total	7439-93-2	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		Potassium, total	7440-09-7	E420	4.61 mg/L	4 mg/L	115	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0248 mg/L	0.02 mg/L	124	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Silicon, total	7440-21-3	E420	11.6 mg/L	10 mg/L	116	70.0	130	----
		Silver, total	7440-22-4	E420	0.00421 mg/L	0.004 mg/L	105	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0431 mg/L	0.04 mg/L	108	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00386 mg/L	0.004 mg/L	96.5	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Tin, total	7440-31-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0199 mg/L	0.02 mg/L	99.7	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00411 mg/L	0.004 mg/L	103	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, total	7440-66-6	E420	0.405 mg/L	0.4 mg/L	101	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0418 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1704144)										
WP2419809-010	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000806 mg/L	0 mg/L	80.6	70.0	130	----
Dissolved Metals (QCLot: 1708384)										
WP2423685-005	GRL-03	Mercury, dissolved	7439-97-6	E509	0.0000932 mg/L	0 mg/L	93.2	70.0	130	----
Dissolved Metals (QCLot: 1711115)										
WP2422329-010	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	11.8 mg/L	10 mg/L	118	70.0	130	----
Dissolved Metals (QCLot: 1711116)										
WP2422329-010	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.222 mg/L	0.2 mg/L	111	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0224 mg/L	0.02 mg/L	112	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0448 mg/L	0.04 mg/L	112	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0106 mg/L	0.01 mg/L	106	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.098 mg/L	0.1 mg/L	98.2	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00435 mg/L	0.004 mg/L	109	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	4.38 mg/L	4 mg/L	110	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0108 mg/L	0.01 mg/L	108	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1711116) - continued										
WP2422329-010	Anonymous	Cobalt, dissolved	7440-48-4	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Iron, dissolved	7439-89-6	E421	1.98 mg/L	2 mg/L	98.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	1.11 mg/L	1 mg/L	111	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.36 mg/L	4 mg/L	109	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0221 mg/L	0.02 mg/L	111	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0412 mg/L	0.04 mg/L	103	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.0 mg/L	10 mg/L	100	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00407 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.03 mg/L	2 mg/L	101	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	21.2 mg/L	20 mg/L	106	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0459 mg/L	0.04 mg/L	115	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00417 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0222 mg/L	0.02 mg/L	111	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0193 mg/L	0.02 mg/L	96.6	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00429 mg/L	0.004 mg/L	107	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.434 mg/L	0.4 mg/L	108	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush ...inimum
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rus
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% ru
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 2
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush holidays and for
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	**Date and Time Req**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	**Analy**
Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):	WP2423685	**ALS Contact:** Judy Dalmaijer	**Sampler:** EM/JM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (u
	GRL-01	7-Oct-24	11:30	Water	10		X		7.75	8.89	83
	GRL-01-B	7-Oct-24	11:50	Water	10		X		6.69	8.87	83
	GRL-02	7-Oct-24	12:40	Water	10		X		6.69	7.52	95
	GRL-02-B	7-Oct-24	13:00	Water	10		X		6.78	7.57	95
	GRL-03	7-Oct-24	9:50	Water	10		X		7.31	10.3	83
	GRL-03-B	7-Oct-24	10:05	Water	10		X		5.98	10.6	109
	SW-DUP03 ✓	7-Oct-24	11:30	Water	10		X		7.75	8.89	83
	SW-BLANK03	7-Oct-24	11:30	Water	9		X		N/A	N/A	N/A

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Oct 8 2024	Time:	Received by: RS	Date: 9 oct 24	Time: 858	Received by:	Time:

Emach

12.1°C

Environmental Division
Winnipeg
Work Order Reference
WP2423685

Telephone +1 204 255 9720

Sample Intake

Client: Kinross - great Bear Resources				**COC receipt info complete**		☐
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:			
Green/white	17 x 500ml	Orange/black	
Purple/white	8 x 250 ml	Dark blue/white	
Red/white	16 x 125 ml	Black/white	
Dark green/white	8 x 60ml	Brown/white	
Grey/white		Pink/white	
Yellow/black	16 x 40 ml	Beige/white	
Light blue/white		Other (specify) amber white/plastic	8 x 250ml 8 x 125 ml

Comments:
12.1 c° ice

Sample Login

Receipt Window	✓/X	N/A	**Bottles**	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	**Yes**	**No**
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2424051**			
Client	:	**Great Bear Resources Ltd**	Laboratory	:	ALS Environmental - Winnipeg
Contact	:	Ashley Moncrief	Account Manager	:	Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	:	1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	807 630 0203	Telephone	:	+1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	:	10-Oct-2024 09:54
PO	:	PPR-022-3	Date Analysis Commenced	:	11-Oct-2024
C-O-C number	:	----	Issue Date	:	18-Oct-2024 15:33
Sampler	:	----			
Site	:	----			
Quote number	:	2024 Standing offer			
No. of samples received	:	10			
No. of samples analysed	:	10			

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Oleksandr Busel		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
°C	degrees celsius
pH units	pH units
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-01	PL-01B	PL-02	PL-02B	PL-03
					Client sampling date / time	08-Oct-2024 10:00	08-Oct-2024 14:40	08-Oct-2024 13:50	08-Oct-2024 14:15	08-Oct-2024 13:05
						WP2424051-001	WP2424051-002	WP2424051-003	WP2424051-004	WP2424051-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.44	6.82	7.75	7.03	7.84
Temperature, field	----	EF001/WP	0.10	°C		7.66	7.71	8.37	6.71	10.8
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		31.6	32.0	38.1	44.4	35.6
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		31.6	32.0	38.1	44.4	35.6
Conductivity	----	E100/WP	1.0	µS/cm		89.8	89.1	90.6	95.4	88.3
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		38.5	41.8	42.6	45.0	40.1
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		40.6	39.2	45.4	50.7	40.0
pH	----	E108/WP	0.10	pH units		7.56	7.51	7.59	7.67	7.59
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		79.5	81.5	83.5	85.9	76.5
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.0	6.4	5.7	6.3	2.8
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0120	0.0127	0.0132	0.0106	0.0806
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	0.0011
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		2.87	2.83	1.48	0.44	1.70
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0099	0.0108	0.0427	0.0239	0.0693
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0099	0.0108	0.0439	0.0239	0.0693

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-01	PL-01B	PL-02	PL-02B	PL-03
					Client sampling date / time	08-Oct-2024 10:00	08-Oct-2024 14:40	08-Oct-2024 13:50	08-Oct-2024 14:15	08-Oct-2024 13:05
						WP2424051-001	WP2424051-002	WP2424051-003	WP2424051-004	WP2424051-005
						Result	Result	Result	Result	Result
Anions and Nutrients										
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		<0.0010	<0.0010	0.0012	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0266	0.0256	0.0311	0.0241	0.0357
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		5.79	5.80	3.55	2.01	3.82
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		16.5	15.2	16.4	16.4	14.4
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.114	0.127	0.238	0.281	0.0914
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00024	0.00024	0.00012	0.000019	0.00014
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00856	0.00876	0.00484	0.00137	0.00703
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00842	0.00868	0.0111	0.0135	0.00878
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.000011	0.0000083	0.000019	0.000012	0.0000069
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	0.0000020	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0081	0.0069	0.0066	0.0061	0.0056
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000052	0.0000091	0.0000065	0.0000084	0.0000034
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.6	10.9	13.1	14.6	11.3
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000014	0.000014	0.000035	0.000037	0.000010
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00030	0.00033	0.00056	0.00064	0.00025

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-01	PL-01B	PL-02	PL-02B	PL-03
					Client sampling date / time	08-Oct-2024 10:00	08-Oct-2024 14:40	08-Oct-2024 13:50	08-Oct-2024 14:15	08-Oct-2024 13:05
						WP2424051-001	WP2424051-002	WP2424051-003	WP2424051-004	WP2424051-005
						Result	Result	Result	Result	Result
Total Metals										
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00012	0.00012	0.00013	0.00014	0.000062
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00139	0.00148	0.00154	0.00143	0.00137
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.213	0.226	0.285	0.372	0.108
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000118	0.000107	0.000138	0.000145	0.000045
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0021	0.0015	0.0015	0.0015	0.0013
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.83	2.91	3.07	3.46	2.85
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0101	0.0110	0.0116	0.0144	0.00688
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000177	0.000201	0.000216	0.000232	0.000228
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00124	0.00132	0.00099	0.00073	0.00090
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.00	1.05	1.04	1.04	0.982
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00179	0.00177	0.00211	0.00226	0.00185
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000049	Not Detected	0.000024	0.000032	0.000122
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.21	2.32	2.24	2.31	2.03
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	0.0000012	0.0000014	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.54	3.11	1.91	1.44	1.96
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0292	0.0318	0.0284	0.0275	0.0268
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.95	2.06	1.34	0.99	1.36
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000027	0.0000023	0.0000040	0.0000043	0.0000022

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-01	PL-01B	PL-02	PL-02B	PL-03
					Client sampling date / time	08-Oct-2024 10:00	08-Oct-2024 14:40	08-Oct-2024 13:50	08-Oct-2024 14:15	08-Oct-2024 13:05
						WP2424051-001	WP2424051-002	WP2424051-003	WP2424051-004	WP2424051-005
						Result	Result	Result	Result	Result
Total Metals										
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000037	0.000039	0.000046	0.000053	0.000025
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000047	0.000029	Not Detected	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00521	0.00584	0.00925	0.0115	0.00290
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		0.000015	0.000018	Not Detected	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000098	0.000105	0.000134	0.000131	0.000095
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00068	0.00074	0.00099	0.00102	0.00072
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.0015	0.0023	0.0010	0.0011	0.00048
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00017	0.00021	0.00026	0.00034	0.00019
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0222	0.0284	0.0257	0.0330	0.0142
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00029	0.00018	0.00015	0.000094	0.00016
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00837	0.00536	0.00432	0.00269	0.00682
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00789	0.00924	0.00925	0.0106	0.00840
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000086	0.0000059	0.0000053	0.0000093	Not Detected
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.010	0.0088	0.0081	0.0073	0.0068
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		Not Detected	0.0000014	0.0000013	0.0000013	0.0000025
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		10.6	11.8	12.0	12.8	11.2
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000017	0.0000014	0.0000017	0.0000035	0.0000023
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00013	0.00017	0.00017	0.00018	0.00014
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000061	0.000044	0.000031	0.000027	0.000030

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-01	PL-01B	PL-02	PL-02B	PL-03
					Client sampling date / time	08-Oct-2024 10:00	08-Oct-2024 14:40	08-Oct-2024 13:50	08-Oct-2024 14:15	08-Oct-2024 13:05
						WP2424051-001	WP2424051-002	WP2424051-003	WP2424051-004	WP2424051-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00114	0.00106	0.00117	0.00112	0.00112
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.085	0.099	0.069	0.096	0.038
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000029	0.000034	0.000032	0.000033	0.000013
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.00034	0.00014	0.00023	0.00014	0.00028
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.92	2.99	3.07	3.16	2.94
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00373	0.00347	0.00112	0.00190	0.00135
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000196	0.000187	0.000226	0.000223	0.000233
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00118	0.00084	0.00087	0.00062	0.00083
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.960	0.934	0.929	0.950	0.908
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00163	0.00160	0.00164	0.00181	0.00160
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000128 DTSE	0.000054	0.000186 DTSE	0.000107	0.000077
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.03	1.96	1.76	1.75	1.85
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		2.65	2.10	1.83	1.70	2.02
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0286	0.0263	0.0259	0.0261	0.0252
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.96	1.44	1.12	0.82	1.38
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000018	0.0000022	0.0000025	0.0000028	0.0000017
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000026	0.000040	0.000034	0.000042	0.000023

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-01	PL-01B	PL-02	PL-02B	PL-03
					Client sampling date / time	08-Oct-2024 10:00	08-Oct-2024 14:40	08-Oct-2024 13:50	08-Oct-2024 14:15	08-Oct-2024 13:05
						WP2424051-001	WP2424051-002	WP2424051-003	WP2424051-004	WP2424051-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000027	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00062	0.00101	0.00077	0.00104	0.00035
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000021	0.000018	0.000017	Not Detected	0.000020
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000094	0.000107	0.000107	0.000119	0.000089
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00045	0.00047	0.00050	0.00056	0.00050
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00021	0.00022	0.00012	Not Detected	0.00016
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00015	0.00019	0.00022	0.00024	0.00016
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-03B	PL-4	PL-04B	PL-05	PL-05B
					Client sampling date / time	08-Oct-2024 13:35	08-Oct-2024 12:05	08-Oct-2024 12:35	08-Oct-2024 11:05	08-Oct-2024 11:35
						WP2424051-006	WP2424051-007	WP2424051-008	WP2424051-009	WP2424051-010
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.00	7.71	6.86	7.32	7.00
Temperature, field	----	EF001/WP	0.10	°C		9.66	10.3	9.90	9.00	9.47
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		35.7	35.9	35.6	35.4	35.5

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-03B	PL-4	PL-04B	PL-05	PL-05B
					Client sampling date / time	08-Oct-2024 13:35	08-Oct-2024 12:05	08-Oct-2024 12:35	08-Oct-2024 11:05	08-Oct-2024 11:35
						WP2424051-006	WP2424051-007	WP2424051-008	WP2424051-009	WP2424051-010
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		35.7	35.9	35.6	35.4	35.5
Conductivity	----	E100/WP	1.0	µS/cm		88.1	88.8	89.2	88.6	88.4
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		39.6	40.9	40.2	39.7	40.6
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		41.8	42.2	39.6	41.8	40.4
pH	----	E108/WP	0.10	pH units		7.60	7.58	7.63	7.56	7.63
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		82.2	79.9	77.2	74.5	79.5
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		2.5	2.9	2.9	3.1	3.3
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0130	0.0082	0.0104	0.0075	0.0279
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		1.72	1.72	1.69	1.70	1.73
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0716	0.0637	0.0692	0.0573	0.0809
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0732	0.0653	0.0704	0.0573	0.0809
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L		0.0016	0.0016	0.0012	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L		0.0300	0.0354	0.0329	0.0325	0.0316
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L		3.85	3.87	3.82	3.87	3.88
Cyanides										
Cyanide, free	----	E339-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-03B	PL-4	PL-04B	PL-05	PL-05B
					Client sampling date / time	08-Oct-2024 13:35	08-Oct-2024 12:05	08-Oct-2024 12:35	08-Oct-2024 11:05	08-Oct-2024 11:35
						WP2424051-006	WP2424051-007	WP2424051-008	WP2424051-009	WP2424051-010
						Result	Result	Result	Result	Result
Cyanides										
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L		14.0	14.5	13.9	13.8	13.2
Total Metals										
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L		0.135	0.0846	0.121	0.133	0.123
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L		0.00016	0.00016	0.00014	0.00017	0.00015
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L		0.00725	0.00702	0.00718	0.00765	0.00764
Barium, total	7440-39-3	E420/WP	0.00010	mg/L		0.00905	0.00827	0.00879	0.00913	0.00865
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L		0.0000084	0.000017	0.0000083	0.000011	0.0000061
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L		0.000016	0.0000063	Not Detected	Not Detected	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L		0.0047	0.0057	0.0044	0.0050	0.0050
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L		0.0000048	0.0000034	0.0000027	0.0000035	0.0000032
Calcium, total	7440-70-2	E420/WP	0.050	mg/L		11.8	12.0	11.2	11.8	11.3
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L		0.000014	0.000010	0.000010	0.000014	0.000013
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		0.00034	0.00026	0.00032	0.00035	0.00037
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000084	0.000063	0.000075	0.000082	0.000088
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00144	0.00134	0.00139	0.00154	0.00156
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.164	0.118	0.148	0.153	0.156
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000077	0.000049	0.000062	0.000078	0.000079
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0015	0.0014	0.0016	0.0014	0.0016

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-03B	PL-4	PL-04B	PL-05	PL-05B
					Client sampling date / time	08-Oct-2024 13:35	08-Oct-2024 12:05	08-Oct-2024 12:35	08-Oct-2024 11:05	08-Oct-2024 11:35
						WP2424051-006	WP2424051-007	WP2424051-008	WP2424051-009	WP2424051-010
						Result	Result	Result	Result	Result
Total Metals										
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.00	2.96	2.82	2.99	2.95
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.00963	0.00722	0.00862	0.00806	0.00881
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000252	0.000228	0.000223	0.000233	0.000209
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00108	0.00105	0.00110	0.00118	0.00122
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		0.030	<0.030	<0.030	0.045	<0.030
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.01	1.01	1.02	1.04	1.06
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00194	0.00186	0.00183	0.00195	0.00184
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000168	0.000086	0.000093	0.000041	Not Detected
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.33	2.20	2.26	2.24	2.22
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		2.09	2.13	2.10	2.18	2.23
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0273	0.0260	0.0275	0.0277	0.0261
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		1.59	1.63	1.51	1.61	1.70
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	0.00012	Not Detected	Not Detected	Not Detected
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000023	Not Detected	Not Detected	Not Detected	Not Detected
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000033	0.000034	0.000043	0.000033	0.000031
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		0.000044	Not Detected	Not Detected	0.000060	0.000081
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00467	0.00287	0.00435	0.00522	0.00503
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	0.000016	Not Detected	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000107	0.000106	0.000115	0.000106	0.000107

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-03B	PL-4	PL-04B	PL-05	PL-05B
					Client sampling date / time	08-Oct-2024 13:35	08-Oct-2024 12:05	08-Oct-2024 12:35	08-Oct-2024 11:05	08-Oct-2024 11:35
						WP2424051-006	WP2424051-007	WP2424051-008	WP2424051-009	WP2424051-010
						Result	Result	Result	Result	Result
Total Metals										
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00080	0.00072	0.00077	0.00083	0.00083
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.00052	0.00047	0.00054	0.0011	0.00100
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00022	0.00019	0.00021	0.00025	0.00024
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0135	0.0154	0.0156	0.0176	0.0136
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.00018	0.00018	0.00018	0.00018	0.00019
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00682	0.00657	0.00660	0.00713	0.00715
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00839	0.00834	0.00858	0.00874	0.00841
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000062	0.000011	0.0000042	Not Detected	0.0000073
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0058	0.0062	0.0055	0.0065	0.0055
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000017	Not Detected	Not Detected	0.00000050	Not Detected
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		11.2	11.5	11.4	11.3	11.5
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000026	0.0000025	0.0000038	0.0000013	0.0000017
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00013	0.00014	0.00014	0.00016	0.00013
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000029	0.000028	0.000032	0.000032	0.000031
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00110	0.00110	0.00124	0.00184	0.00121
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.038	0.039	0.038	0.036	0.032
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000012	0.000018	0.000017	0.000020	0.000014
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.00026	0.00029	0.00033	0.00041	0.00050
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.82	2.95	2.86	2.79	2.89

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	PL-03B	PL-4	PL-04B	PL-05	PL-05B
					Client sampling date / time	08-Oct-2024 13:35	08-Oct-2024 12:05	08-Oct-2024 12:35	08-Oct-2024 11:05	08-Oct-2024 11:35
						WP2424051-006	WP2424051-007	WP2424051-008	WP2424051-009	WP2424051-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00099	0.00092	0.00073	0.00098	0.00114
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000220	0.000225	0.000221	0.000224	0.000270
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00086	0.00085	0.00084	0.00091	0.00089
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.915	0.907	0.920	0.928	0.922
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00160	0.00182	0.00162	0.00168	0.00172
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		Not Detected	0.000081	0.000103	0.000075	0.000074
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		1.83	1.81	1.78	1.80	1.75
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.96	2.03	1.95	2.00	1.97
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0262	0.0252	0.0257	0.0253	0.0262
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		1.40	1.39	1.42	1.51	1.38
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000025	0.0000023	0.0000020	0.0000026	0.0000014
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000023	0.000022	0.000024	0.000027	0.000024
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	0.000039	0.000029
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00042	0.00038	0.00036	0.00045	0.00036
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		0.000020	0.000018	0.000016	0.000017	0.000014
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000098	0.000086	0.000101	0.000089	0.000095
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00048	0.00047	0.00048	0.00051	0.00049

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	PL-03B	PL-4	PL-04B	PL-05	PL-05B
					Client sampling date / time	08-Oct-2024 13:35	08-Oct-2024 12:05	08-Oct-2024 12:35	08-Oct-2024 11:05	08-Oct-2024 11:35
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit		WP2424051-006	WP2424051-007	WP2424051-008	WP2424051-009	WP2424051-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00034	0.00018	0.00016	0.00098	0.00013
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00018	0.00018	0.00018	0.00020	0.00017
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2424051**	Page	: 1 of 39
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 10-Oct-2024 09:54
PO	: PPR-022-3	Issue Date	: 18-Oct-2024 15:35
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Total Metals	QC-MRG5-1711159 002	----	Boron, total	7440-42-8	E420	75.6 % MES	80.0-120%	Recovery less than lower control limit
Dissolved Metals	QC-MRG3-1713526 002	----	Boron, dissolved	7440-42-8	E421	79.9 % MES	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-01	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-01B	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-02	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-02B	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-03	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-03B	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-04B	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-05	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-05B	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) PL-4	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-01	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-01B	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-02	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-02B	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-03	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE PL-03B	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
PL-04B	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
PL-05	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
PL-05B	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
PL-4	E235.Cl-L	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-01	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-01B	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-02	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-02B	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
PL-03	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE PL-03B	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE PL-04B	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE PL-05	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE PL-05B	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE PL-4	E235.NO3-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-01	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-01B	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-02	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-02B	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-03	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-03B	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-04B	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-05	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-05B	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE PL-4	E235.NO2-L	08-Oct-2024	11-Oct-2024	3 days	3 days	✓	11-Oct-2024	3 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-01	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-01B	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-02	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-02B	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-03	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-03B	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-04B	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-05	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-05B	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE PL-4	E235.SO4	08-Oct-2024	11-Oct-2024	28 days	3 days	✓	11-Oct-2024	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-01	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-01B	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-02	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-02B	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-03	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-03B	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-04B	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-05	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-05B	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) PL-4	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-01	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01B	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02B	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03B	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04B	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05B	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-4	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-01B	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-02B	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-03B	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-04B	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
PL-05B	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-4	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-01	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-01B	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-02	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-02B	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-03	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-03B	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-04B	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-05	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-05B	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) PL-4	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-01	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-01B	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-02	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-02B	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-03	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-03B	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-04B	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-05	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-05B	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) PL-4	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-01	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-01B	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-02	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-02B	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-03	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) PL-03B	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PL-04B	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PL-05	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PL-05B	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
PL-4	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-01	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-01B	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-02	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-02B	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
PL-03	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-03B	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-04B	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-05	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-05B	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) PL-4	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-01	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-01B	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-02	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-02B	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-03	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-03B	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-04B	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-05	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-05B	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) PL-4	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-01	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-01B	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-02	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	

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			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-02B	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-03	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-03B	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-04B	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-05	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-05B	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) PL-4	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-01	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-01B	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-02	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-02B	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-03	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-03B	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-04B	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-05	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-05B	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) PL-4	E358-L	08-Oct-2024	12-Oct-2024	28 days	4 days	✓	12-Oct-2024	28 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-01	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE PL-01B	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-02	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-02B	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-03	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-03B	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-04B	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-05	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-05B	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE PL-4	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE PL-01B	E290	08-Oct-2024	15-Oct-2024	14 days	7 days	✓	15-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-02	E290	08-Oct-2024	15-Oct-2024	14 days	7 days	✓	15-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-02B	E290	08-Oct-2024	15-Oct-2024	14 days	7 days	✓	15-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-03	E290	08-Oct-2024	15-Oct-2024	14 days	7 days	✓	15-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-03B	E290	08-Oct-2024	15-Oct-2024	14 days	7 days	✓	15-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-04B	E290	08-Oct-2024	15-Oct-2024	14 days	7 days	✓	15-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-4	E290	08-Oct-2024	15-Oct-2024	14 days	7 days	✓	15-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-01	E290	08-Oct-2024	15-Oct-2024	14 days	8 days	✓	15-Oct-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE PL-05	E290	08-Oct-2024	15-Oct-2024	14 days	8 days	✓	15-Oct-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE PL-05B	E290	08-Oct-2024	15-Oct-2024	14 days	8 days	✓	15-Oct-2024	14 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-01B	E100	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-02	E100	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-02B	E100	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-03	E100	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-03B	E100	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-04B	E100	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-4	E100	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-01	E100	08-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : Conductivity in Water										
HDPE PL-05	E100	08-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE PL-05B	E100	08-Oct-2024	15-Oct-2024	28 days	8 days	✓	15-Oct-2024	28 days	8 days	✓
Physical Tests : pH by Meter										
HDPE PL-01B	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	176 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	176 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-02	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	177 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	177 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-02B	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	177 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	177 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-03	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	178 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	178 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-03B	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	178 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	178 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-04B	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	179 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	179 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-4	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	179 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	179 hrs	× EHTR-FM

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE PL-05	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	180 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	180 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-05B	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	180 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	180 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE PL-01	E108	08-Oct-2024	15-Oct-2024	0.25 hrs	181 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	181 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-01	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-01B	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-02	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-02B	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-03	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-03B	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-04B	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-05	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-05B	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE PL-4	E162-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-01	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-01B	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-02	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-02B	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-03	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-03B	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-04B	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-05	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-05B	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] PL-4	E160-L	08-Oct-2024	----	----	----		16-Oct-2024	7 days	8 days	× EHT
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-01	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-01B	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-02	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-02B	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-03	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-03B	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-04B	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-05	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-05B	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) PL-4	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-01	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-01B	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-02	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-02B	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-03	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-03B	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-04B	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-05	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-05B	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) PL-4	E508	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-01	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-01B	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-02	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-02B	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-03	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-03B	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-04B	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-05	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-05B	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) PL-4	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-01	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-01B	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-02	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-02B	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-03	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-03B	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-04B	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-05	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-05B	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) PL-4	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1711794	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1711024	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1710526	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705737	1	15	6.6	5.0	✓
Conductivity in Water	E100	1711023	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1713530	0	14	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1713189	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1713526	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1706247	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1713531	0	14	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1713106	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705738	1	24	4.1	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705739	1	24	4.1	5.0	✗
pH by Meter	E108	1711025	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1705734	2	35	5.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713904	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1711161	0	18	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1713107	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1713186	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1711159	1	35	2.8	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712943	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1711160	1	32	3.1	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1709604	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713105	1	18	5.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1711794	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1711024	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1710526	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705737	2	15	13.3	5.0	✓
Conductivity in Water	E100	1711023	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1713530	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1713189	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1713526	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1706247	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1713531	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1713106	1	18	5.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705738	2	24	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705739	2	24	8.3	5.0	✓
pH by Meter	E108	1711025	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1705734	2	35	5.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713904	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1711161	2	18	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1713107	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1713186	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1711159	2	35	5.7	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712943	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1711160	2	32	6.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1709604	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713105	1	18	5.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1711794	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1711024	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1710526	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705737	2	15	13.3	5.0	✓
Conductivity in Water	E100	1711023	1	14	7.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1713530	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1713189	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1713526	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1706247	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1713531	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1713106	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705738	2	24	8.3	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705739	2	24	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1705734	2	35	5.7	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713904	2	40	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1711161	2	18	11.1	5.0	✓
Total Cyanide (Low Level)	E333-L	1713107	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1713186	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1711159	2	35	5.7	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712943	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1711160	2	32	6.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1709604	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713105	1	18	5.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1710526	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1705737	1	15	6.6	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1713530	0	14	0.0	5.0	×
Dissolved Mercury in Water by CVAAS	E509	1713189	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1713526	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1706247	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1713531	0	14	0.0	5.0	×
Free Cyanide (Low Level)	E339-L	1713106	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705738	1	24	4.1	5.0	×
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705739	1	24	4.1	5.0	×
Sulfate in Water by IC	E235.SO4	1705734	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1711161	1	18	5.5	5.0	✓
Total Cyanide (Low Level)	E333-L	1713107	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1713186	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1711159	1	35	2.8	5.0	×
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712943	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1711160	1	32	3.1	5.0	×
WAD Cyanide (Low Level)	E336-L	1713105	1	18	5.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2424051**	Page	: 1 of 21
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 10-Oct-2024 09:54
PO	: PPR-022-3	Date Analysis Commenced	: 11-Oct-2024
C-O-C number	: ----	Issue Date	: 18-Oct-2024 15:41
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Oleksandr Busel		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1709604)											
WP2423969-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	10.1	11.7	14.6%	20%	----
Physical Tests (QC Lot: 1711023)											
WP2424051-001	PL-01	Conductivity	----	E100	1.0	µS/cm	89.8	91.4	1.77%	10%	----
Physical Tests (QC Lot: 1711024)											
WP2424051-001	PL-01	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	31.6	31.4	0.635%	20%	----
Physical Tests (QC Lot: 1711025)											
WP2424051-001	PL-01	pH	----	E108	0.10	pH units	7.56	7.50	0.797%	4%	----
Physical Tests (QC Lot: 1711794)											
WP2424051-001	PL-01	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1713904)											
WP2424000-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	817	818	0.122%	20%	----
Physical Tests (QC Lot: 1713905)											
WP2424051-004	PL-02B	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	85.9	91.5	5.7	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1705734)											
WP2424038-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1705782)											
WP2424051-006	PL-03B	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	3.85	3.79	1.60%	20%	----
Anions and Nutrients (QC Lot: 1705783)											
WP2424051-006	PL-03B	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.72	1.70	1.32%	20%	----
Anions and Nutrients (QC Lot: 1705784)											
WP2424051-006	PL-03B	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0716	0.0713	0.498%	20%	----
Anions and Nutrients (QC Lot: 1705785)											
WP2424051-006	PL-03B	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0016	0.0016	0.000006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1710526)											
WP2424027-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0100	mg/L	0.516	0.555	7.35%	20%	----
Anions and Nutrients (QC Lot: 1712943)											
WP2422924-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0257	0.0227	12.5%	20%	----
Anions and Nutrients (QC Lot: 1712944)											
WP2424051-002	PL-01B	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0256	0.0246	4.11%	20%	----
Cyanides (QC Lot: 1713105)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1713105) - continued											
WP2424038-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1713106)											
WP2424038-001	Anonymous	Cyanide, free	----	E339-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1713107)											
WP2424038-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0050	mg/L	0.0115	0.0102	0.0013	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1706247)											
WP2423533-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	2.30	2.35	0.06	Diff <2x LOR	----
Total Metals (QC Lot: 1711159)											
WP2424056-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<3.0 µg/L	<0.0030	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.27 µg/L	0.00028	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	22.6 µg/L	0.0237	4.89%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	33 µg/L	0.032	0.0003	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	18.4	19.3	4.94%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	5.27 µg/L	0.00544	3.30%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	<10 µg/L	<0.010	0	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.057 µg/L	0.000062	0.000005	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0066	0.0073	0.0007	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	6000 µg/L	6.24	3.88%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	1.15 µg/L	0.00114	1.13%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.233 µg/L	0.000241	0.000008	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	921 µg/L	0.988	7.07%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.48 µg/L	0.00047	0.000009	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	3920 µg/L	3.89	0.728%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	12500 µg/L	12.8	2.69%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	58.0 µg/L	0.0605	4.28%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1711159) - continued											
WP2424056-001	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	5520 µg/L	6.04	8.97%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.30 µg/L	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.381 µg/L	0.000395	3.58%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<3.0 µg/L	0.0031	0.00007	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1711203)											
WP2424051-006	PL-03B	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.030	<0.030	0.00008	Diff <2x LOR	----
Total Metals (QC Lot: 1713186)											
WP2423878-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1713189)											
WP2423859-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1713526)											
WP2423836-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00300	0.00302	0.696%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0381	0.0385	1.10%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.126	0.123	2.70%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	44.0	43.3	1.46%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00021	0.00020	0.000008	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00044	0.00043	0.000001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0235	0.0259	9.91%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	46.7	45.2	3.30%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1713526) - continued											
WP2423836-001	Anonymous	Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00704	0.00716	1.82%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00225	0.00217	3.34%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00058	0.00056	0.00002	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	3.25	3.29	1.16%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00143	0.00148	0.00004	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.07	6.08	0.144%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	28.8	27.9	3.24%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.400	0.388	3.20%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	21.4	22.0	2.75%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00108	0.00106	1.81%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0016	0.0015	0.00003	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1709604)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1711023)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1711024)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1711794)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1713904)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1713905)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1705734)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1705737)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1705738)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1705739)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1705782)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1705783)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1705784)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1705785)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1710526)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1712943)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1712944)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1712944) - continued						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1713105)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1713106)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1713107)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1706247)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1711159)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1711159) - continued						
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1711160)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1711161)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1711201)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1711201) - continued						
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1711202)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1711203)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1713186)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1713189)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1713526)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1713526) - continued						
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1713530)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1713531)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1709604)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	94.3	85.0	115	----
Physical Tests (QCLot: 1711023)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1711024)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1711025)									
pH	----	E108	----	pH units	7 pH units	99.6	98.0	102	----
Physical Tests (QCLot: 1711794)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1713904)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	99.6	85.0	115	----
Physical Tests (QCLot: 1713905)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	99.2	85.0	115	----
Anions and Nutrients (QCLot: 1705734)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1705737)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1705738)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1705739)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1705782)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1705783)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1705784)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1705785)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1710526)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1712943)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.7	80.0	120	----
Anions and Nutrients (QCLot: 1712944)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.2	80.0	120	----
Cyanides (QCLot: 1713105)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.2	80.0	120	----
Cyanides (QCLot: 1713106)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.5	80.0	120	----
Cyanides (QCLot: 1713107)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	88.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1706247)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	101	80.0	120	----
Total Metals (QCLot: 1711159)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.0	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	94.5	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	96.0	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	96.8	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	83.0	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	98.4	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	# 75.6	80.0	120	MES
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	94.4	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	86.2	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	92.1	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	91.5	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	94.2	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	86.8	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	93.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	89.7	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	102	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	92.6	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	92.4	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	90.4	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.1	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	95.6	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1711159) - continued									
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	89.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	91.9	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	86.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	98.0	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	93.8	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	95.3	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.4	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	93.6	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	96.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	92.5	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	88.5	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	93.2	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	97.3	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	93.4	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	91.8	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	89.4	80.0	120	----
Total Metals (QCLot: 1711160)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	97.6	80.0	120	----
Total Metals (QCLot: 1711161)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	94.1	80.0	120	----
Total Metals (QCLot: 1711201)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	94.6	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	96.8	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	94.2	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	92.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	90.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	88.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.2	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.1	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	87.2	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1711201) - continued									
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	96.9	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	95.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.4	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	94.8	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.0	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	96.0	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	93.3	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	95.8	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.2	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.6	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	96.1	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.7	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	90.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.3	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	93.1	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.9	80.0	120	----
Total Metals (QCLot: 1711202)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Total Metals (QCLot: 1711203)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	92.1	80.0	120	----
Total Metals (QCLot: 1713186)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.9	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1713526)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	93.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.5	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	95.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	94.6	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	84.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1713526) - continued									
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	92.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	# 79.9	80.0	120	MES
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.9	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	91.5	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.7	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.1	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	91.0	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	81.9	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	95.2	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	95.8	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	96.2	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.3	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	91.4	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	93.3	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	87.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.3	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	91.6	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.1	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	91.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.1	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.5	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.9	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	94.6	80.0	120	----
Dissolved Metals (QCLot: 1713530)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	93.5	80.0	120	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1705734)										
WP2424038-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1705782)										
WP2424051-006	PL-03B	Sulfate (as SO4)	14808-79-8	E235.SO4	115 mg/L	100 mg/L	115	75.0	125	----
Anions and Nutrients (QCLot: 1705783)										
WP2424051-006	PL-03B	Chloride	16887-00-6	E235.Cl-L	118 mg/L	100 mg/L	118	75.0	125	----
Anions and Nutrients (QCLot: 1705784)										
WP2424051-006	PL-03B	Nitrate (as N)	14797-55-8	E235.NO3-L	2.87 mg/L	2.5 mg/L	115	75.0	125	----
Anions and Nutrients (QCLot: 1705785)										
WP2424051-006	PL-03B	Nitrite (as N)	14797-65-0	E235.NO2-L	0.575 mg/L	0.5 mg/L	115	75.0	125	----
Anions and Nutrients (QCLot: 1710526)										
WP2424027-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1712943)										
WP2422924-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.249 mg/L	0.25 mg/L	99.7	70.0	130	----
Anions and Nutrients (QCLot: 1712944)										
WP2424051-003	PL-02	Phosphorus, total	7723-14-0	E372-U	0.236 mg/L	0.25 mg/L	94.3	70.0	130	----
Cyanides (QCLot: 1713105)										
WP2424038-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.626 mg/L	0.625 mg/L	100	75.0	125	----
Cyanides (QCLot: 1713106)										
WP2424038-001	Anonymous	Cyanide, free	----	E339-L	0.643 mg/L	0.625 mg/L	103	75.0	125	----
Cyanides (QCLot: 1713107)										
WP2424038-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	1.11 mg/L	1.25 mg/L	88.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1706247)										
WP2423533-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.09 mg/L	5 mg/L	102	70.0	130	----
Total Metals (QCLot: 1711159)										
WP2424056-001	Anonymous	Aluminum, total	7429-90-5	E420	0.217 mg/L	0.2 mg/L	108	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0409 mg/L	0.04 mg/L	102	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0112 mg/L	0.01 mg/L	112	70.0	130	----
		Boron, total	7440-42-8	E420	0.091 mg/L	0.1 mg/L	90.8	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00431 mg/L	0.004 mg/L	108	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1711159) - continued										
WP2424056-001	Anonymous	Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Copper, total	7440-50-8	E420	0.0217 mg/L	0.02 mg/L	109	70.0	130	----
		Iron, total	7439-89-6	E420	2.10 mg/L	2 mg/L	105	70.0	130	----
		Lead, total	7439-92-1	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Lithium, total	7439-93-2	E420	0.117 mg/L	0.1 mg/L	117	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0197 mg/L	0.02 mg/L	98.3	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Potassium, total	7440-09-7	E420	4.38 mg/L	4 mg/L	109	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0217 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
		Silicon, total	7440-21-3	E420	9.45 mg/L	10 mg/L	94.5	70.0	130	----
		Silver, total	7440-22-4	E420	0.00422 mg/L	0.004 mg/L	105	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	21.6 mg/L	20 mg/L	108	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00422 mg/L	0.004 mg/L	106	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Tin, total	7440-31-5	E420	0.0200 mg/L	0.02 mg/L	100	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0199 mg/L	0.02 mg/L	99.4	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00435 mg/L	0.004 mg/L	109	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Zinc, total	7440-66-6	E420	0.425 mg/L	0.4 mg/L	106	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
Total Metals (QCLot: 1711202)										
WP2424051-006	PL-03B	Chromium, total	7440-47-3	E420.Cr-L	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
Total Metals (QCLot: 1711203)										
WP2424051-006	PL-03B	Phosphorus, total	7723-14-0	E420.P-L	10.2 mg/L	10 mg/L	102	70.0	130	----
Total Metals (QCLot: 1713186)										
WP2423878-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000956 mg/L	0 mg/L	95.6	70.0	130	----
Dissolved Metals (QCLot: 1713189)										
WP2423969-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000918 mg/L	0 mg/L	91.8	70.0	130	----
Dissolved Metals (QCLot: 1713526)										
WP2423836-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0219 mg/L	0.02 mg/L	109	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1713526) - continued										
WP2423836-001	Anonymous	Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00971 mg/L	0.01 mg/L	97.1	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00429 mg/L	0.004 mg/L	107	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0111 mg/L	0.01 mg/L	111	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.04 mg/L	2 mg/L	102	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.24 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0491 mg/L	0.04 mg/L	123	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.79 mg/L	10 mg/L	87.9	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00394 mg/L	0.004 mg/L	98.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.414 mg/L	0.4 mg/L	104	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] If received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time R
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	Ana
Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer Sampler: EM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field	Field	Field
	PL-01	8-Oct-24	10:00	Water	10		X		7.44	7.66	88
	PL-01B	8-Oct-24	14:40	Water	10		X		6.82	7.71	88
	PL-02	8-Oct-24	13:50	Water	10		X		7.75	8.37	97
	PL-02B	8-Oct-24	14:15	Water	10		X		7.03	6.71	94
	PL-03	8-Oct-24	13:05	Water	10		X		7.84	10.79	95
	PL-03B	8-Oct-24	13:35	Water	10		X		7	9.66	87
	PL-04	8-Oct-24	12:05	Water	10		X		7.71	10.3	89
	PL-04B	8-Oct-24	12:35	Water	10		X		6.86	9.9	87
	PL-05	8-Oct-24	11:05	Water	10		X		7.32	9	87
	PL-05B	8-Oct-24	11:35	Water	10		X		7	9.47	87

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Oct 9 2024	Time:	Received by: AK	Date: Oct 10	Time: 9:54	Received by: ##	Time: 9:54

15.5°

Telephone : +1 204 256 9720

WP24240S1
Work Order Reference

Environmental Division
Winnipeg

Sample Intake

Client: Kinross - Great Bear					COC receipt info complete	☐
Express TAT?	(no)	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: (7 days)	3 days	4 days
Matrix	(Wate)	Soil/solid	Air	Biota	Food/micro	Other
Total number of bottles/fractions:	100					
Green/white	20 x 500		Orange/black			
Purple/white	20 x 125		Dark blue/white			
Red/white	20 x 100		Black/white			
Dark green/white	10 x 80		Brown/white			
Grey/white			Pink/white			
Yellow/black	20 x 60		Beige/white			
Light blue/white			Other (specify)	10 x 125 plastic/white		

Comments:

15.5°; NO ice

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2424079**		
Client	:	**Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	:	Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	807 630 0203	Telephone	: +1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	: 11-Oct-2024 09:42
PO	:	PPR-022-3	Date Analysis Commenced	: 11-Oct-2024
C-O-C number	:	----	Issue Date	: 22-Oct-2024 15:50
Sampler	:	----		
Site	:	----		
Quote number	:	2024 Standing offer		
No. of samples received	:	3		
No. of samples analysed	:	3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
RRV	Reported result verified by repeat analysis.

Analytical Results

Sub-Matrix: Water (Matrix: Water)				Client sample ID	SW-14	SW-14B	SW-12B	----	----
				Client sampling date / time	09-Oct-2024 15:10	09-Oct-2024 15:10	09-Oct-2024 15:10	----	----
Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	WP2424079-001	WP2424079-002	WP2424079-003	----	----
					Result	Result	Result	----	----
Field Tests									
pH, field	----	EF001/WP	0.10	pH units	7.83	7.78	6.57	----	----
Temperature, field	----	EF001/WP	0.10	°C	9.50	9.60	7.10	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L	<2.0	<2.0	6.5	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L	36.2	35.5	39.9	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L	<1.0	<1.0	<1.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L	36.2	35.5	39.9	----	----
Conductivity	----	E100/WP	1.0	µS/cm	94.0	93.7	96.6	----	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L	41.0	40.6	50.9	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L	40.4	41.7	52.6	----	----
pH	----	E108/WP	0.10	pH units	7.55	7.50	7.09	----	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L	96.9	97.9	116	----	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L	4.7	4.8	3.5	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L	0.0148	0.0178	0.0284	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L	5.05	5.03	2.84	----	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L	<0.0050	<0.0050	<0.0050	----	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	<0.0051	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	SW-14	SW-14B	SW-12B	----	----
Client sample ID									
Client sampling date / time					09-Oct-2024 15:10	09-Oct-2024 15:10	09-Oct-2024 15:10	----	----
					WP2424079-001	WP2424079-002	WP2424079-003	----	----
					Result	Result	Result	----	----
Anions and Nutrients									
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0208	0.0232	0.0203	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.62	0.58	<0.30	----	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	0.0012	<0.0010	0.0015	----	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	0.0011	----	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	23.3	22.9	35.6	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	0.0481	0.0556	0.0945	----	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L	0.000068	0.000075	0.000078	----	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L	0.00233	0.00231	0.00288	----	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L	0.0102	0.0103	0.00997	----	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L	0.0000084	0.000011	0.000015	----	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L	0.0000014	0.0000014	0.00000093	----	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L	0.0085	0.0081	0.0056	----	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L	0.0000028	0.0000028	0.0000089	----	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L	9.60	9.95	13.0	----	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L	0.0000042	0.0000056	0.0000038	----	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L	0.00021	0.00025	0.00051	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-14	SW-14B	SW-12B	----	----
					Client sampling date / time	09-Oct-2024 15:10	09-Oct-2024 15:10	09-Oct-2024 15:10	----	----
						WP2424079-001	WP2424079-002	WP2424079-003	----	----
						Result	Result	Result	----	----
Total Metals										
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000053	0.000087	0.00019	----	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00055	0.00057	0.00056	----	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.126	0.135	0.316	----	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000078	0.000088	0.000054	----	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0010	0.0010	0.00082	----	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.98	4.10	4.88	----	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0182	0.0182	0.0168	----	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000137	0.000154	0.000132	----	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00047	0.00051	0.00109	----	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		1.01	1.03	0.694	----	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00120	0.00126	0.00103	----	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000176	0.000076	0.000128	----	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.68	0.70	3.91	----	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	0.0000011	Not Detected	----	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		4.32	4.64	3.31	----	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0251	0.0265	0.0324	----	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.40	0.39	0.32	----	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000017	0.0000012	0.0000020	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-14	SW-14B	SW-12B	----	----
					Client sampling date / time	09-Oct-2024 15:10	09-Oct-2024 15:10	09-Oct-2024 15:10	----	----
						WP2424079-001	WP2424079-002	WP2424079-003	----	----
						Result	Result	Result	----	----
Total Metals										
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		0.000014	0.000016	0.000046	----	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	0.000012	----	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00147	0.00158	0.00218	----	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000053	0.000060	0.000059	----	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00043	0.00047	0.00045	----	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.00099	0.0011	0.0013	----	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		0.00016	0.00018	0.00030	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0208	0.0176	0.0740	----	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000060	0.000051	0.000063	----	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00201	0.00205	0.00277	----	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00914	0.00908	0.00925	----	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.000014	0.0000081	0.000010	----	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	----	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0098	0.0079	0.0053	----	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		0.0000014	0.00000092	0.0000038	----	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.91	9.96	12.9	----	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000019	Not Detected	0.0000010	----	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		0.00015	0.00018	0.00040	----	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000022	0.000023	0.000092	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-14	SW-14B	SW-12B	----	----
					Client sampling date / time	09-Oct-2024 15:10	09-Oct-2024 15:10	09-Oct-2024 15:10	----	----
						WP2424079-001	WP2424079-002	WP2424079-003	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00046	0.00068	0.00047	----	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.051	0.048	0.233	----	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000015	0.000011	0.000019	----	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0021	0.0023	0.0023 RRV	----	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.95	3.81	4.55	----	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00069	0.00044	0.00779	----	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	----	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000164	0.000147	0.000120	----	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00041	0.00037	0.00093	----	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	----	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		1.01	1.00	0.742	----	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00117	0.00108	0.00103	----	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000160	0.000082	0.000105	----	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.606	0.614	3.76	----	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		4.35	4.38	3.29	----	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0259	0.0251	0.0322	----	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.48	0.50	0.54	----	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	----	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000019	0.0000022	0.0000024	----	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000026	0.000021	0.000062	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-14	SW-14B	SW-12B	----	----
					Client sampling date / time	09-Oct-2024 15:10	09-Oct-2024 15:10	09-Oct-2024 15:10	----	----
						WP2424079-001	WP2424079-002	WP2424079-003	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.000060	Not Detected	0.00099	----	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	----	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000054	0.000047	0.000055	----	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00023	0.00024	0.00034	----	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00047	0.00051	0.0011	----	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00019	0.00019	0.00033	----	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	----	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2424079**	Page	: 1 of 19
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Oct-2024 09:42
PO	: PPR-022-3	Issue Date	: 22-Oct-2024 15:29
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Dissolved Metals	Anonymous	Anonymous	Titanium, dissolved	7440-32-6	E421	40.2 % DUP-H	20%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	Description
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-12B	E298	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	16-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14	E298	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	16-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-14B	E298	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	16-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-12B	E235.Cl-L	09-Oct-2024	11-Oct-2024	28 days	2 days	✓	11-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-14	E235.Cl-L	09-Oct-2024	11-Oct-2024	28 days	2 days	✓	11-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-14B	E235.Cl-L	09-Oct-2024	11-Oct-2024	28 days	2 days	✓	11-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-12B	E235.NO3-L	09-Oct-2024	11-Oct-2024	3 days	2 days	✓	11-Oct-2024	3 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-14	E235.NO3-L	09-Oct-2024	11-Oct-2024	3 days	2 days	✓	11-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE SW-14B	E235.NO3-L	09-Oct-2024	11-Oct-2024	3 days	2 days	✓	11-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-12B	E235.NO2-L	09-Oct-2024	11-Oct-2024	3 days	2 days	✓	11-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-14	E235.NO2-L	09-Oct-2024	11-Oct-2024	3 days	2 days	✓	11-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE SW-14B	E235.NO2-L	09-Oct-2024	11-Oct-2024	3 days	2 days	✓	11-Oct-2024	3 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-12B	E235.SO4	09-Oct-2024	11-Oct-2024	28 days	2 days	✓	11-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-14	E235.SO4	09-Oct-2024	11-Oct-2024	28 days	2 days	✓	11-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE SW-14B	E235.SO4	09-Oct-2024	11-Oct-2024	28 days	2 days	✓	11-Oct-2024	28 days	2 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-12B	E372-U	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	17-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-14	E372-U	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	17-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-14B	E372-U	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	17-Oct-2024	28 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-12B	E339-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-14	E339-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-14B	E339-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-12B	E333-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-14	E333-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-14B	E333-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-12B	E336-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-14	E336-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-14B	E336-L	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-12B	E421.Cr-L	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-14	E421.Cr-L	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) SW-14B	E421.Cr-L	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-12B	E509	09-Oct-2024	18-Oct-2024	28 days	9 days	✓	18-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-14	E509	09-Oct-2024	18-Oct-2024	28 days	9 days	✓	18-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-14B	E509	09-Oct-2024	18-Oct-2024	28 days	9 days	✓	18-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-12B	E421	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-14	E421	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-14B	E421	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-12B	E421.P-L	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-14	E421.P-L	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-14B	E421.P-L	09-Oct-2024	18-Oct-2024	180 days	9 days	✓	18-Oct-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-12B	EF001	09-Oct-2024	----	----	----		21-Oct-2024	----	12 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-14	EF001	09-Oct-2024	----	----	----		21-Oct-2024	----	12 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Amber glass (hydrochloric acid) SW-14B	EF001	09-Oct-2024	----	----	----		21-Oct-2024	----	12 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-12B	E358-L	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	16-Oct-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-14	E358-L	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	16-Oct-2024	28 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-14B	E358-L	09-Oct-2024	16-Oct-2024	28 days	7 days	✓	16-Oct-2024	28 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-12B	E283	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-14	E283	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-14B	E283	09-Oct-2024	17-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-12B	E290	09-Oct-2024	15-Oct-2024	14 days	6 days	✓	15-Oct-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-14	E290	09-Oct-2024	15-Oct-2024	14 days	6 days	✓	15-Oct-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-14B	E290	09-Oct-2024	15-Oct-2024	14 days	6 days	✓	15-Oct-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-12B	E100	09-Oct-2024	15-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-14	E100	09-Oct-2024	15-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-14B	E100	09-Oct-2024	15-Oct-2024	28 days	6 days	✓	15-Oct-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE SW-12B	E108	09-Oct-2024	15-Oct-2024	0.25 hrs	152 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	152 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-14	E108	09-Oct-2024	15-Oct-2024	0.25 hrs	152 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	152 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-14B	E108	09-Oct-2024	15-Oct-2024	0.25 hrs	152 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	152 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-12B	E162-L	09-Oct-2024	----	----	----		16-Oct-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-14	E162-L	09-Oct-2024	----	----	----		16-Oct-2024	7 days	7 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-14B	E162-L	09-Oct-2024	----	----	----		16-Oct-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-12B	E160-L	09-Oct-2024	----	----	----		16-Oct-2024	7 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14	E160-L	09-Oct-2024	----	----	----		16-Oct-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB] SW-14B	E160-L	09-Oct-2024	----	----	----		16-Oct-2024	7 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-12B	E420.Cr-L	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14	E420.Cr-L	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-14B	E420.Cr-L	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-12B	E508	09-Oct-2024	18-Oct-2024	28 days	9 days	✓	18-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14	E508	09-Oct-2024	18-Oct-2024	28 days	9 days	✓	18-Oct-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-14B	E508	09-Oct-2024	18-Oct-2024	28 days	9 days	✓	18-Oct-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-12B	E420	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14	E420	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-14B	E420	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-12B	E420.P-L	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14	E420.P-L	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-14B	E420.P-L	09-Oct-2024	17-Oct-2024	180 days	8 days	✓	17-Oct-2024	180 days	8 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1713003	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1710985	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1710567	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705905	1	9	11.1	5.0	✓
Conductivity in Water	E100	1710984	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1716174	0	4	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1715883	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1716172	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1711608	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1716173	0	11	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1713110	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705903	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705904	1	9	11.1	5.0	✓
pH by Meter	E108	1710983	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1705902	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713905	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1713661	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1713111	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1713659	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712944	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1713660	0	14	0.0	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1709605	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713109	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1713003	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1710985	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1710567	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705905	1	9	11.1	5.0	✓
Conductivity in Water	E100	1710984	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1716174	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1715883	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1716172	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1711608	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1716173	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1713110	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705903	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705904	1	9	11.1	5.0	✓
pH by Meter	E108	1710983	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1705902	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713905	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1713661	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1713111	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1713659	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712944	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1713660	1	14	7.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1709605	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713109	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1713003	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1710985	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1710567	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705905	1	9	11.1	5.0	✓
Conductivity in Water	E100	1710984	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1716174	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1715883	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1716172	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1711608	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1716173	1	11	9.0	5.0	✓
Free Cyanide (Low Level)	E339-L	1713110	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705903	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705904	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1705902	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713905	2	35	5.7	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1713661	1	7	14.2	5.0	✓
Total Cyanide (Low Level)	E333-L	1713111	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1713659	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712944	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1713660	1	14	7.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1709605	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713109	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1710567	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1705905	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1716174	0	4	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1715883	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1716172	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1711608	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1716173	0	11	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1713110	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705903	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705904	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1705902	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1713661	0	7	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1713111	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1713659	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712944	2	39	5.1	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1713660	0	14	0.0	5.0	✗
WAD Cyanide (Low Level)	E336-L	1713109	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2424079**	Page	: 1 of 16
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Oct-2024 09:42
PO	: PPR-022-3	Date Analysis Commenced	: 11-Oct-2024
C-O-C number	: ----	Issue Date	: 22-Oct-2024 15:33
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1709605)											
WP2424059-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.4	5.6	0.1	Diff <2x LOR	----
Physical Tests (QC Lot: 1710983)											
WP2424059-001	Anonymous	pH	----	E108	0.10	pH units	7.46	7.43	0.403%	4%	----
Physical Tests (QC Lot: 1710984)											
WP2424059-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	437	435	0.459%	10%	----
Physical Tests (QC Lot: 1710985)											
WP2424059-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	37.1	37.4	0.805%	20%	----
Physical Tests (QC Lot: 1713003)											
WP2424059-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.2	2.9	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1713905)											
WP2424051-004	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	85.9	91.5	5.7	Diff <2x LOR	----
Physical Tests (QC Lot: 1713906)											
WP2424079-003	SW-12B	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	116	119	2.55%	20%	----
Anions and Nutrients (QC Lot: 1705902)											
WP2424081-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	20.8	20.7	0.415%	20%	----
Anions and Nutrients (QC Lot: 1705903)											
WP2424081-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1705904)											
WP2424081-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1705905)											
WP2424081-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	4.24	4.21	0.935%	20%	----
Anions and Nutrients (QC Lot: 1710567)											
WP2424081-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0534	0.0642	18.5%	20%	----
Anions and Nutrients (QC Lot: 1712944)											
WP2424051-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0256	0.0246	4.11%	20%	----
Anions and Nutrients (QC Lot: 1712947)											
WP2424079-003	SW-12B	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0203	0.0204	0.196%	20%	----
Cyanides (QC Lot: 1713109)											
WP2424059-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1713110)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Cyanides (QC Lot: 1713110) - continued											
WP2424059-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1713111)											
WP2424059-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1711608)											
WP2423669-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.8	10.9	0.415%	20%	----
Total Metals (QC Lot: 1713659)											
WP2424024-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0263	0.0259	0.0004	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00036	0.00035	0.00002	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00066	0.00065	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0170	0.0167	2.11%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.088	0.091	0.003	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000087	0.0000119	0.0000032	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	53.1	53.6	1.09%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000014	0.000012	0.000002	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00017	0.00016	0.00001	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.608	0.596	1.95%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.044	0.043	0.0003	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.187	0.188	0.211%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0519	0.0532	2.57%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	13.8	13.0	6.35%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00343	0.00330	3.94%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00404	0.00385	4.69%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00202	0.00189	0.00013	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	11.4	10.8	5.41%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00282	0.00283	0.150%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000253	0.000336	0.000083	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.32	4.32	0.107%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	53.8	51.5	4.23%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.188	0.183	2.92%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	71.1	71.0	0.195%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1713659) - continued											
WP2424024-001	Anonymous	Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000013	0.000012	0.000001	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000063	0.000064	0.000001	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00162	0.00159	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0469	0.0461	1.80%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1715882)											
WP2423859-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1715883)											
WP2424068-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	81.3 µg/L	0.0540	40.2%	20%	DUP-H

Qualifiers

Qualifier	*Description*
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1709605)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1710984)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1710985)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1713003)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1713905)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Physical Tests (QCLot: 1713906)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1705902)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1705903)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1705904)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1705905)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1710567)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1712944)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1712947)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1713109)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1713110)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1713111)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1711608)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1711608) - continued						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1713659)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1713659) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1713660)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1713661)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1715882)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1715883)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1716172)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1716172) - continued						
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1716173)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1716174)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1709605)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	98.3	85.0	115	----
Physical Tests (QCLot: 1710983)									
pH	----	E108	----	pH units	7 pH units	99.8	98.0	102	----
Physical Tests (QCLot: 1710984)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.8	90.0	110	----
Physical Tests (QCLot: 1710985)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1713003)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1713905)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	99.2	85.0	115	----
Physical Tests (QCLot: 1713906)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.9	85.0	115	----
Anions and Nutrients (QCLot: 1705902)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1705903)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1705904)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1705905)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1710567)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.9	85.0	115	----
Anions and Nutrients (QCLot: 1712944)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.2	80.0	120	----
Anions and Nutrients (QCLot: 1712947)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.0	80.0	120	----
Cyanides (QCLot: 1713109)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	94.7	80.0	120	----
Cyanides (QCLot: 1713110)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1713110) - continued									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.7	80.0	120	----
Cyanides (QCLot: 1713111)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	88.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1711608)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Total Metals (QCLot: 1713659)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	100	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.2	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.0	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	97.5	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	96.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	96.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.9	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	93.3	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.0	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.7	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.2	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	93.9	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.4	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.3	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	97.2	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.7	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	95.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	93.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1713659) - continued									
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.5	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	95.7	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.3	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	100	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.3	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.8	80.0	120	----
Total Metals (QCLot: 1713660)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Total Metals (QCLot: 1713661)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.7	80.0	120	----
Total Metals (QCLot: 1715882)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.7	80.0	120	----
Dissolved Metals (QCLot: 1716172)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	95.3	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	92.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	92.8	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.0	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	94.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	100.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	95.7	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	90.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	93.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	92.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.1	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.2	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	99.1	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	95.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	94.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1716172) - continued									
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.6	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	94.7	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	91.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	94.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	89.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	91.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	83.1	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.2	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	91.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	90.2	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	95.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	93.8	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	89.9	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	89.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.3	80.0	120	----
Dissolved Metals (QCLot: 1716174)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	93.8	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1705902)										
WP2424081-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.5 mg/L	100 mg/L	98.5	75.0	125	----
Anions and Nutrients (QCLot: 1705903)										
WP2424081-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1705904)										
WP2424081-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.497 mg/L	0.5 mg/L	99.4	75.0	125	----
Anions and Nutrients (QCLot: 1705905)										
WP2424081-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1710567)										
WP2424081-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0828 mg/L	0.1 mg/L	82.8	75.0	125	----
Anions and Nutrients (QCLot: 1712944)										
WP2424051-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.236 mg/L	0.25 mg/L	94.3	70.0	130	----
Anions and Nutrients (QCLot: 1712947)										
WP2424082-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.231 mg/L	0.25 mg/L	92.5	70.0	130	----
Cyanides (QCLot: 1713109)										
WP2424059-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.119 mg/L	0.125 mg/L	95.4	75.0	125	----
Cyanides (QCLot: 1713110)										
WP2424059-001	Anonymous	Cyanide, free	----	E339-L	0.123 mg/L	0.125 mg/L	98.4	75.0	125	----
Cyanides (QCLot: 1713111)										
WP2424059-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.212 mg/L	0.25 mg/L	85.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1711608)										
WP2423687-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1713659)										
WP2424024-001	Anonymous	Aluminum, total	7429-90-5	E420	0.229 mg/L	0.2 mg/L	115	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0446 mg/L	0.04 mg/L	111	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Boron, total	7440-42-8	E420	0.120 mg/L	0.1 mg/L	120	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00449 mg/L	0.004 mg/L	112	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0230 mg/L	0.02 mg/L	115	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1713659) - continued										
WP2424024-001	Anonymous	Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.18 mg/L	2 mg/L	109	70.0	130	----
		Lead, total	7439-92-1	E420	ND mg/L	----	ND	70.0	130	----
		Lithium, total	7439-93-2	E420	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0478 mg/L	0.04 mg/L	120	70.0	130	----
		Silicon, total	7440-21-3	E420	9.75 mg/L	10 mg/L	97.5	70.0	130	----
		Silver, total	7440-22-4	E420	0.00413 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Tin, total	7440-31-5	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00437 mg/L	0.004 mg/L	109	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.116 mg/L	0.1 mg/L	116	70.0	130	----
		Zinc, total	7440-66-6	E420	0.422 mg/L	0.4 mg/L	106	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0430 mg/L	0.04 mg/L	108	70.0	130	----
Total Metals (QCLot: 1715882)										
WP2423859-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000871 mg/L	0 mg/L	87.1	70.0	130	----
Dissolved Metals (QCLot: 1715883)										
WP2424068-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000940 mg/L	0 mg/L	94.0	70.0	130	----
Dissolved Metals (QCLot: 1716172)										
WP2423669-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	ND mg/L	----	ND	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0229 mg/L	0.02 mg/L	114	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0444 mg/L	0.04 mg/L	111	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00444 mg/L	0.004 mg/L	111	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1716172) - continued										
WP2423669-002	Anonymous	Iron, dissolved	7439-89-6	E421	2.36 mg/L	2 mg/L	118	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.116 mg/L	0.1 mg/L	116	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0426 mg/L	0.04 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.39 mg/L	4 mg/L	110	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0469 mg/L	0.04 mg/L	117	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	22.2 mg/L	20 mg/L	111	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0448 mg/L	0.04 mg/L	112	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00418 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	ND mg/L	----	ND	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00420 mg/L	0.004 mg/L	105	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.449 mg/L	0.4 mg/L	112	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: EM	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-14	9-Oct-24	15:10	Water	10		X		7.83	9.5	74.6
	SW-14-B	9-Oct-24	15:15	Water	10		X		7.78	9.6	74.1
	SW-12b	9-Oct-24	14:45	Water	10		X		6.57	7.1	73.6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL S
Released by: CB	Oct 9 2024	Time: 9:00	Received by: AK	Date: OCT 11 2024	Time: 9:42	Received

16°

Environmental Division
Winnipeg
Work Order Reference
WP2424079

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross					**COC receipt info complete** ☐	
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other
Total number of bottles/fractions:	50					
Green/white	6X500		Orange/black			
Purple/white	6X125		Dark blue/white			
Red/white	6X100		Black/white			
Dark green/white	3X80		Brown/white			
Grey/white			Pink/white			
Yellow/black	6X60		Beige/white			
Light blue/white			Other (specify)		3X125 (Plastic)	

Comments:

16°; NO ice

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2424082**		
Client	:	**Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	:	Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	----	Telephone	: +1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	: 11-Oct-2024 12:50
PO	:	PPR-022-3	Date Analysis Commenced	: 11-Oct-2024
C-O-C number	:	----	Issue Date	: 23-Oct-2024 11:53
Sampler	:	----		
Site	:	----		
Quote number	:	2024 Standing offer		
No. of samples received	:	5		
No. of samples analysed	:	5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
RRV	Reported result verified by repeat analysis.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-10	SW-DUP-04	SW-BLANK-04
					Client sampling date / time	10-Oct-2024 14:00	10-Oct-2024 14:20	10-Oct-2024 11:45	10-Oct-2024 12:00	10-Oct-2024 12:05
						WP2424082-001	WP2424082-002	WP2424082-003	WP2424082-004	WP2424082-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.31	6.92	6.15	6.15	----
Temperature, field	----	EF001/WP	0.10	°C		9.45	9.06	4.14	4.14	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	<2.0	4.8	5.2	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		32.6	33.0	59.7	59.6	<1.0
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		32.6	33.0	59.7	59.6	<1.0
Conductivity	----	E100/WP	1.0	µS/cm		68.0	67.6	121	122	Not Detected
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		31.9	32.8	68.3	70.4	<0.50
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		33.0	33.4	71.5	72.4	<0.50
pH	----	E108/WP	0.10	pH units		7.52	7.49	7.31	7.32	5.31
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		55.5	58.9	142	139	3.5
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		3.3	3.6	5.3	5.5	<1.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0235	0.0164	0.0292	0.0236	<0.0050
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.001	mg/L		----	----	----	----	NR
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.19	0.18	0.27	0.27	Not Detected
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		<0.0050	<0.0050	0.0055	0.0059	<0.0050

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Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	SW-GL	SW-GL-B	SW-10	SW-DUP-04	SW-BLANK-04
Client sample ID									
Client sampling date / time					10-Oct-2024 14:00	10-Oct-2024 14:20	10-Oct-2024 11:45	10-Oct-2024 12:00	10-Oct-2024 12:05
					WP2424082-001	WP2424082-002	WP2424082-003	WP2424082-004	WP2424082-005
					Result	Result	Result	Result	Result
Anions and Nutrients									
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L	<0.0051	<0.0051	0.0055	0.0059	<0.0051
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0269	0.0221	0.0231	0.0214	0.0011
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.60	0.60	0.48	0.48	<0.30
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	0.0011	0.0012	<0.0010
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	0.0010	<0.0010
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	10.9	11.0	36.8	37.5	<0.50
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	0.0113	0.0188	0.180	0.203	0.00078
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L	0.000058	0.000059	0.000060	0.000059	0.000016
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L	0.00273	0.00274	0.00258	0.00253	0.000036
Barium, total	7440-39-3	E420/WP	0.00010	mg/L	0.00760	0.00784	0.0129	0.0129	Not Detected
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L	0.0000056	0.0000040	0.000019	0.000014	Not Detected
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L	0.0000014	0.0000012	0.0000026	0.0000033	Not Detected
Boron, total	7440-42-8	E420/WP	0.010	mg/L	0.0058	0.0047	0.0051	0.0050	0.0026
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L	Not Detected	Not Detected	0.0000044	0.0000034	Not Detected
Calcium, total	7440-70-2	E420/WP	0.050	mg/L	9.38	9.50	18.5	18.6	Not Detected
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L	0.0000058	0.0000063	0.000016	0.000015	Not Detected

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-10	SW-DUP-04	SW-BLANK-04
					Client sampling date / time	10-Oct-2024 14:00	10-Oct-2024 14:20	10-Oct-2024 11:45	10-Oct-2024 12:00	10-Oct-2024 12:05
						WP2424082-001	WP2424082-002	WP2424082-003	WP2424082-004	WP2424082-005
						Result	Result	Result	Result	Result
Total Metals										
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L		<0.00010	0.00010	0.00067	0.00068	<0.00010
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.000027	0.000029	0.00018	0.00019	Not Detected
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00021	0.00025	0.00067	0.00071	Not Detected
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.250	0.262	0.586	0.600	Not Detected
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000024	0.000046	0.000104	0.000102	Not Detected
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.00077	0.00090	0.0026	0.0024	0.00024
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		2.32	2.35	6.15	6.31	Not Detected
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0225	0.0259	0.0210	0.0208	Not Detected
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000107	0.000106	0.000390	0.000437	Not Detected
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00015	0.00016	0.00123	0.00120	Not Detected
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.036	<0.030	<0.030	<0.030
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.684	0.687	1.30	1.32	Not Detected
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00187	0.00196	0.00180	0.00177	Not Detected
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000073	0.000230	0.000050	0.000121	0.000017
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		0.93	0.87	5.14	5.37	0.041
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.25	1.22	2.21	2.24	Not Detected
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0218	0.0212	0.0384	0.0364	Not Detected
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.47	0.40	0.50	0.46	Not Detected
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		0.000028	Not Detected	Not Detected	Not Detected	Not Detected

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-10	SW-DUP-04	SW-BLANK-04
					Client sampling date / time	10-Oct-2024 14:00	10-Oct-2024 14:20	10-Oct-2024 11:45	10-Oct-2024 12:00	10-Oct-2024 12:05
						WP2424082-001	WP2424082-002	WP2424082-003	WP2424082-004	WP2424082-005
						Result	Result	Result	Result	Result
Total Metals										
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		0.0000010	0.0000012	0.0000034	0.0000038	Not Detected
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L		Not Detected	Not Detected	0.000086	0.000077	Not Detected
Tin, total	7440-31-5	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L		0.00030	0.00066	0.00627	0.00771	Not Detected
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L		0.000040	0.000043	0.000155	0.000162	Not Detected
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L		0.00027	0.00029	0.00071	0.00072	0.00014
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L		0.00033	0.00045	0.0014	0.0021	Not Detected
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L		Not Detected	Not Detected	0.00047	0.00046	Not Detected
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L		0.0029	0.0026	0.0926	0.108	0.00017
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L		0.000041	0.000059	0.000064	0.000073	Not Detected
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L		0.00213	0.00224	0.00246	0.00261	Not Detected
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L		0.00666	0.00701	0.0119	0.0128	Not Detected
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L		0.0000031	Not Detected	0.000017	0.000022	Not Detected
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L		0.0050	0.0061	0.0052	0.0050	0.0016
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L		Not Detected	Not Detected	0.0000015	0.0000068	0.0000017
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L		9.08	9.46	17.9	18.4	0.0063
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L		0.0000042	0.0000058	Not Detected	0.0000018	Not Detected

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-10	SW-DUP-04	SW-BLANK-04
					Client sampling date / time	10-Oct-2024 14:00	10-Oct-2024 14:20	10-Oct-2024 11:45	10-Oct-2024 12:00	10-Oct-2024 12:05
						WP2424082-001	WP2424082-002	WP2424082-003	WP2424082-004	WP2424082-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L		<0.00010	<0.00010	0.00046	0.00047	<0.00010
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L		0.000014	Not Detected	0.00010	0.00014	0.0000060
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00022	0.00014	0.00055	0.00090	Not Detected
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.125	0.129	0.411	0.436	Not Detected
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.0000055	0.0000078	0.000059	0.000098	Not Detected
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.0016	0.0014	0.0032	0.0033	0.00026
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		2.24	2.24	5.74	5.93	0.0066
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00196	0.00327	0.0179	0.0188	0.000017
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000110	0.000111	0.000388	0.000452	Not Detected
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00012	0.000080	0.00101	0.00120	Not Detected
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	<0.030
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.656	0.664	1.32	1.35	Not Detected
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00171	0.00182	0.00157	0.00161	Not Detected
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000060	0.000028	0.000114	0.000050	Not Detected
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		0.868	0.887	5.00	5.02	Not Detected
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	0.0000010	0.0000024	Not Detected
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.14	1.17	2.17	2.23	0.0076
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0202	0.0217	0.0384	0.0374	0.000031
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.49	0.38	0.63	0.60	0.079
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	SW-GL	SW-GL-B	SW-10	SW-DUP-04	SW-BLANK-04
					Client sampling date / time	10-Oct-2024 14:00	10-Oct-2024 14:20	10-Oct-2024 11:45	10-Oct-2024 12:00	10-Oct-2024 12:05
						WP2424082-001	WP2424082-002	WP2424082-003	WP2424082-004	WP2424082-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000017	0.0000010	0.0000019	0.0000023	Not Detected
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		Not Detected	Not Detected	0.000074	0.000076	Not Detected
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	0.00012	Not Detected
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		Not Detected	0.000076	0.00202	0.00226	Not Detected
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000038	0.000035	0.000150	0.000154	0.0000022
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.000093	0.00012	0.00046	0.00047	Not Detected
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00015	0.00019	0.0011	0.0076 RRV	0.00026
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.000021	Not Detected	0.00044	0.00043	Not Detected
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	Field
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2424082**	Page	: 1 of 25
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Oct-2024 12:50
PO	: PPR-022-3	Issue Date	: 23-Oct-2024 11:52
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Dissolved Metals	QC-MRG3-1716194001	----	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00041 mg/L B	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Duplicate (DUP) RPDs								
Dissolved Metals	Anonymous	Anonymous	Titanium, dissolved	7440-32-6	E421	40.2 % DUP-H	20%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	Description
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-10	E298	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-BLANK-04	E298	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-DUP-04	E298	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL	E298	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW-GL-B	E298	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-10	E235.Cl-L	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE SW-BLANK-04	E235.Cl-L	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-DUP-04	E235.Cl-L	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-GL	E235.Cl-L	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE										
SW-GL-B	E235.Cl-L	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-10	E235.NO3-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-BLANK-04	E235.NO3-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-DUP-04	E235.NO3-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-GL	E235.NO3-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE										
SW-GL-B	E235.NO3-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-10	E235.NO2-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-BLANK-04	E235.NO2-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-DUP-04	E235.NO2-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL	E235.NO2-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE										
SW-GL-B	E235.NO2-L	10-Oct-2024	11-Oct-2024	3 days	1 days	✓	11-Oct-2024	3 days	1 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-10	E235.SO4	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-BLANK-04	E235.SO4	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-DUP-04	E235.SO4	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-GL	E235.SO4	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE										
SW-GL-B	E235.SO4	10-Oct-2024	11-Oct-2024	28 days	1 days	✓	11-Oct-2024	28 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-10	E372-U	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	17-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-BLANK-04	E372-U	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	17-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-DUP-04	E372-U	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	17-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL	E372-U	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	17-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) SW-GL-B	E372-U	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	17-Oct-2024	28 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-10	E339-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-BLANK-04	E339-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-DUP-04	E339-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E339-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E339-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-10	E333-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-BLANK-04	E333-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-DUP-04	E333-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL	E333-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-GL-B	E333-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-10	E336-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-BLANK-04	E336-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) SW-DUP-04	E336-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL	E336-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
SW-GL-B	E336-L	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-10	E421.Cr-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-BLANK-04	E421.Cr-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-DUP-04	E421.Cr-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.Cr-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.Cr-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-BLANK-04	E509	10-Oct-2024	21-Oct-2024	28 days	11 days	✓	21-Oct-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
SW-10	E509	10-Oct-2024	18-Oct-2024	28 days	8 days	✓	18-Oct-2024	28 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-DUP-04	E509	10-Oct-2024	18-Oct-2024	28 days	8 days	✓	18-Oct-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL	E509	10-Oct-2024	18-Oct-2024	28 days	8 days	✓	18-Oct-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) SW-GL-B	E509	10-Oct-2024	18-Oct-2024	28 days	8 days	✓	18-Oct-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-10	E421	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-BLANK-04	E421	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-DUP-04	E421	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL	E421	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) SW-GL-B	E421	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) SW-10	E421.P-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-BLANK-04	E421.P-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-DUP-04	E421.P-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL	E421.P-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid)										
SW-GL-B	E421.P-L	10-Oct-2024	18-Oct-2024	180 days	8 days	✓	18-Oct-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-10	EF001	10-Oct-2024	----	----	----		21-Oct-2024	----	11 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-BLANK-04	EF001	10-Oct-2024	----	----	----		21-Oct-2024	----	11 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-DUP-04	EF001	10-Oct-2024	----	----	----		21-Oct-2024	----	11 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-GL	EF001	10-Oct-2024	----	----	----		21-Oct-2024	----	11 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE										
SW-GL-B	EF001	10-Oct-2024	----	----	----		21-Oct-2024	----	11 days	

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-10	E358-L	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-BLANK-04	E358-L	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-DUP-04	E358-L	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL	E358-L	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) SW-GL-B	E358-L	10-Oct-2024	16-Oct-2024	28 days	6 days	✓	16-Oct-2024	28 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-10	E283	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-BLANK-04	E283	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-DUP-04	E283	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Physical Tests : Acidity by Titration										
HDPE SW-GL	E283	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE SW-GL-B	E283	10-Oct-2024	17-Oct-2024	14 days	7 days	✓	17-Oct-2024	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-10	E290	10-Oct-2024	15-Oct-2024	14 days	5 days	✓	15-Oct-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-BLANK-04	E290	10-Oct-2024	15-Oct-2024	14 days	5 days	✓	15-Oct-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-DUP-04	E290	10-Oct-2024	15-Oct-2024	14 days	5 days	✓	15-Oct-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL	E290	10-Oct-2024	15-Oct-2024	14 days	5 days	✓	15-Oct-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE SW-GL-B	E290	10-Oct-2024	15-Oct-2024	14 days	5 days	✓	15-Oct-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-10	E100	10-Oct-2024	15-Oct-2024	28 days	5 days	✓	15-Oct-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-BLANK-04	E100	10-Oct-2024	15-Oct-2024	28 days	5 days	✓	15-Oct-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-DUP-04	E100	10-Oct-2024	15-Oct-2024	28 days	5 days	✓	15-Oct-2024	28 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE SW-GL	E100	10-Oct-2024	15-Oct-2024	28 days	5 days	✓	15-Oct-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE SW-GL-B	E100	10-Oct-2024	15-Oct-2024	28 days	5 days	✓	15-Oct-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE SW-GL	E108	10-Oct-2024	15-Oct-2024	0.25 hrs	129 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	129 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-GL-B	E108	10-Oct-2024	15-Oct-2024	0.25 hrs	129 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	129 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-10	E108	10-Oct-2024	15-Oct-2024	0.25 hrs	131 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	131 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-BLANK-04	E108	10-Oct-2024	15-Oct-2024	0.25 hrs	131 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	131 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE SW-DUP-04	E108	10-Oct-2024	15-Oct-2024	0.25 hrs	131 hrs	× EHTR-FM	15-Oct-2024	0.25 hrs	131 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-10	E162-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-BLANK-04	E162-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-DUP-04	E162-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL	E162-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE SW-GL-B	E162-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-10	E160-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-BLANK-04	E160-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-DUP-04	E160-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-GL	E160-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE SW-GL-B	E160-L	10-Oct-2024	----	----	----		16-Oct-2024	7 days	6 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-10	E420.Cr-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-DUP-04	E420.Cr-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL	E420.Cr-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-GL-B	E420.Cr-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) SW-BLANK-04	E420.Cr-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	18-Oct-2024	180 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-BLANK-04	E508	10-Oct-2024	21-Oct-2024	28 days	11 days	✓	21-Oct-2024	28 days	11 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-10	E508	10-Oct-2024	18-Oct-2024	28 days	8 days	✓	18-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-DUP-04	E508	10-Oct-2024	18-Oct-2024	28 days	8 days	✓	18-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL	E508	10-Oct-2024	18-Oct-2024	28 days	8 days	✓	18-Oct-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) SW-GL-B	E508	10-Oct-2024	18-Oct-2024	28 days	8 days	✓	18-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-10	E420	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-DUP-04	E420	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL	E420	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-GL-B	E420	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW-BLANK-04	E420	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	18-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-10	E420.P-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-DUP-04	E420.P-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL	E420.P-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) SW-GL-B	E420.P-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	17-Oct-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid)										
SW-BLANK-04	E420.P-L	10-Oct-2024	17-Oct-2024	180 days	7 days	✓	18-Oct-2024	180 days	8 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1713003	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1710985	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1711626	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705905	1	9	11.1	5.0	✓
Conductivity in Water	E100	1710984	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1716174	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1715883	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1716172	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1711608	2	39	5.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1716173	1	23	4.3	5.0	✗
Free Cyanide (Low Level)	E339-L	1713110	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705903	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705904	1	9	11.1	5.0	✓
pH by Meter	E108	1710983	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1705902	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713906	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1713661	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1713111	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1713659	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712947	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1713660	1	23	4.3	5.0	✗
TSS by Gravimetry (Low Level)	E160-L	1709605	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713109	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1713003	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1710985	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1711626	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705905	1	9	11.1	5.0	✓
Conductivity in Water	E100	1710984	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1716174	2	15	13.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1715883	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1716172	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1711608	2	39	5.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1716173	2	23	8.7	5.0	✓
Free Cyanide (Low Level)	E339-L	1713110	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705903	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705904	1	9	11.1	5.0	✓
pH by Meter	E108	1710983	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1705902	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713906	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1713661	2	15	13.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1713111	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1713659	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712947	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1713660	2	23	8.7	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1709605	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713109	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1713003	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1710985	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1711626	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1705905	1	9	11.1	5.0	✓
Conductivity in Water	E100	1710984	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1716174	2	15	13.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1715883	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1716172	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1711608	2	39	5.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1716173	2	23	8.7	5.0	✓
Free Cyanide (Low Level)	E339-L	1713110	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705903	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705904	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1705902	1	19	5.2	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1713906	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1713661	2	15	13.3	5.0	✓
Total Cyanide (Low Level)	E333-L	1713111	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1713659	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712947	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1713660	2	23	8.7	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1709605	1	18	5.5	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713109	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1711626	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1705905	1	9	11.1	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1716174	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1715883	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1716172	2	40	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1711608	2	39	5.1	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1716173	1	23	4.3	5.0	✗
Free Cyanide (Low Level)	E339-L	1713110	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1705903	1	9	11.1	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1705904	1	9	11.1	5.0	✓
Sulfate in Water by IC	E235.SO4	1705902	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1713661	1	15	6.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1713111	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1713659	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712947	1	20	5.0	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1713660	1	23	4.3	5.0	✗
WAD Cyanide (Low Level)	E336-L	1713109	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2424082**	Page	: 1 of 26
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Hannah Hillier	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: ----	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 11-Oct-2024 12:50
PO	: PPR-022-3	Date Analysis Commenced	: 11-Oct-2024
C-O-C number	: ----	Issue Date	: 23-Oct-2024 11:54
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1709605)											
WP2424059-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	5.4	5.6	0.1	Diff <2x LOR	----
Physical Tests (QC Lot: 1710983)											
WP2424059-001	Anonymous	pH	----	E108	0.10	pH units	7.46	7.43	0.403%	4%	----
Physical Tests (QC Lot: 1710984)											
WP2424059-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	437	435	0.459%	10%	----
Physical Tests (QC Lot: 1710985)											
WP2424059-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	37.1	37.4	0.805%	20%	----
Physical Tests (QC Lot: 1713003)											
WP2424059-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	3.2	2.9	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 1713906)											
WP2424079-003	Anonymous	Solids, total dissolved [TDS]	----	E162-L	10.0	mg/L	116	119	2.55%	20%	----
Anions and Nutrients (QC Lot: 1705902)											
WP2424081-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	20.8	20.7	0.415%	20%	----
Anions and Nutrients (QC Lot: 1705903)											
WP2424081-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1705904)											
WP2424081-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1705905)											
WP2424081-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	0.10	mg/L	4.24	4.21	0.935%	20%	----
Anions and Nutrients (QC Lot: 1711626)											
WP2424082-001	SW-GL	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0235	0.0190	0.0045	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1712947)											
WP2424079-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0203	0.0204	0.196%	20%	----
Cyanides (QC Lot: 1713109)											
WP2424059-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1713110)											
WP2424059-001	Anonymous	Cyanide, free	----	E339-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Cyanides (QC Lot: 1713111)											
WP2424059-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1711608)											
WP2423669-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	10.8	10.9	0.415%	20%	----
Organic / Inorganic Carbon (QC Lot: 1713301)											
WP2423791-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	11.3	11.5	1.99%	20%	----
Total Metals (QC Lot: 1713659)											
WP2424024-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0263	0.0259	0.0004	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00036	0.00035	0.00002	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00066	0.00065	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0170	0.0167	2.11%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.088	0.091	0.003	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000087	0.0000119	0.0000032	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	53.1	53.6	1.09%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000014	0.000012	0.000002	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00017	0.00016	0.00001	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.608	0.596	1.95%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.044	0.043	0.0003	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.187	0.188	0.211%	20%	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0519	0.0532	2.57%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	13.8	13.0	6.35%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00343	0.00330	3.94%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00404	0.00385	4.69%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00202	0.00189	0.00013	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	11.4	10.8	5.41%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00282	0.00283	0.150%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000253	0.000336	0.000083	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	4.32	4.32	0.107%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	53.8	51.5	4.23%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.188	0.183	2.92%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	71.1	71.0	0.195%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	0.000013	0.000012	0.000001	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1713659) - continued											
WP2424024-001	Anonymous	Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000063	0.000064	0.000001	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00162	0.00159	0.00002	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0469	0.0461	1.80%	20%	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1714354)											
WP2424059-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00026	0.00032	0.00006	Diff <2x LOR	----
Total Metals (QC Lot: 1714355)											
WP2424059-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Total Metals (QC Lot: 1714356)											
WP2424059-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.137	0.153	11.5%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00257	0.00278	8.08%	20%	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.0126	0.0130	2.90%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0181	0.0187	3.41%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	0.049	0.047	0.001	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	38.0	38.0	0.0204%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000014	0.000017	0.000003	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00083	0.00088	0.00005	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00256	0.00263	0.00007	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.142	0.156	9.33%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000059	0.000057	0.000002	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	0.0050	0.0049	0.0001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	5.48	5.45	0.533%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0245	0.0258	5.03%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000628	0.000634	1.06%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00223	0.00228	0.00004	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	5.26	5.64	6.94%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00525	0.00535	1.89%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000159	0.000113	0.000046	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1714356) - continued											
WP2424059-001	Anonymous	Silicon, total	7440-21-3	E420	0.10	mg/L	2.22	2.28	2.83%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	31.8	32.1	1.10%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.179	0.184	2.69%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	31.3	32.1	2.55%	20%	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00566	0.00654	14.5%	20%	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000033	0.000033	0.0000001	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00058	0.00062	0.00004	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Total Metals (QC Lot: 1715882)											
WP2423859-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Total Metals (QC Lot: 1720181)											
WP2424059-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1715883)											
WP2424068-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	81.3 µg/L	0.0540	40.2%	20%	DUP-H
Dissolved Metals (QC Lot: 1716194)											
WP2424059-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00021	0.00021	0.000003	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1716196)											
WP2424059-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	0.030	mg/L	<0.030	<0.030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1716197)											
WP2424059-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0150	0.0147	2.32%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00293	0.00299	1.94%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.0126	0.0126	0.426%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0186	0.0187	0.614%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.045	0.046	0.001	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1716197) - continued											
WP2424059-001	Anonymous	Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	39.2	38.0	3.22%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00078	0.00077	0.00001	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00231	0.00228	1.14%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.052	0.052	0.0004	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0039	0.0038	0.00007	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	5.74	5.85	1.83%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0164	0.0164	0.0129%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000672	0.000655	2.53%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00218	0.00217	0.00002	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	5.44	5.46	0.262%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00558	0.00556	0.362%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000130	0.000087	0.000043	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.10	2.12	1.36%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	33.0	32.7	1.02%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.197	0.202	2.32%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	31.7	32.1	1.22%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00043	0.00038	0.00005	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000029	0.000030	0.0000008	Diff <2x LOR	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1720182)											
WP2424059-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1709605)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1710984)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1710985)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1713003)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1713906)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1705902)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1705903)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1705904)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1705905)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1711626)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1712947)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Cyanides (QCLot: 1713109)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1713110)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1713111)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1711608)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1713301)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1713659)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1713659) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1713659) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1713660)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1713661)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1714354)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1714355)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1714356)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1714356) - continued						
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1715882)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Total Metals (QCLot: 1720181)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1715883)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1716172)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1716172) - continued						
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1716173)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1716174)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1716194)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	# 0.00041	B
Dissolved Metals (QCLot: 1716196)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1716197)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1716197) - continued						
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1720182)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Qualifiers

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1709605)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	98.3	85.0	115	----
Physical Tests (QCLot: 1710983)									
pH	----	E108	----	pH units	7 pH units	99.8	98.0	102	----
Physical Tests (QCLot: 1710984)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.8	90.0	110	----
Physical Tests (QCLot: 1710985)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1713003)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1713906)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.9	85.0	115	----
Anions and Nutrients (QCLot: 1705902)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1705903)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1705904)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1705905)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1711626)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Anions and Nutrients (QCLot: 1712947)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	94.0	80.0	120	----
Cyanides (QCLot: 1713109)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	94.7	80.0	120	----
Cyanides (QCLot: 1713110)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.7	80.0	120	----
Cyanides (QCLot: 1713111)									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	88.0	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1711608)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1713301)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.9	80.0	120	----
Total Metals (QCLot: 1713659)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	100	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	98.6	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.2	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	100	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	100	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.0	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	100	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	97.5	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	96.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	96.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.9	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	93.3	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.2	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.0	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	97.7	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	98.2	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	93.9	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	99.4	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	98.3	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	97.2	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	93.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	102	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.7	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	95.4	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	93.0	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	97.5	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	92.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	95.7	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1713659) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.3	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	100	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.3	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	97.3	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	97.8	80.0	120	----
Total Metals (QCLot: 1713660)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	104	80.0	120	----
Total Metals (QCLot: 1713661)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.7	80.0	120	----
Total Metals (QCLot: 1714354)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
Total Metals (QCLot: 1714355)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	95.1	80.0	120	----
Total Metals (QCLot: 1714356)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	94.8	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	94.0	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	93.3	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	93.9	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.0	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	94.6	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	97.5	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.1	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	95.8	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	93.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	92.7	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	109	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	94.7	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	95.3	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	94.4	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	95.1	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	93.4	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	91.7	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.6	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	94.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1714356) - continued									
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	90.8	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	95.4	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	86.9	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	92.8	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	93.9	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	94.2	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	87.5	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	93.3	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	95.4	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	92.2	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	90.6	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	95.0	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	99.2	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	93.5	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	89.3	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	89.9	80.0	120	----
Total Metals (QCLot: 1715882)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.5	80.0	120	----
Total Metals (QCLot: 1720181)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	100	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.7	80.0	120	----
Dissolved Metals (QCLot: 1716172)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	95.3	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	92.3	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	92.8	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.0	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	94.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	101	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	100.0	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	95.7	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	90.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	93.6	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	92.1	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1716172) - continued									
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	96.1	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	95.2	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	99.1	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	95.2	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	94.7	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.6	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	97.0	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	94.7	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	91.2	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	94.8	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	89.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	99.2	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	91.9	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	102	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	83.1	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	95.2	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	92.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	91.8	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	90.2	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	95.8	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	94.9	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	93.8	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	89.9	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	89.0	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	97.3	80.0	120	----
Dissolved Metals (QCLot: 1716174)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	93.8	80.0	120	----
Dissolved Metals (QCLot: 1716194)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	93.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	99.0	80.0	120	----
Dissolved Metals (QCLot: 1716197)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	96.0	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	95.0	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	91.3	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	96.6	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	96.5	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1716197) - continued									
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	95.1	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	99.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	91.0	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	95.7	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	93.2	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	94.0	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.6	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.8	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	92.5	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	93.9	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	97.3	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	94.1	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	97.0	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.3	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	91.3	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	97.7	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	85.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	94.1	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	90.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.5	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	94.2	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	91.0	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	86.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	92.3	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	89.1	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	92.2	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	92.5	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	92.0	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	93.1	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	95.0	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	90.6	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	92.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.7	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1705902)										
WP2424081-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.5 mg/L	100 mg/L	98.5	75.0	125	----
Anions and Nutrients (QCLot: 1705903)										
WP2424081-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3-L	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1705904)										
WP2424081-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2-L	0.497 mg/L	0.5 mg/L	99.4	75.0	125	----
Anions and Nutrients (QCLot: 1705905)										
WP2424081-001	Anonymous	Chloride	16887-00-6	E235.Cl-L	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1711626)										
WP2424082-001	SW-GL	Ammonia, total (as N)	7664-41-7	E298	0.0883 mg/L	0.1 mg/L	88.3	75.0	125	----
Anions and Nutrients (QCLot: 1712947)										
WP2424082-001	SW-GL	Phosphorus, total	7723-14-0	E372-U	0.231 mg/L	0.25 mg/L	92.5	70.0	130	----
Cyanides (QCLot: 1713109)										
WP2424059-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.119 mg/L	0.125 mg/L	95.4	75.0	125	----
Cyanides (QCLot: 1713110)										
WP2424059-001	Anonymous	Cyanide, free	----	E339-L	0.123 mg/L	0.125 mg/L	98.4	75.0	125	----
Cyanides (QCLot: 1713111)										
WP2424059-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.212 mg/L	0.25 mg/L	85.0	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1711608)										
WP2423687-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1713301)										
WP2423662-009	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1713659)										
WP2424024-001	Anonymous	Aluminum, total	7429-90-5	E420	0.229 mg/L	0.2 mg/L	115	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Barium, total	7440-39-3	E420	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0446 mg/L	0.04 mg/L	111	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Boron, total	7440-42-8	E420	0.120 mg/L	0.1 mg/L	120	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00449 mg/L	0.004 mg/L	112	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0230 mg/L	0.02 mg/L	115	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1713659) - continued										
WP2424024-001	Anonymous	Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	2.18 mg/L	2 mg/L	109	70.0	130	----
		Lead, total	7439-92-1	E420	ND mg/L	----	ND	70.0	130	----
		Lithium, total	7439-93-2	E420	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0218 mg/L	0.02 mg/L	109	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0449 mg/L	0.04 mg/L	112	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0226 mg/L	0.02 mg/L	113	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0478 mg/L	0.04 mg/L	120	70.0	130	----
		Silicon, total	7440-21-3	E420	9.75 mg/L	10 mg/L	97.5	70.0	130	----
		Silver, total	7440-22-4	E420	0.00413 mg/L	0.004 mg/L	103	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0426 mg/L	0.04 mg/L	106	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00412 mg/L	0.004 mg/L	103	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Tin, total	7440-31-5	E420	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00437 mg/L	0.004 mg/L	109	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.116 mg/L	0.1 mg/L	116	70.0	130	----
		Zinc, total	7440-66-6	E420	0.422 mg/L	0.4 mg/L	106	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0430 mg/L	0.04 mg/L	108	70.0	130	----
Total Metals (QCLot: 1714354)										
WP2424059-001	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0446 mg/L	0.04 mg/L	112	70.0	130	----
Total Metals (QCLot: 1714355)										
WP2424059-001	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	11.3 mg/L	10 mg/L	113	70.0	130	----
Total Metals (QCLot: 1714356)										
WP2424059-001	Anonymous	Aluminum, total	7429-90-5	E420	0.229 mg/L	0.2 mg/L	114	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Barium, total	7440-39-3	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0104 mg/L	0.01 mg/L	104	70.0	130	----
		Boron, total	7440-42-8	E420	0.100 mg/L	0.1 mg/L	100	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00436 mg/L	0.004 mg/L	109	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.0112 mg/L	0.01 mg/L	112	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0213 mg/L	0.02 mg/L	106	70.0	130	----
		Copper, total	7440-50-8	E420	0.0212 mg/L	0.02 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1714356) - continued										
WP2424059-001	Anonymous	Iron, total	7439-89-6	E420	2.18 mg/L	2 mg/L	109	70.0	130	----
		Lead, total	7439-92-1	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Lithium, total	7439-93-2	E420	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0469 mg/L	0.04 mg/L	117	70.0	130	----
		Silicon, total	7440-21-3	E420	10.2 mg/L	10 mg/L	102	70.0	130	----
		Silver, total	7440-22-4	E420	0.00400 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		Thallium, total	7440-28-0	E420	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, total	7440-29-1	E420	0.0216 mg/L	0.02 mg/L	108	70.0	130	----
		Tin, total	7440-31-5	E420	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0422 mg/L	0.04 mg/L	105	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, total	7440-61-1	E420	0.00431 mg/L	0.004 mg/L	108	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.112 mg/L	0.1 mg/L	112	70.0	130	----
		Zinc, total	7440-66-6	E420	0.411 mg/L	0.4 mg/L	103	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
Total Metals (QCLot: 1715882)										
WP2423859-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000871 mg/L	0 mg/L	87.1	70.0	130	----
Total Metals (QCLot: 1720181)										
WP2424059-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000888 mg/L	0 mg/L	88.8	70.0	130	----
Dissolved Metals (QCLot: 1715883)										
WP2424068-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000940 mg/L	0 mg/L	94.0	70.0	130	----
Dissolved Metals (QCLot: 1716172)										
WP2423669-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	ND mg/L	----	ND	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0229 mg/L	0.02 mg/L	114	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0444 mg/L	0.04 mg/L	111	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00999 mg/L	0.01 mg/L	99.9	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00444 mg/L	0.004 mg/L	111	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0107 mg/L	0.01 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1716172) - continued										
WP2423669-002	Anonymous	Cobalt, dissolved	7440-48-4	E421	0.0211 mg/L	0.02 mg/L	106	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.36 mg/L	2 mg/L	118	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.116 mg/L	0.1 mg/L	116	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0202 mg/L	0.02 mg/L	101	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0426 mg/L	0.04 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.39 mg/L	4 mg/L	110	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0469 mg/L	0.04 mg/L	117	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	10.8 mg/L	10 mg/L	108	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	22.2 mg/L	20 mg/L	111	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0448 mg/L	0.04 mg/L	112	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00418 mg/L	0.004 mg/L	104	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	ND mg/L	----	ND	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.5	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00420 mg/L	0.004 mg/L	105	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.108 mg/L	0.1 mg/L	108	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.449 mg/L	0.4 mg/L	112	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1716194)										
WP2424059-001	Anonymous	Chromium, dissolved	7440-47-3	E421.Cr-L	0.0448 mg/L	0.04 mg/L	112	70.0	130	----
Dissolved Metals (QCLot: 1716196)										
WP2424059-001	Anonymous	Phosphorus, dissolved	7723-14-0	E421.P-L	12.0 mg/L	10 mg/L	120	70.0	130	----
Dissolved Metals (QCLot: 1716197)										
WP2424059-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.222 mg/L	0.2 mg/L	111	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0215 mg/L	0.02 mg/L	107	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0225 mg/L	0.02 mg/L	112	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0236 mg/L	0.02 mg/L	118	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0442 mg/L	0.04 mg/L	110	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00974 mg/L	0.01 mg/L	97.4	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.107 mg/L	0.1 mg/L	107	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00435 mg/L	0.004 mg/L	109	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0110 mg/L	0.01 mg/L	110	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0217 mg/L	0.02 mg/L	108	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1716197) - continued										
WP2424059-001	Anonymous	Copper, dissolved	7440-50-8	E421	0.0207 mg/L	0.02 mg/L	103	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.16 mg/L	2 mg/L	108	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0211 mg/L	0.02 mg/L	105	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0214 mg/L	0.02 mg/L	107	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0427 mg/L	0.04 mg/L	107	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0220 mg/L	0.02 mg/L	110	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0473 mg/L	0.04 mg/L	118	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	9.96 mg/L	10 mg/L	99.6	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00409 mg/L	0.004 mg/L	102	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0433 mg/L	0.04 mg/L	108	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00404 mg/L	0.004 mg/L	101	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0423 mg/L	0.04 mg/L	106	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0199 mg/L	0.02 mg/L	99.3	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00410 mg/L	0.004 mg/L	102	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.113 mg/L	0.1 mg/L	113	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.422 mg/L	0.4 mg/L	106	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0432 mg/L	0.04 mg/L	108	70.0	130	----
Dissolved Metals (QCLot: 1720182)										
WP2424059-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000898 mg/L	0 mg/L	89.8	70.0	130	----

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Kinross - Great Bear Resources	Select Report Format: ☐ PDF ☑ EXCEL ☐ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
		Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] If received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	
Company:		Email 6	Analysis Request
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients		
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		
Job #:	PPR-022-3	Email 1 invoice@kinross.com		
ALS Lab Work Order # (ALS use only):		ALS Contact: Judy Dalmaijer	Sampler: CB	

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	SW-GL	10-Oct-24	14:00	Water	10	X			7.31	9.45	43
	SW-GL-B	10-Oct-24	14:20	Water	10	X			6.92	9.06	42
	SW-10	10-Oct-24	11:45	Water	10		X		6.15	4.14	143
	SW-DUP-04	10-Oct-24	12:00	Water	10		X		6.15	4.14	143
	SW-BLANK-04	10-Oct-24	12:05	Water	10		X		/	/	/

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)
Released by: CB	Oct 11 2024	Time: 9:00	Received by: AK	Date: Oct 11	Time: 12:50	Received by: Time:

Environmental Division
Winnipeg
Work Order Reference
WP2424082

Telephone : +1 204 255 9720

Sample Intake

Client: Kinross					COC receipt info complete	☐
Express TAT?	no	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: 2 days	3 days	4 days
Matrix	Water	Soil/solid	Air	Biota	Food/micro	Other

Total number of bottles/fractions:			
Green/white	8x500	Orange/black	
Purple/white	10x125	Dark blue/white	
Red/white	10x100	Black/white	
Dark green/white	5x80	Brown/white	
Grey/white		Pink/white	
Yellow/black	10x60	Beige/white	
Light blue/white		Other (specify)	6x125 clear

Comments:

11.3°; No ice

Sample Login

Receipt Window	✓/X	N/A	Bottles	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

CERTIFICATE OF ANALYSIS

Work Order	:	**WP2424113**			
Client	:	**Great Bear Resources Ltd**	Laboratory	:	ALS Environmental - Winnipeg
Contact	:	Ashley Moncrief	Account Manager	:	Judy Dalmaijer
Address	:	Great Bear Resources Ltd. 117 Forestry Road Red Lake Ontario Canada P0V 2M0	Address	:	1329 Niakwa Road East, Unit 12 Winnipeg MB Canada R2J 3T4
Telephone	:	807 630 0203	Telephone	:	+1 204 255 9720
Project	:	PPR-022-3	Date Samples Received	:	10-Oct-2024 10:27
PO	:	PPR-022-03	Date Analysis Commenced	:	15-Oct-2024
C-O-C number	:	----	Issue Date	:	18-Oct-2024 17:59
Sampler	:	----			
Site	:	----			
Quote number	:	2024 Standing offer			
No. of samples received	:	4			
No. of samples analysed	:	4			

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Metals, Winnipeg, Manitoba
Lee McTavish		Inorganics, Winnipeg, Manitoba
Lee McTavish		Administration, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
-	no units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	DL-REF	DL-REF-B	DC-US	GL-TRIB	----
					Client sampling date / time	08-Oct-2024 09:50	08-Oct-2024 10:05	08-Oct-2024 11:45	08-Oct-2024 11:15	----
						WP2424113-001	WP2424113-002	WP2424113-003	WP2424113-004	----
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/WP	0.10	pH units		7.66	7.28	7.38	6.84	----
Temperature, field	----	EF001/WP	0.10	°C		10.3	9.60	9.40	10.3	----
Physical Tests										
Acidity (as CaCO3)	----	E283/WT	2.0	mg/L		<2.0	2.3	<2.0	4.4	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/WP	1.0	mg/L		33.9	33.6	34.3	36.4	----
Alkalinity, carbonate (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, phenolphthalein (as CaCO3)	----	E290/WP	1.0	mg/L		<1.0	<1.0	<1.0	<1.0	----
Alkalinity, total (as CaCO3)	----	E290/WP	1.0	mg/L		33.9	33.6	34.3	36.4	----
Conductivity	----	E100/WP	1.0	µS/cm		73.0	73.1	72.8	77.7	----
Hardness (as CaCO3), dissolved	----	EC100/WP	0.50	mg/L		36.1	38.1	35.0	39.4	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WP	0.50	mg/L		37.6	37.5	38.0	40.4	----
pH	----	E108/WP	0.10	pH units		7.62	7.58	7.60	7.47	----
Solids, total dissolved [TDS]	----	E162-L/WP	3.0	mg/L		76.9	78.3	74.6	83.6	----
Solids, total suspended [TSS]	----	E160-L/WP	1.0	mg/L		5.3	6.1	6.7	12.5	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WP	0.0050	mg/L		0.0264	0.0323	0.0195	0.0742	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/WP	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/WP	0.10	mg/L		0.15	0.17	0.14	0.34	----
Nitrate (as N)	14797-55-8	E235.NO3-L/WP	0.0050	mg/L		0.0272	0.0381	0.0077	0.0230	----
Nitrate + Nitrite (as N)	----	EC235.N+N/WP	0.0050	mg/L		0.0288	0.0394	0.0077	0.0250	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	DL-REF	DL-REF-B	DC-US	GL-TRIB	----
Client sample ID									
Client sampling date / time					08-Oct-2024 09:50	08-Oct-2024 10:05	08-Oct-2024 11:45	08-Oct-2024 11:15	----
					WP2424113-001	WP2424113-002	WP2424113-003	WP2424113-004	----
					Result	Result	Result	Result	----
Anions and Nutrients									
Nitrite (as N)	14797-65-0	E235.NO2-L/WP	0.0010	mg/L	0.0016	0.0013	<0.0010	0.0020	----
Phosphorus, total	7723-14-0	E372-U/WP	0.0020	mg/L	0.0425	0.0280	0.0356	0.0359	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WP	0.30	mg/L	0.56	0.54	0.54	0.48	----
Cyanides									
Cyanide, free	----	E339-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Cyanide, strong acid dissociable (Total)	----	E333-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Cyanide, weak acid dissociable	----	E336-L/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WP	0.50	mg/L	22.2	22.4	21.4	21.9	----
Total Metals									
Aluminum, total	7429-90-5	E420/WP	0.0030	mg/L	0.127	0.169	0.127	0.0714	----
Antimony, total	7440-36-0	E420/WP	0.00010	mg/L	0.000019	0.000020	0.000026	0.000011	----
Arsenic, total	7440-38-2	E420/WP	0.00010	mg/L	0.00340	0.00255	0.00251	0.00212	----
Barium, total	7440-39-3	E420/WP	0.00010	mg/L	0.00842	0.00831	0.00857	0.00819	----
Beryllium, total	7440-41-7	E420/WP	0.000020	mg/L	0.000014	0.000018	0.000017	0.000017	----
Bismuth, total	7440-69-9	E420/WP	0.000050	mg/L	Not Detected	0.0000015	Not Detected	Not Detected	----
Boron, total	7440-42-8	E420/WP	0.010	mg/L	0.0042	0.0045	0.0047	0.0030	----
Cadmium, total	7440-43-9	E420/WP	0.0000050	mg/L	0.0000027	0.0000017	0.0000056	0.0000038	----
Calcium, total	7440-70-2	E420/WP	0.050	mg/L	9.80	9.65	10.2	10.6	----
Cesium, total	7440-46-2	E420/WP	0.000010	mg/L	0.0000088	0.0000090	0.0000094	0.0000038	----
Chromium, total	7440-47-3	E420.Cr-L/WP	0.00010	mg/L	0.00050	0.00053	0.00046	0.00035	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	DL-REF	DL-REF-B	DC-US	GL-TRIB	----
					Client sampling date / time	08-Oct-2024 09:50	08-Oct-2024 10:05	08-Oct-2024 11:45	08-Oct-2024 11:15	----
						WP2424113-001	WP2424113-002	WP2424113-003	WP2424113-004	----
						Result	Result	Result	Result	----
Total Metals										
Cobalt, total	7440-48-4	E420/WP	0.00010	mg/L		0.00017	0.00016	0.00014	0.00014	----
Copper, total	7440-50-8	E420/WP	0.00050	mg/L		0.00083	0.00091	0.00088	0.00073	----
Iron, total	7439-89-6	E420/WP	0.010	mg/L		0.599	0.597	0.432	0.305	----
Lead, total	7439-92-1	E420/WP	0.000050	mg/L		0.000166	0.000180	0.000180	0.000078	----
Lithium, total	7439-93-2	E420/WP	0.0010	mg/L		0.0020	0.0020	0.0017	0.0020	----
Magnesium, total	7439-95-4	E420/WP	0.0050	mg/L		3.20	3.26	3.04	3.39	----
Manganese, total	7439-96-5	E420/WP	0.00010	mg/L		0.0198	0.0187	0.0104	0.0139	----
Mercury, total	7439-97-6	E508/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/WP	0.000050	mg/L		0.000196	0.000161	0.000198	0.000146	----
Nickel, total	7440-02-0	E420/WP	0.00050	mg/L		0.00074	0.00089	0.00075	0.00072	----
Phosphorus, total	7723-14-0	E420.P-L/WP	0.030	mg/L		<0.030	0.032	<0.030	<0.030	----
Potassium, total	7440-09-7	E420/WP	0.050	mg/L		0.847	0.815	0.852	1.10	----
Rubidium, total	7440-17-7	E420/WP	0.00020	mg/L		0.00190	0.00188	0.00185	0.00278	----
Selenium, total	7782-49-2	E420/WP	0.000050	mg/L		0.000194	Not Detected	0.000034	0.000083	----
Silicon, total	7440-21-3	E420/WP	0.10	mg/L		2.55	2.46	2.40	1.68	----
Silver, total	7440-22-4	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Sodium, total	7440-23-5	E420/WP	0.050	mg/L		1.56	1.62	1.52	1.66	----
Strontium, total	7440-24-6	E420/WP	0.00020	mg/L		0.0256	0.0237	0.0258	0.0243	----
Sulfur, total	7704-34-9	E420/WP	0.50	mg/L		0.59	0.50	0.36	0.36	----
Tellurium, total	13494-80-9	E420/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, total	7440-28-0	E420/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	DL-REF	DL-REF-B	DC-US	GL-TRIB	----
Client sample ID									
Client sampling date / time					08-Oct-2024 09:50	08-Oct-2024 10:05	08-Oct-2024 11:45	08-Oct-2024 11:15	----
					WP2424113-001	WP2424113-002	WP2424113-003	WP2424113-004	----
					Result	Result	Result	Result	----
Total Metals									
Thorium, total	7440-29-1	E420/WP	0.00010	mg/L	0.000052	0.000072	0.000046	0.000026	----
Tin, total	7440-31-5	E420/WP	0.00010	mg/L	Not Detected	0.000053	Not Detected	Not Detected	----
Titanium, total	7440-32-6	E420/WP	0.00030	mg/L	0.00470	0.00586	0.00447	0.00258	----
Tungsten, total	7440-33-7	E420/WP	0.00010	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	----
Uranium, total	7440-61-1	E420/WP	0.000010	mg/L	0.000263	0.000217	0.000227	0.000140	----
Vanadium, total	7440-62-2	E420/WP	0.00050	mg/L	0.00112	0.00107	0.00100	0.00070	----
Zinc, total	7440-66-6	E420/WP	0.0030	mg/L	0.00074	0.0020	0.00077	0.00094	----
Zirconium, total	7440-67-7	E420/WP	0.00020	mg/L	0.00032	0.00031	0.00028	0.00018	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WP	0.0010	mg/L	0.0429	0.0396	0.0390	0.0371	----
Antimony, dissolved	7440-36-0	E421/WP	0.00010	mg/L	0.000057	0.000059	0.000058	0.000071	----
Arsenic, dissolved	7440-38-2	E421/WP	0.00010	mg/L	0.00312	0.00288	0.00230	0.00200	----
Barium, dissolved	7440-39-3	E421/WP	0.00010	mg/L	0.00849	0.00853	0.00866	0.00829	----
Beryllium, dissolved	7440-41-7	E421/WP	0.000020	mg/L	0.000016	0.000014	0.0000080	0.0000094	----
Bismuth, dissolved	7440-69-9	E421/WP	0.000050	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	----
Boron, dissolved	7440-42-8	E421/WP	0.010	mg/L	0.0048	0.0050	0.0045	0.0032	----
Cadmium, dissolved	7440-43-9	E421/WP	0.0000050	mg/L	0.0000012	0.0000023	0.0000010	0.00000097	----
Calcium, dissolved	7440-70-2	E421/WP	0.050	mg/L	9.51	9.90	9.20	10.2	----
Cesium, dissolved	7440-46-2	E421/WP	0.000010	mg/L	0.0000027	0.0000037	0.0000017	0.0000045	----
Chromium, dissolved	7440-47-3	E421.Cr-L/WP	0.00010	mg/L	0.00033	0.00032	0.00030	0.00028	----
Cobalt, dissolved	7440-48-4	E421/WP	0.00010	mg/L	0.00011	0.00011	0.000085	0.00010	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	DL-REF	DL-REF-B	DC-US	GL-TRIB	----
					Client sampling date / time	08-Oct-2024 09:50	08-Oct-2024 10:05	08-Oct-2024 11:45	08-Oct-2024 11:15	----
						WP2424113-001	WP2424113-002	WP2424113-003	WP2424113-004	----
						Result	Result	Result	Result	----
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WP	0.00020	mg/L		0.00072	0.00066	0.00078	0.00066	----
Iron, dissolved	7439-89-6	E421/WP	0.010	mg/L		0.409	0.399	0.287	0.188	----
Lead, dissolved	7439-92-1	E421/WP	0.000050	mg/L		0.000122	0.000114	0.000123	0.000059	----
Lithium, dissolved	7439-93-2	E421/WP	0.0010	mg/L		0.00070	0.00078	0.00062	0.00094	----
Magnesium, dissolved	7439-95-4	E421/WP	0.0050	mg/L		3.00	3.24	2.92	3.39	----
Manganese, dissolved	7439-96-5	E421/WP	0.00010	mg/L		0.00968	0.0109	0.00526	0.00825	----
Mercury, dissolved	7439-97-6	E509/WP	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/WP	0.000050	mg/L		0.000200	0.000197	0.000188	0.000215	----
Nickel, dissolved	7440-02-0	E421/WP	0.00050	mg/L		0.00058	0.00053	0.00060	0.00056	----
Phosphorus, dissolved	7723-14-0	E421.P-L/WP	0.030	mg/L		<0.030	<0.030	<0.030	<0.030	----
Potassium, dissolved	7440-09-7	E421/WP	0.050	mg/L		0.766	0.784	0.755	1.17	----
Rubidium, dissolved	7440-17-7	E421/WP	0.00020	mg/L		0.00181	0.00175	0.00163	0.00281	----
Selenium, dissolved	7782-49-2	E421/WP	0.000050	mg/L		0.000150	0.000077	0.000150 DTSE	0.000072	----
Silicon, dissolved	7440-21-3	E421/WP	0.050	mg/L		2.06	2.16	1.95	1.45	----
Silver, dissolved	7440-22-4	E421/WP	0.000010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Sodium, dissolved	7440-23-5	E421/WP	0.050	mg/L		1.60	1.50	1.40	1.58	----
Strontium, dissolved	7440-24-6	E421/WP	0.00020	mg/L		0.0238	0.0237	0.0229	0.0241	----
Sulfur, dissolved	7704-34-9	E421/WP	0.50	mg/L		0.41	0.32	0.26	0.24	----
Tellurium, dissolved	13494-80-9	E421/WP	0.00020	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Thallium, dissolved	7440-28-0	E421/WP	0.000010	mg/L		0.0000032	0.0000032	0.0000024	0.0000030	----
Thorium, dissolved	7440-29-1	E421/WP	0.00010	mg/L		0.000052	0.000051	0.000048	0.000038	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab/Accreditation	LOR	Unit	Client sample ID	DL-REF	DL-REF-B	DC-US	GL-TRIB	----
					Client sampling date / time	08-Oct-2024 09:50	08-Oct-2024 10:05	08-Oct-2024 11:45	08-Oct-2024 11:15	----
						WP2424113-001	WP2424113-002	WP2424113-003	WP2424113-004	----
						Result	Result	Result	Result	----
Dissolved Metals										
Tin, dissolved	7440-31-5	E421/WP	0.00010	mg/L		0.000021	Not Detected	Not Detected	Not Detected	----
Titanium, dissolved	7440-32-6	E421/WP	0.00030	mg/L		0.00180	0.00149	0.00148	0.00098	----
Tungsten, dissolved	7440-33-7	E421/WP	0.00010	mg/L		Not Detected	Not Detected	Not Detected	Not Detected	----
Uranium, dissolved	7440-61-1	E421/WP	0.000010	mg/L		0.000225	0.000209	0.000186	0.000127	----
Vanadium, dissolved	7440-62-2	E421/WP	0.00050	mg/L		0.00083	0.00078	0.00075	0.00052	----
Zinc, dissolved	7440-66-6	E421/WP	0.0010	mg/L		0.00081	0.00054	0.00063	0.00048	----
Zirconium, dissolved	7440-67-7	E421/WP	0.00030	mg/L		0.00037	0.00032	0.00031	0.00023	----
Dissolved mercury filtration location	----	EP509/WP	-	-		Field	Field	Field	Field	----
Dissolved metals filtration location	----	EP421/WP	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WP2424113**	Page	: 1 of 22
Client	: **Great Bear Resources Ltd**	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 10-Oct-2024 10:27
PO	: PPR-022-03	Issue Date	: 18-Oct-2024 16:50
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Matrix Spike outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-MRG3-1713526 002	----	Boron, dissolved	7440-42-8	E421	79.9 % MES	80.0-120%	Recovery less than lower control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DC-US	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DL-REF-B	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) GL-TRIB	E298	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) DL-REF	E298	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DC-US	E235.Cl-L	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DL-REF	E235.Cl-L	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE DL-REF-B	E235.Cl-L	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE GL-TRIB	E235.Cl-L	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DC-US	E235.NO3-L	08-Oct-2024	15-Oct-2024	3 days	7 days	× EHT	15-Oct-2024	3 days	7 days	× EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DL-REF	E235.NO3-L	08-Oct-2024	15-Oct-2024	3 days	7 days	× EHT	15-Oct-2024	3 days	7 days	× EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE DL-REF-B	E235.NO3-L	08-Oct-2024	15-Oct-2024	3 days	7 days	× EHT	15-Oct-2024	3 days	7 days	× EHT
Anions and Nutrients : Nitrate in Water by IC (Low Level)										
HDPE GL-TRIB	E235.NO3-L	08-Oct-2024	15-Oct-2024	3 days	7 days	× EHT	15-Oct-2024	3 days	7 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DC-US	E235.NO2-L	08-Oct-2024	15-Oct-2024	3 days	7 days	× EHT	15-Oct-2024	3 days	7 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DL-REF	E235.NO2-L	08-Oct-2024	15-Oct-2024	3 days	7 days	× EHT	15-Oct-2024	3 days	7 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE DL-REF-B	E235.NO2-L	08-Oct-2024	15-Oct-2024	3 days	7 days	× EHT	15-Oct-2024	3 days	7 days	× EHT
Anions and Nutrients : Nitrite in Water by IC (Low Level)										
HDPE GL-TRIB	E235.NO2-L	08-Oct-2024	15-Oct-2024	3 days	7 days	× EHT	15-Oct-2024	3 days	7 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE DC-US	E235.SO4	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE DL-REF	E235.SO4	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE DL-REF-B	E235.SO4	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE GL-TRIB	E235.SO4	08-Oct-2024	15-Oct-2024	28 days	7 days	✓	15-Oct-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DC-US	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DL-REF	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) DL-REF-B	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) GL-TRIB	E372-U	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	17-Oct-2024	28 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DC-US	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF-B	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Free Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E339-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF-B	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : Total Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
GL-TRIB	E333-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DC-US	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide)										
DL-REF	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) DL-REF-B	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Cyanides : WAD Cyanide (Low Level)										
UV-inhibited HDPE - total (sodium hydroxide) GL-TRIB	E336-L	08-Oct-2024	17-Oct-2024	14 days	9 days	✓	17-Oct-2024	14 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) DC-US	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) DL-REF	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) DL-REF-B	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)										
HDPE dissolved (nitric acid) GL-TRIB	E421.Cr-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) GL-TRIB	E509	08-Oct-2024	18-Oct-2024	28 days	10 days	✓	18-Oct-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DC-US	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DL-REF	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DL-REF-B	E509	08-Oct-2024	17-Oct-2024	28 days	9 days	✓	17-Oct-2024	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DC-US	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DL-REF	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DL-REF-B	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) GL-TRIB	E421	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DC-US	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DL-REF	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) DL-REF-B	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE dissolved (nitric acid) GL-TRIB	E421.P-L	08-Oct-2024	17-Oct-2024	180 days	9 days	✓	17-Oct-2024	180 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
DC-US	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
DL-REF	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
DL-REF-B	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
Glass vial dissolved (hydrochloric acid)										
GL-TRIB	EF001	08-Oct-2024	----	----	----		18-Oct-2024	----	10 days	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DC-US	E358-L	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DL-REF	E358-L	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
DL-REF-B	E358-L	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid)										
GL-TRIB	E358-L	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE										
DC-US	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE DL-REF	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE DL-REF-B	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE GL-TRIB	E283	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	17-Oct-2024	14 days	9 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DC-US	E290	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	16-Oct-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DL-REF	E290	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	16-Oct-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE DL-REF-B	E290	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	16-Oct-2024	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE GL-TRIB	E290	08-Oct-2024	16-Oct-2024	14 days	8 days	✓	16-Oct-2024	14 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE DC-US	E100	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE DL-REF	E100	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE DL-REF-B	E100	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE GL-TRIB	E100	08-Oct-2024	16-Oct-2024	28 days	8 days	✓	16-Oct-2024	28 days	8 days	✓
Physical Tests : pH by Meter										
HDPE DC-US	E108	08-Oct-2024	16-Oct-2024	0.25 hrs	195 hrs	× EHTR-FM	16-Oct-2024	0.25 hrs	195 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE GL-TRIB	E108	08-Oct-2024	16-Oct-2024	0.25 hrs	195 hrs	× EHTR-FM	16-Oct-2024	0.25 hrs	195 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DL-REF	E108	08-Oct-2024	16-Oct-2024	0.25 hrs	197 hrs	× EHTR-FM	16-Oct-2024	0.25 hrs	197 hrs	× EHTR-FM
Physical Tests : pH by Meter										
HDPE DL-REF-B	E108	08-Oct-2024	16-Oct-2024	0.25 hrs	197 hrs	× EHTR-FM	16-Oct-2024	0.25 hrs	197 hrs	× EHTR-FM
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DC-US	E162-L	08-Oct-2024	----	----	----		17-Oct-2024	7 days	9 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DL-REF	E162-L	08-Oct-2024	----	----	----		17-Oct-2024	7 days	9 days	× EHT
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE DL-REF-B	E162-L	08-Oct-2024	----	----	----		17-Oct-2024	7 days	9 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry (Low Level)										
HDPE GL-TRIB	E162-L	08-Oct-2024	----	----	----		17-Oct-2024	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE DC-US	E160-L	08-Oct-2024	----	----	----		17-Oct-2024	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE DL-REF	E160-L	08-Oct-2024	----	----	----		17-Oct-2024	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE DL-REF-B	E160-L	08-Oct-2024	----	----	----		17-Oct-2024	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE GL-TRIB	E160-L	08-Oct-2024	----	----	----		17-Oct-2024	7 days	9 days	× EHT
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DC-US	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DL-REF	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) DL-REF-B	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)										
HDPE total (nitric acid) GL-TRIB	E420.Cr-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DC-US	E508	08-Oct-2024	18-Oct-2024	28 days	10 days	✓	18-Oct-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DL-REF	E508	08-Oct-2024	18-Oct-2024	28 days	10 days	✓	18-Oct-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) DL-REF-B	E508	08-Oct-2024	18-Oct-2024	28 days	10 days	✓	18-Oct-2024	28 days	10 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) GL-TRIB	E508	08-Oct-2024	18-Oct-2024	28 days	10 days	✓	18-Oct-2024	28 days	10 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DC-US	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DL-REF	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DL-REF-B	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) GL-TRIB	E420	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DC-US	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DL-REF	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) DL-REF-B	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓
Total Metals : Total Phosphorus in Water by CRC-ICPMS (Low level)										
HDPE total (nitric acid) GL-TRIB	E420.P-L	08-Oct-2024	16-Oct-2024	180 days	8 days	✓	16-Oct-2024	180 days	8 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1711794	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1711797	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1711602	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1710603	0	8	0.0	5.0	✗
Conductivity in Water	E100	1711796	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1713530	0	14	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1713189	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1713526	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1710540	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1713531	0	14	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1713106	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1710596	0	7	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1710595	0	7	0.0	5.0	✗
pH by Meter	E108	1711795	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1710601	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1712093	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1711202	0	13	0.0	5.0	✗
Total Cyanide (Low Level)	E333-L	1713107	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1711201	0	15	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712955	0	7	0.0	5.0	✗
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1711203	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1712088	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713105	1	18	5.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1711794	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1711797	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1711602	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1710603	1	8	12.5	5.0	✓
Conductivity in Water	E100	1711796	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1713530	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1713189	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1713526	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1710540	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1713531	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1713106	1	18	5.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Nitrate in Water by IC (Low Level)	E235.NO3-L	1710596	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1710595	1	7	14.2	5.0	✓
pH by Meter	E108	1711795	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1710601	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1712093	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1711202	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1713107	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1711201	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712955	1	7	14.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1711203	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1712088	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713105	1	18	5.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1711794	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1711797	1	18	5.5	5.0	✓
Ammonia by Fluorescence	E298	1711602	2	40	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1710603	1	8	12.5	5.0	✓
Conductivity in Water	E100	1711796	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1713530	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1713189	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1713526	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1710540	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1713531	1	14	7.1	5.0	✓
Free Cyanide (Low Level)	E339-L	1713106	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1710596	1	7	14.2	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	1710595	1	7	14.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1710601	1	15	6.6	5.0	✓
TDS by Gravimetry (Low Level)	E162-L	1712093	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1711202	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1713107	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1711201	1	15	6.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712955	1	7	14.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1711203	1	13	7.6	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1712088	1	20	5.0	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713105	1	18	5.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1711602	2	40	5.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chloride in Water by IC (Low Level)	E235.Cl-L	1710603	0	8	0.0	5.0	✗
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	1713530	0	14	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1713189	2	40	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1713526	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1710540	1	20	5.0	5.0	✓
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L	1713531	0	14	0.0	5.0	✗
Free Cyanide (Low Level)	E339-L	1713106	1	18	5.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	1710596	0	7	0.0	5.0	✗
Nitrite in Water by IC (Low Level)	E235.NO2-L	1710595	0	7	0.0	5.0	✗
Sulfate in Water by IC	E235.SO4	1710601	1	15	6.6	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	1711202	1	13	7.6	5.0	✓
Total Cyanide (Low Level)	E333-L	1713107	1	18	5.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1715882	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1711201	0	15	0.0	5.0	✗
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1712955	1	7	14.2	5.0	✓
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L	1711203	1	13	7.6	5.0	✓
WAD Cyanide (Low Level)	E336-L	1713105	1	18	5.5	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Winnipeg	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Winnipeg	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Winnipeg	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry (Low Level)	E162-L ALS Environmental - Winnipeg	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Winnipeg	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Waterloo	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 ALS Environmental - Winnipeg	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Winnipeg	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Cyanide (Low Level)	E333-L ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
WAD Cyanide (Low Level)	E336-L ALS Environmental - Waterloo	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Free Cyanide (Low Level)	E339-L ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Total Phosphorus in Water by CRC-ICPMS (Low level)	E420.P-L ALS Environmental - Winnipeg	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L ALS Environmental - Winnipeg	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Dissolved Phosphorus in Water by CRC-ICPMS (Low level)	E421.P-L ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Winnipeg	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Winnipeg	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), dissolved” is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Winnipeg	Water	APHA 2340B	“Hardness (as CaCO3), from total Ca/Mg” is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. “Total Hardness” refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Winnipeg	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Winnipeg	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Winnipeg	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Winnipeg	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Winnipeg	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WP2424113**	Page	: 1 of 15
Client	: Great Bear Resources Ltd	Laboratory	: ALS Environmental - Winnipeg
Contact	: Ashley Moncrief	Account Manager	: Judy Dalmaijer
Address	: Great Bear Resources Ltd. 117 Forestry Road Red Lake ON Canada P0V 2M0	Address	: 1329 Niakwa Road East, Unit 12 Winnipeg, Manitoba Canada R2J 3T4
Telephone	: 807 630 0203	Telephone	: +1 204 255 9720
Project	: PPR-022-3	Date Samples Received	: 10-Oct-2024 10:27
PO	: PPR-022-03	Date Analysis Commenced	: 15-Oct-2024
C-O-C number	: ----	Issue Date	: 18-Oct-2024 16:44
Sampler	: ----		
Site	: ----		
Quote number	: 2024 Standing offer_V3		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Administration, Winnipeg, Manitoba
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Lee McTavish		Winnipeg Metals, Winnipeg, Manitoba
Leila Conyard	Lab Assistant	Winnipeg Metals, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
# = Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 1711794)											
WP2424051-001	Anonymous	Acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1711795)											
WP2424112-006	Anonymous	pH	----	E108	0.10	pH units	8.32	8.33	0.120%	4%	----
Physical Tests (QC Lot: 1711796)											
WP2424112-006	Anonymous	Conductivity	----	E100	2.0	µS/cm	22200	22400	0.897%	10%	----
Physical Tests (QC Lot: 1711797)											
WP2424112-006	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	568	576	1.41%	20%	----
Physical Tests (QC Lot: 1712088)											
WP2424088-002	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	50.7	49.9	1.46%	20%	----
Physical Tests (QC Lot: 1712093)											
WP2424088-002	Anonymous	Solids, total dissolved [TDS]	----	E162-L	15.0	mg/L	164	161	1.84%	20%	----
Anions and Nutrients (QC Lot: 1710601)											
WP2424107-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	95.4	94.7	0.663%	20%	----
Anions and Nutrients (QC Lot: 1711602)											
WP2424156-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0100	mg/L	0.630	0.622	1.31%	20%	----
Anions and Nutrients (QC Lot: 1713300)											
WP2424088-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0238	0.0266	0.0029	Diff <2x LOR	----
Cyanides (QC Lot: 1713105)											
WP2424038-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1713106)											
WP2424038-001	Anonymous	Cyanide, free	----	E339-L	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Cyanides (QC Lot: 1713107)											
WP2424038-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	0.0050	mg/L	0.0115	0.0102	0.0013	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1710540)											
WP2424038-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	47.5	48.4	1.94%	20%	----
Total Metals (QC Lot: 1711203)											
WP2424051-006	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	0.030	mg/L	0.030	<0.030	0.00008	Diff <2x LOR	----
Total Metals (QC Lot: 1715882)											
WP2423859-001	Anonymous	Mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1713189)											
WP2423859-004	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1713526)											
WP2423836-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00300	0.00302	0.696%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0381	0.0385	1.10%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.126	0.123	2.70%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	44.0	43.3	1.46%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00021	0.00020	0.000008	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00044	0.00043	0.000001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0235	0.0259	9.91%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	46.7	45.2	3.30%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00704	0.00716	1.82%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00225	0.00217	3.34%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00058	0.00056	0.00002	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	3.25	3.29	1.16%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00143	0.00148	0.00004	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	6.07	6.08	0.144%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	28.8	27.9	3.24%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.400	0.388	3.20%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	21.4	22.0	2.75%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1713526) - continued											
WP2423836-001	Anonymous	Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00108	0.00106	1.81%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0016	0.0015	0.00003	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1715883)											
WP2424068-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1711794)						
Acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
Physical Tests (QCLot: 1711796)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1711797)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1712088)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Physical Tests (QCLot: 1712093)						
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1710595)						
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1710596)						
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1710601)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1710603)						
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
Anions and Nutrients (QCLot: 1711602)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1712955)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1713300)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Cyanides (QCLot: 1713105)						
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1713106)						
Cyanide, free	----	E339-L	0.001	mg/L	<0.0010	----
Cyanides (QCLot: 1713107)						
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 1710540)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1711201)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1711201) - continued						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1711201) - continued						
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Total Metals (QCLot: 1711202)						
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	----
Total Metals (QCLot: 1711203)						
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	<0.030	----
Total Metals (QCLot: 1715882)						
Mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1713189)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 1713526)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1713526) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1713530)						
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
Dissolved Metals (QCLot: 1713531)						
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	<0.030	----
Dissolved Metals (QCLot: 1715883)						
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1711794)									
Acidity (as CaCO3)	----	E283	2	mg/L	50 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1711795)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1711796)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.0	90.0	110	----
Physical Tests (QCLot: 1711797)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	100 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1712088)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	110	85.0	115	----
Physical Tests (QCLot: 1712093)									
Solids, total dissolved [TDS]	----	E162-L	3	mg/L	1000 mg/L	94.8	85.0	115	----
Anions and Nutrients (QCLot: 1710595)									
Nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 1710596)									
Nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1710601)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1710603)									
Chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1711602)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1712955)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.5 mg/L	93.8	80.0	120	----
Anions and Nutrients (QCLot: 1713300)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Cyanides (QCLot: 1713105)									
Cyanide, weak acid dissociable	----	E336-L	0.001	mg/L	0.125 mg/L	93.2	80.0	120	----
Cyanides (QCLot: 1713106)									
Cyanide, free	----	E339-L	0.001	mg/L	0.125 mg/L	98.5	80.0	120	----
Cyanides (QCLot: 1713107)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Cyanides (QCLot: 1713107) - continued									
Cyanide, strong acid dissociable (Total)	----	E333-L	0.001	mg/L	0.25 mg/L	88.4	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1710540)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.6	80.0	120	----
Total Metals (QCLot: 1711201)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	94.6	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	96.8	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	94.2	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	92.2	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	90.6	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	104	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	88.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	99.2	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.4	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.05 mg/L	99.0	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	97.4	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	97.1	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	97.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	99.5	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	87.2	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	96.9	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	95.4	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.4	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	94.8	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	95.0	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.1 mg/L	96.0	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	93.3	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	95.8	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	92.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	98.2	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	94.2	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	100	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.1 mg/L	89.6	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	96.1	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.1 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1711201) - continued									
Tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.7	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	90.2	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.1 mg/L	96.3	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	93.1	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.1 mg/L	92.9	80.0	120	----
Total Metals (QCLot: 1711202)									
Chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	97.2	80.0	120	----
Total Metals (QCLot: 1711203)									
Phosphorus, total	7723-14-0	E420.P-L	0.03	mg/L	10 mg/L	92.1	80.0	120	----
Total Metals (QCLot: 1715882)									
Mercury, total	7439-97-6	E508	0.000005	mg/L	0 mg/L	98.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 1713526)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	93.7	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	99.5	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	95.2	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	94.6	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	84.5	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	92.6	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	# 79.9	80.0	120	MES
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	96.9	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	91.5	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.05 mg/L	98.7	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	96.1	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	92.4	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	91.0	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	81.9	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	95.2	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	95.8	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	96.2	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	95.3	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	91.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1713526) - continued									
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.1 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	95.0	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	93.3	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	87.8	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	96.3	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	97.1	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	91.6	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.1 mg/L	98.1	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	91.1	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.1 mg/L	91.0	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.0	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	94.1	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.1 mg/L	96.1	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	92.5	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	97.9	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	92.5	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.1 mg/L	94.6	80.0	120	----
Dissolved Metals (QCLot: 1713530)									
Chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	96.1	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421.P-L	0.03	mg/L	10 mg/L	93.5	80.0	120	----
Mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0 mg/L	99.7	80.0	120	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1710601)										
WP2424107-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	94.3 mg/L	100 mg/L	94.3	75.0	125	----
Anions and Nutrients (QCLot: 1711602)										
WP2424156-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1712955)										
WP2424100-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1713300)										
WP2424088-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.103 mg/L	0.1 mg/L	103	75.0	125	----
Cyanides (QCLot: 1713105)										
WP2424038-001	Anonymous	Cyanide, weak acid dissociable	----	E336-L	0.626 mg/L	0.625 mg/L	100	75.0	125	----
Cyanides (QCLot: 1713106)										
WP2424038-001	Anonymous	Cyanide, free	----	E339-L	0.643 mg/L	0.625 mg/L	103	75.0	125	----
Cyanides (QCLot: 1713107)										
WP2424038-001	Anonymous	Cyanide, strong acid dissociable (Total)	----	E333-L	1.11 mg/L	1.25 mg/L	88.5	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1710540)										
WP2424038-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1711202)										
WP2424051-006	Anonymous	Chromium, total	7440-47-3	E420.Cr-L	0.0441 mg/L	0.04 mg/L	110	70.0	130	----
Total Metals (QCLot: 1711203)										
WP2424051-006	Anonymous	Phosphorus, total	7723-14-0	E420.P-L	10.2 mg/L	10 mg/L	102	70.0	130	----
Total Metals (QCLot: 1715882)										
WP2423859-002	Anonymous	Mercury, total	7439-97-6	E508	0.0000871 mg/L	0 mg/L	87.1	70.0	130	----
Dissolved Metals (QCLot: 1713189)										
WP2423969-001	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000918 mg/L	0 mg/L	91.8	70.0	130	----
Dissolved Metals (QCLot: 1713526)										
WP2423836-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0219 mg/L	0.02 mg/L	109	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0228 mg/L	0.02 mg/L	114	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.00971 mg/L	0.01 mg/L	97.1	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00429 mg/L	0.004 mg/L	107	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1713526) - continued										
WP2423836-001	Anonymous	Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0111 mg/L	0.01 mg/L	111	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0206 mg/L	0.02 mg/L	103	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Iron, dissolved	7439-89-6	E421	2.04 mg/L	2 mg/L	102	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0207 mg/L	0.02 mg/L	104	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0210 mg/L	0.02 mg/L	105	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0205 mg/L	0.02 mg/L	102	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0406 mg/L	0.04 mg/L	101	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	4.24 mg/L	4 mg/L	106	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0212 mg/L	0.02 mg/L	106	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0491 mg/L	0.04 mg/L	123	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	8.79 mg/L	10 mg/L	87.9	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00403 mg/L	0.004 mg/L	101	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.00394 mg/L	0.004 mg/L	98.6	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0208 mg/L	0.02 mg/L	104	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0204 mg/L	0.02 mg/L	102	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0405 mg/L	0.04 mg/L	101	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0203 mg/L	0.02 mg/L	102	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.00401 mg/L	0.004 mg/L	100	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.110 mg/L	0.1 mg/L	110	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.414 mg/L	0.4 mg/L	104	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 1715883)										
WP2424068-002	Anonymous	Mercury, dissolved	7439-97-6	E509	0.0000940 mg/L	0 mg/L	94.0	70.0	130	----

Environmental Division
Winnipeg
Work Order Reference
WP2424113

Telephone : +1 204 255 9720

Report To		Reports / Recipients	Turnaround Time (
Company:	Kinross - Great Bear Resources	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surch
Contact:	Hannah Hillier	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush
Phone:	(807) 633-2492	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush
		Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush
Street:	19 Young Street	Email 1 GBR_Enviro@Kinross.com	☐ 1 day [E] if received by 3pm M-F - 100% rush
City/Province:	Red Lake, ON	Email 2 importer@kinrossgreatbear.ehsdata.com	☐ Same day [E2] if received by 10am M-S - 200
Postal Code:	P0V2M0	Email 3 amy.elliot@wsp.com	Additional fees may apply to rush r holidays and for no
Invoice To	Same as Report To ☑ YES ☐ NO	Email 4 dale.klodnicki@wsp.com	**Date and Time Require**
	Copy of Invoice with Report ☑ YES ☐ NO	Email 5 matthew.wilson4@wsp.com	**Analysis R**
Company:		Email 6	
		Email 7	
		Email 8	
		Email 9	
Contact:		Email 10	

Project Information		Invoice Recipients
ALS Account # / Quote #:	PPR-022-3	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Job #:	PPR-022-3	Email 1 invoice@kinross.com
ALS Lab Work Order # (ALS use only):	WP2424113	ALS Contact: Judy Dalmaijer — Sampler: EM

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	SW-M	SW-Q		Field pH	Field Temperature	Field Conductivity (us/cm)
	DL-REF	8-Oct-24	9:50	Water	10		X		7.66	10.3	58.2
	DL-REF-B	8-Oct-24	10:05	Water	10		X		7.28	9.6	57.4
	DC-US	8-Oct-24	11:45	Water	10		X		7.38	9.4	55.9
	GL-TRIB	8-Oct-24	11:15	Water	10		X		6.84	7.9	60.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)	
Released by: EM	Oct 9 2024	Time: 14:19	Received by: AL	Date: Oct 10	Time: 10:27	Received by:	Time:

Sample Intake

Client: Kinross - Great Bear				COC receipt info complete ☐		
Express TAT?	(no)	same day	1 day	Yes: 2 day	3 days	4 day
Short hold time?	no	<24 hrs	1 day	Yes: (2 days)	3 days	4 days
Matrix:	(Water)	Soil/solid	Air	Biota	Food/micro	Other
Total number of bottles/fractions:	40					
Green/white	8 x 500		Orange/black			
Purple/white	8 x 125		Dark blue/white			
Red/white	8 x 100		Black/white			
Dark green/white	4 x 80		Brown/white			
Grey/white			Pink/white			
Yellow/black	8 x 60		Beige/white			
Light blue/white			Other (specify)	4x Plastic (White		

Comments:

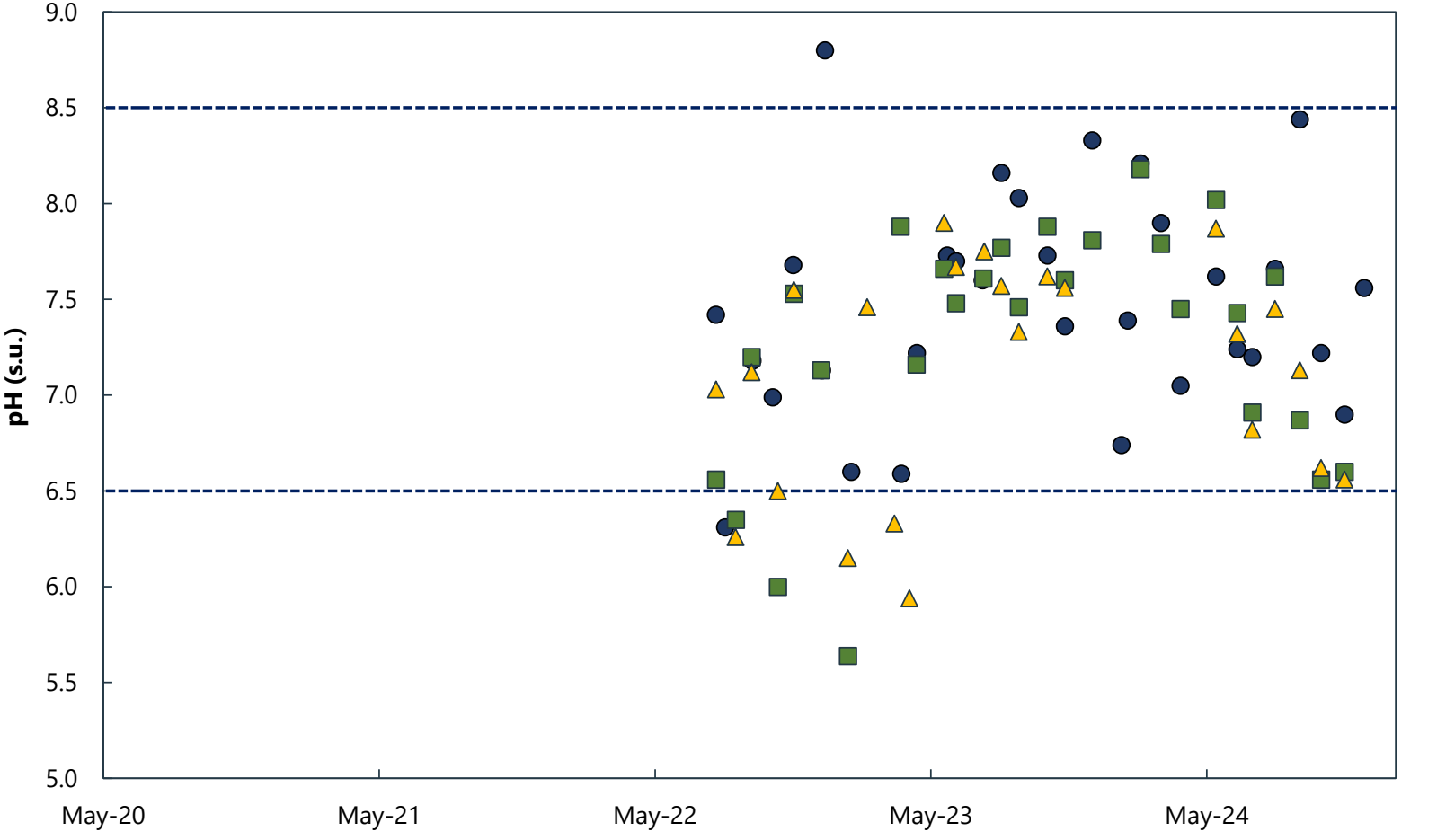
14.9°; No ice

Sample Login

Receipt Window	✓/X	N/A	**Bottles**	✓/X	N/A
# of fractions, matrix and submatrix			All received bottles have IDs		
Client, office, contact, quote, project			Type, volume, and locations		
Receipt time/date, PO, project, site			Labels and internal COCs printed		
Temp, cooling method, sampler			**Client Contacts**	✓/X	N/A
Sample Info	✓/X	N/A	Report/invoice/EDD recipients		
Sample date/time			Report types/formats		
Sample ID/description			**Post-committing**	✓/X	N/A
Sales items			Runs built and field data entered		
Guidelines/thresholds			Billing information entered		
Additional sample/WO information			**Action Required?**	Yes	No
Due Dates	✓/X	N/A	Update default receipt data		
COC/GEL/client due dates match			Update default report data		
Express TAT surcharges			Add sales/billing items to quote		
Clock running for all samples			SIF initiated (elaborate in comments)		

Comments:

Appendix C
Surface Water Quality Graphs



Notes:

1 - PWQO: Provincial Water Quality Objectives

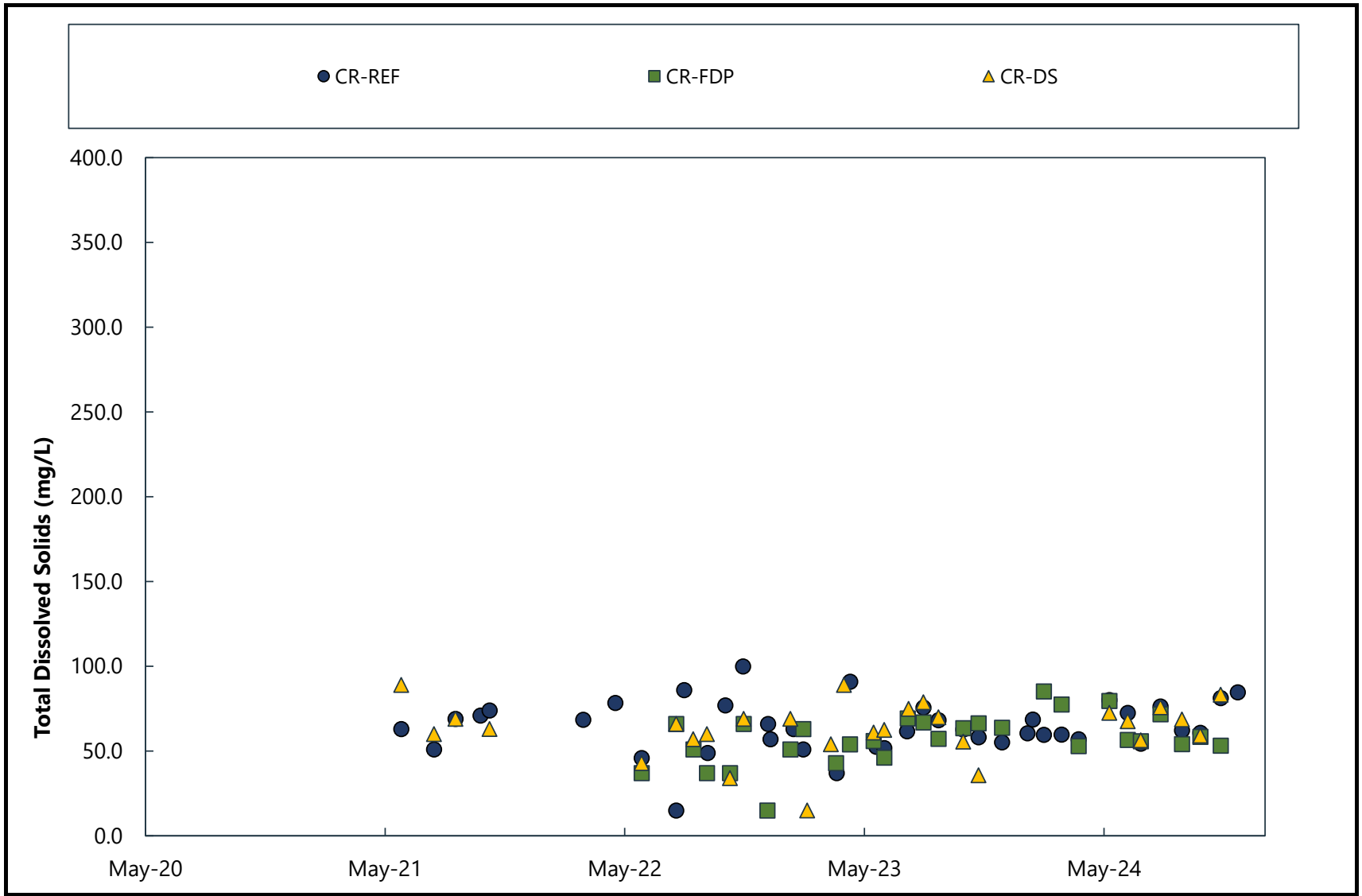
2 - pH shown is field pH.

Field pH - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-1



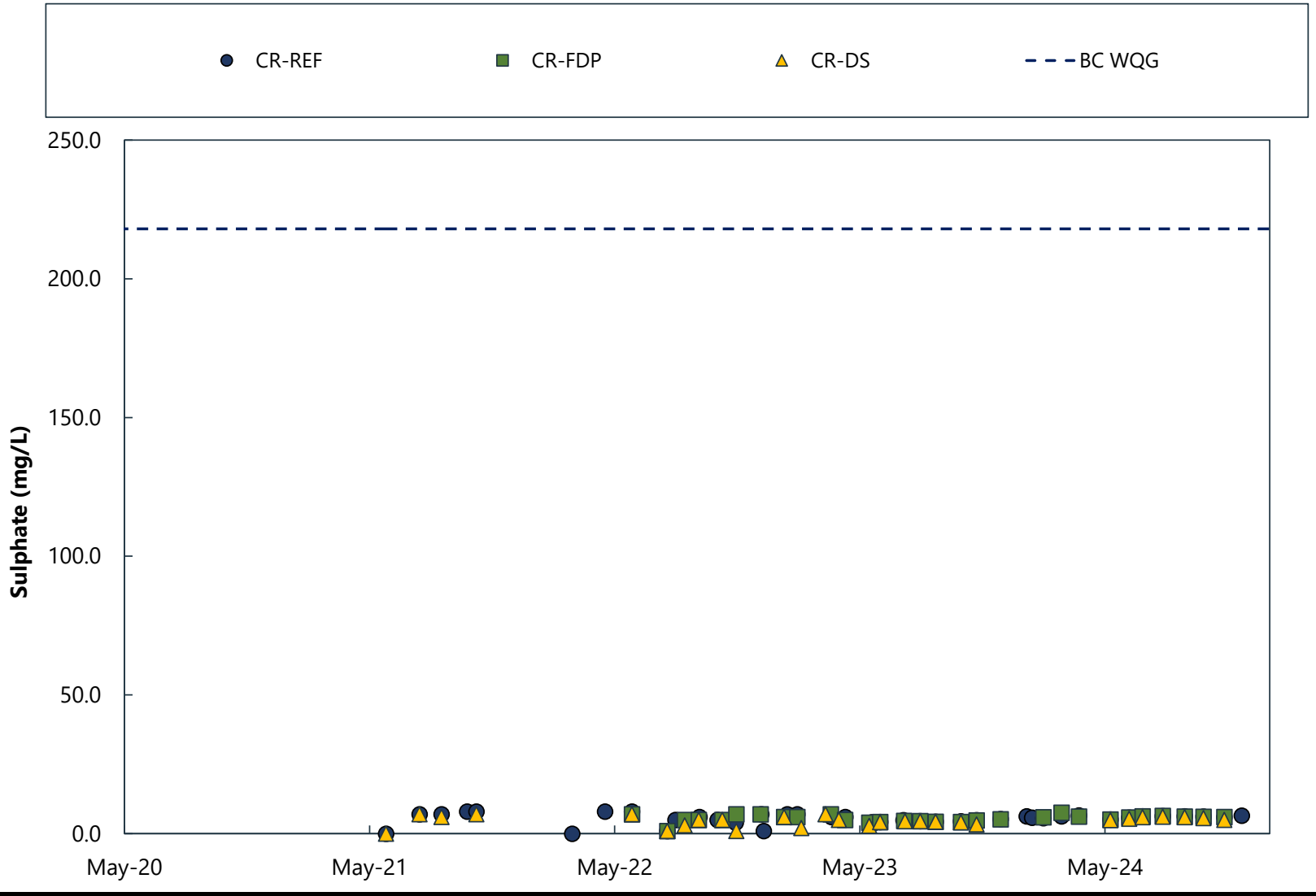
Notes:

Total Dissolved Solids - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-2



Notes:

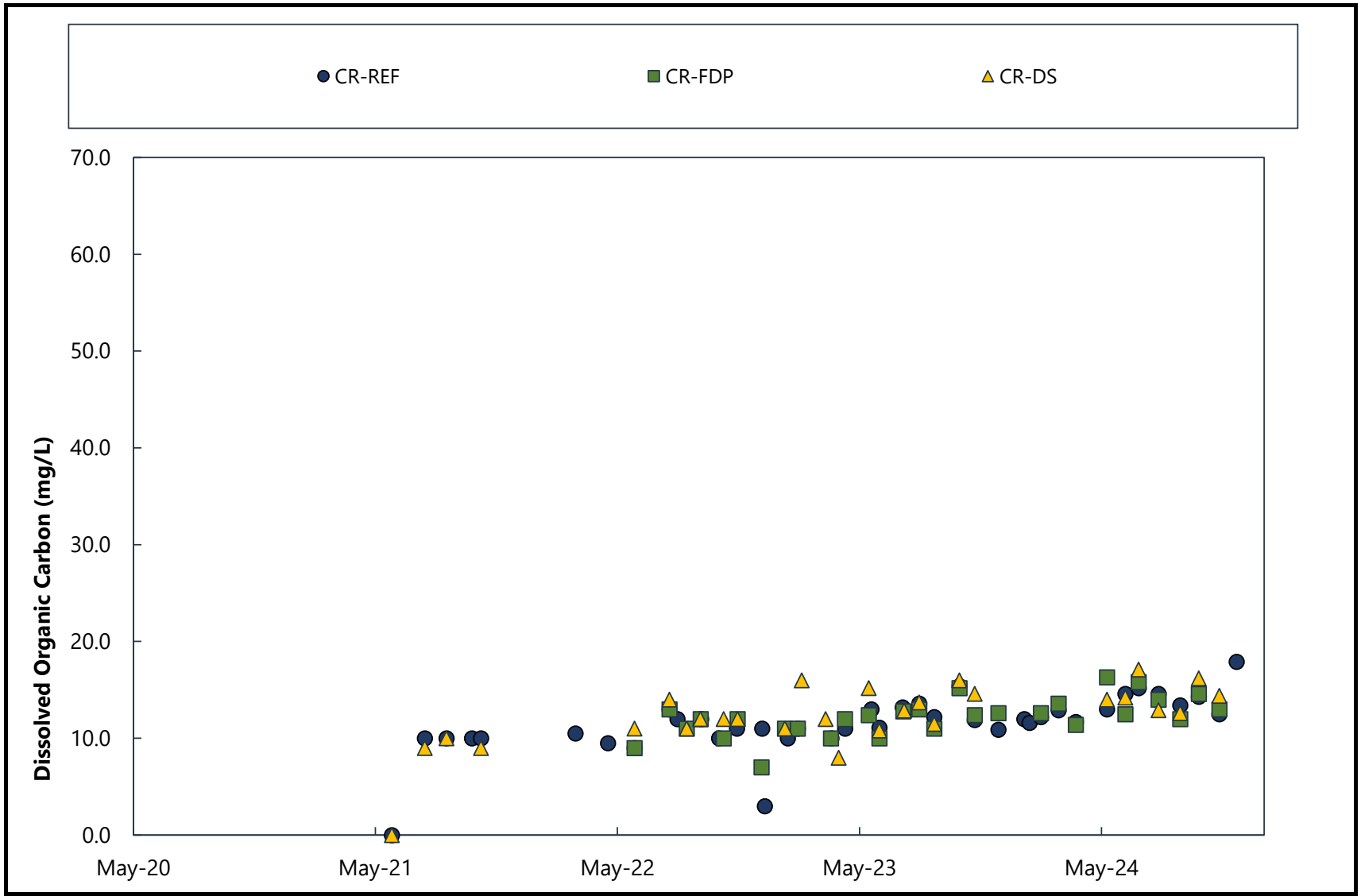
1. BC WQG: British Columbia long-term exposure guidelines (freshwater) are accessed here in the absence of Ontario or Federal guidelines

Sulphate - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-3



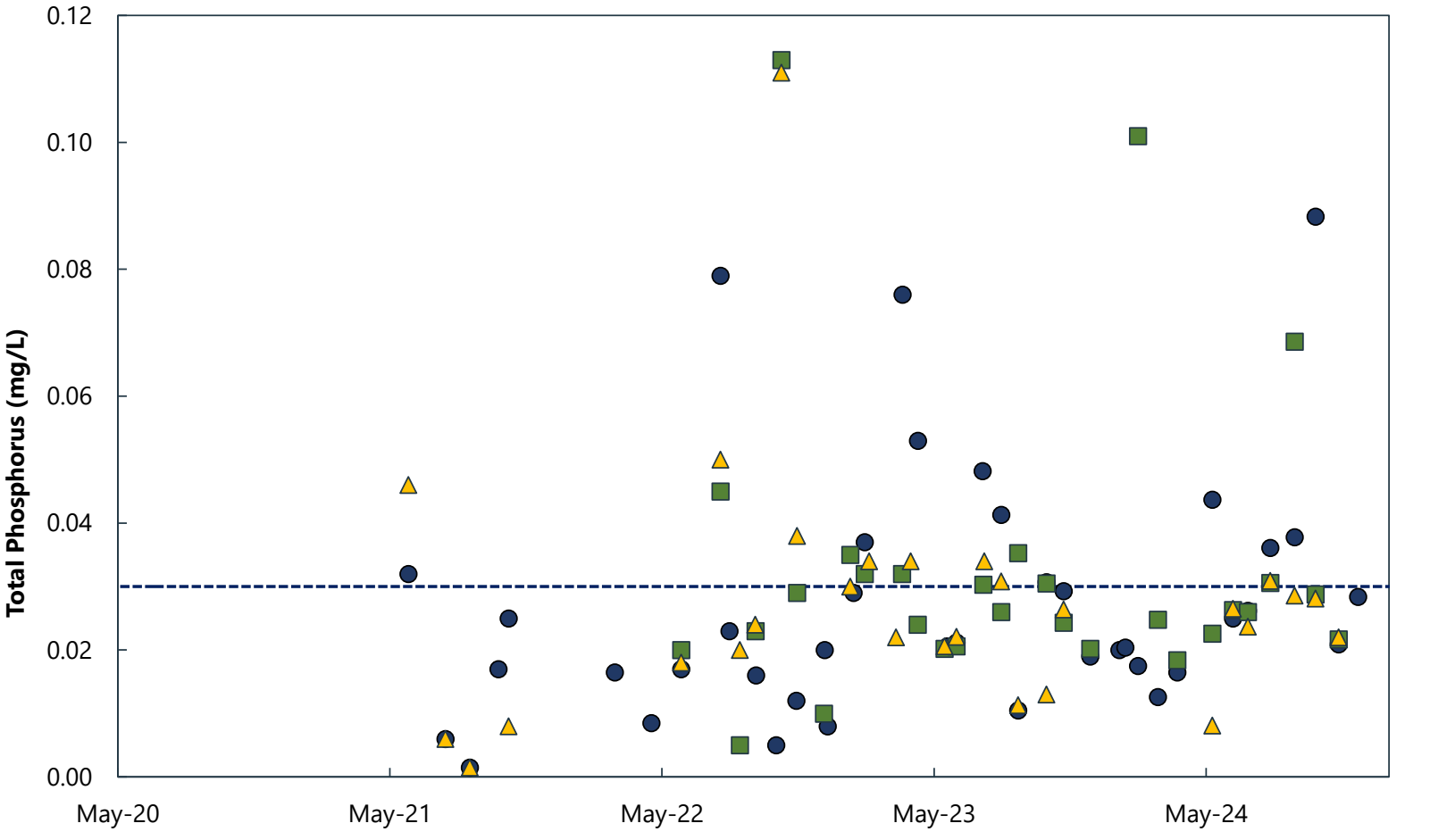
Notes:

Dissolved Organic Carbon - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-4



Notes:

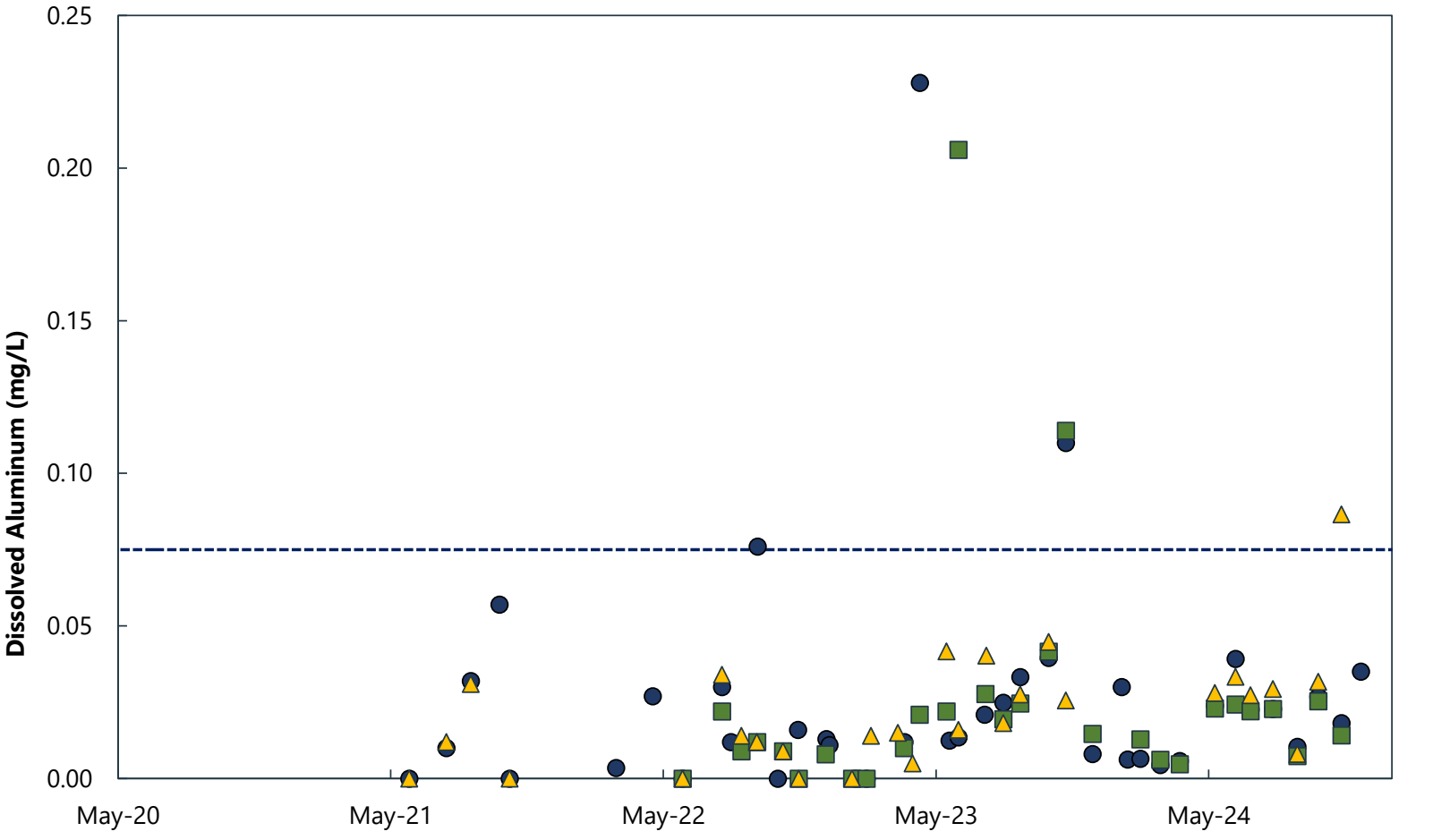
1. iPWQO: interim Provincial Water Quality Objective
2. Total P shown is from colourmetric analysis

Phosphorus - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-5



Notes:

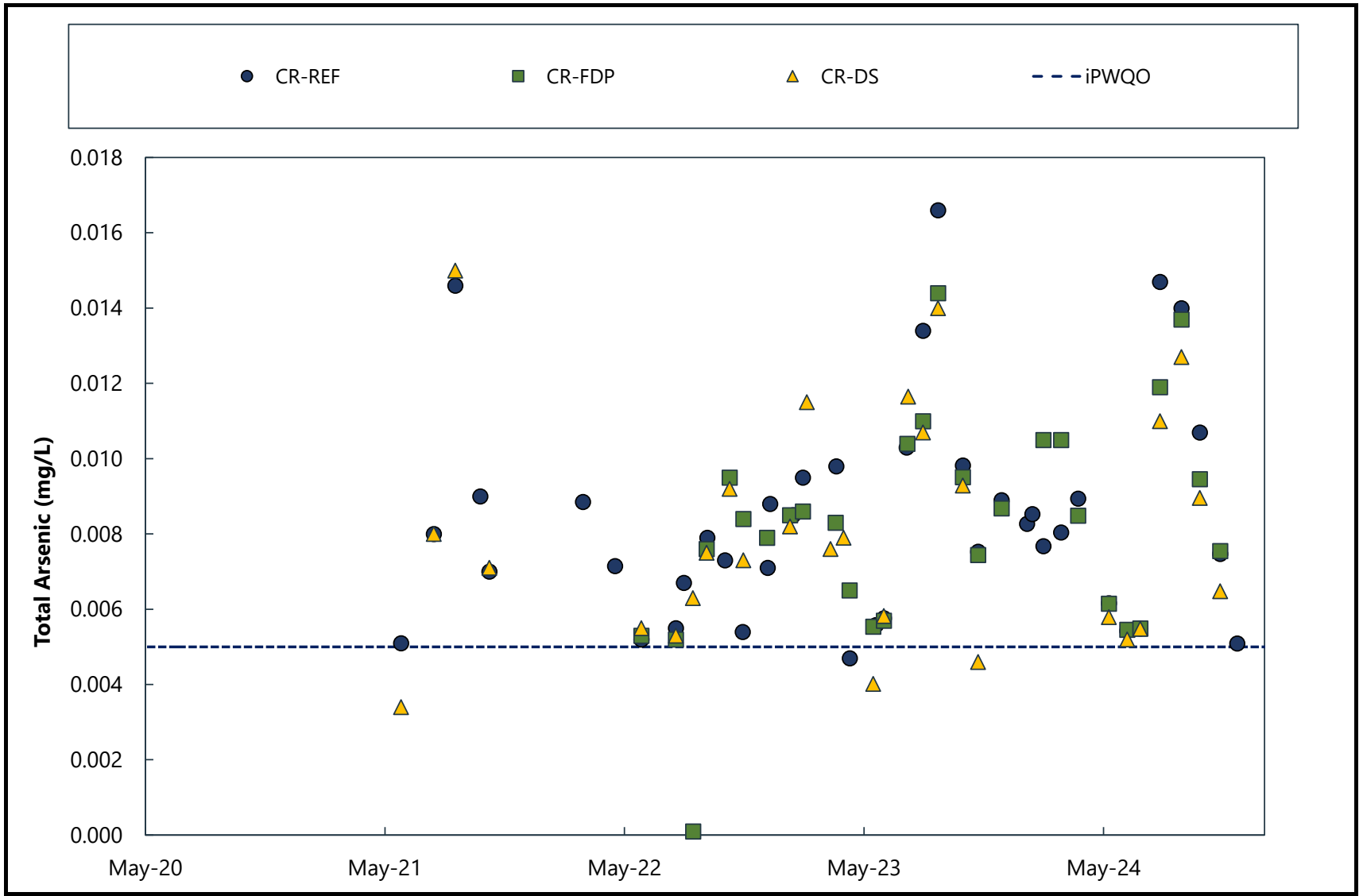
1. iPWQO: interim Provincial Water Quality Objective

Dissolved Aluminum - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-6



Notes:

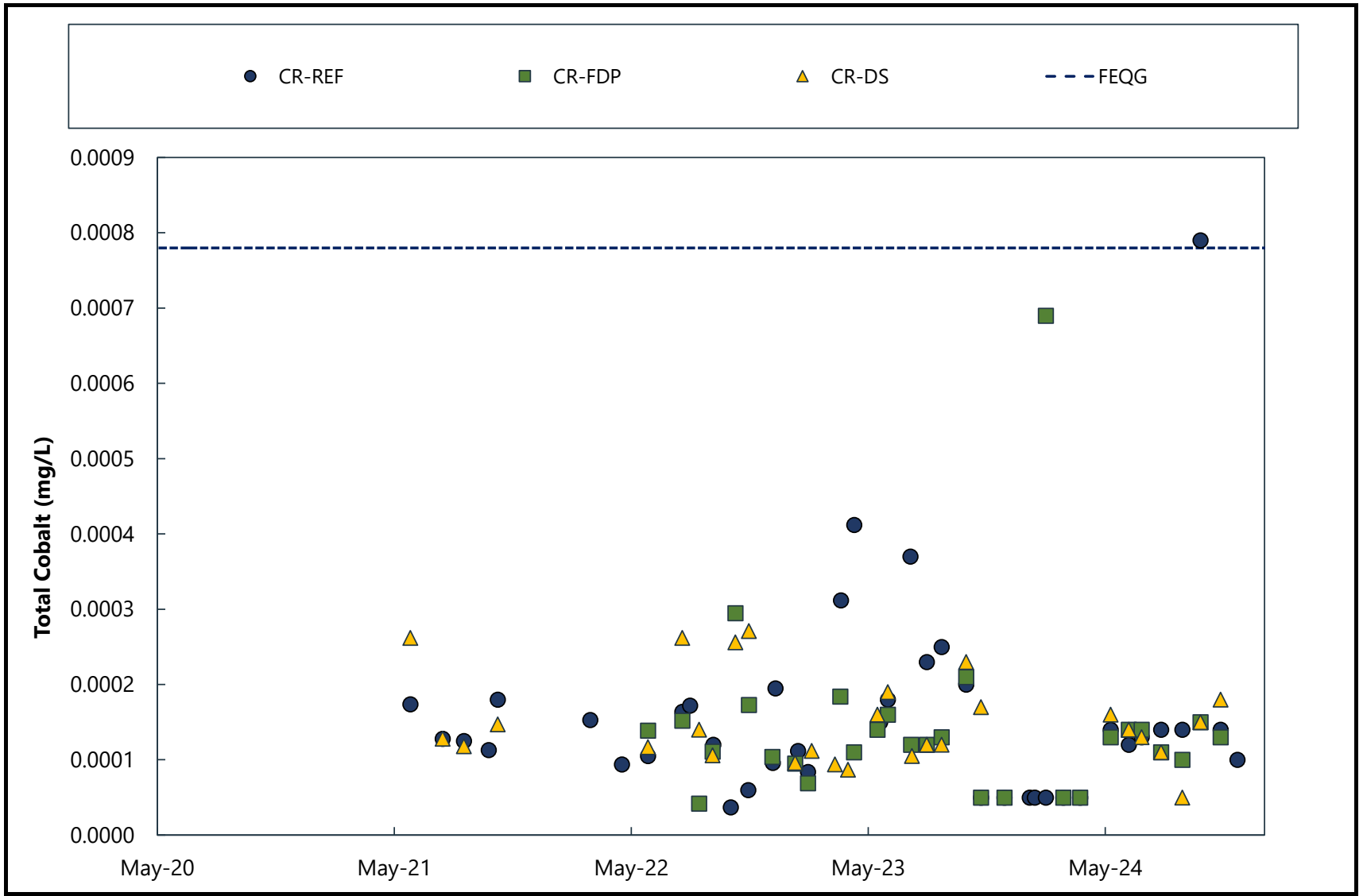
1. iPWQO: interim Provincial Water Quality Objective

Total Arsenic - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-7



Notes:

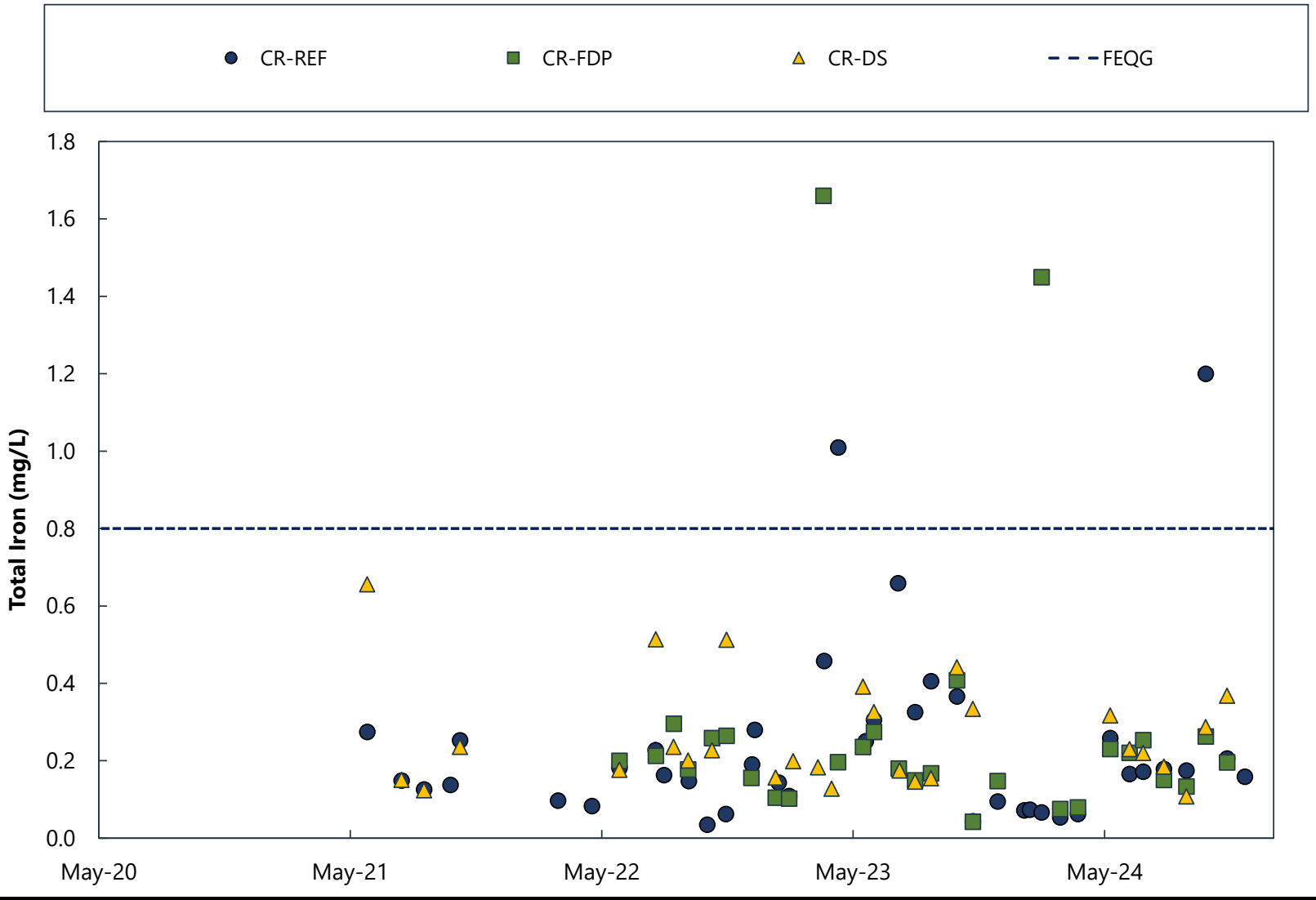
1. FEQG: Federal Environmental Quality Guidelines

Total Cobalt - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-8



Notes:

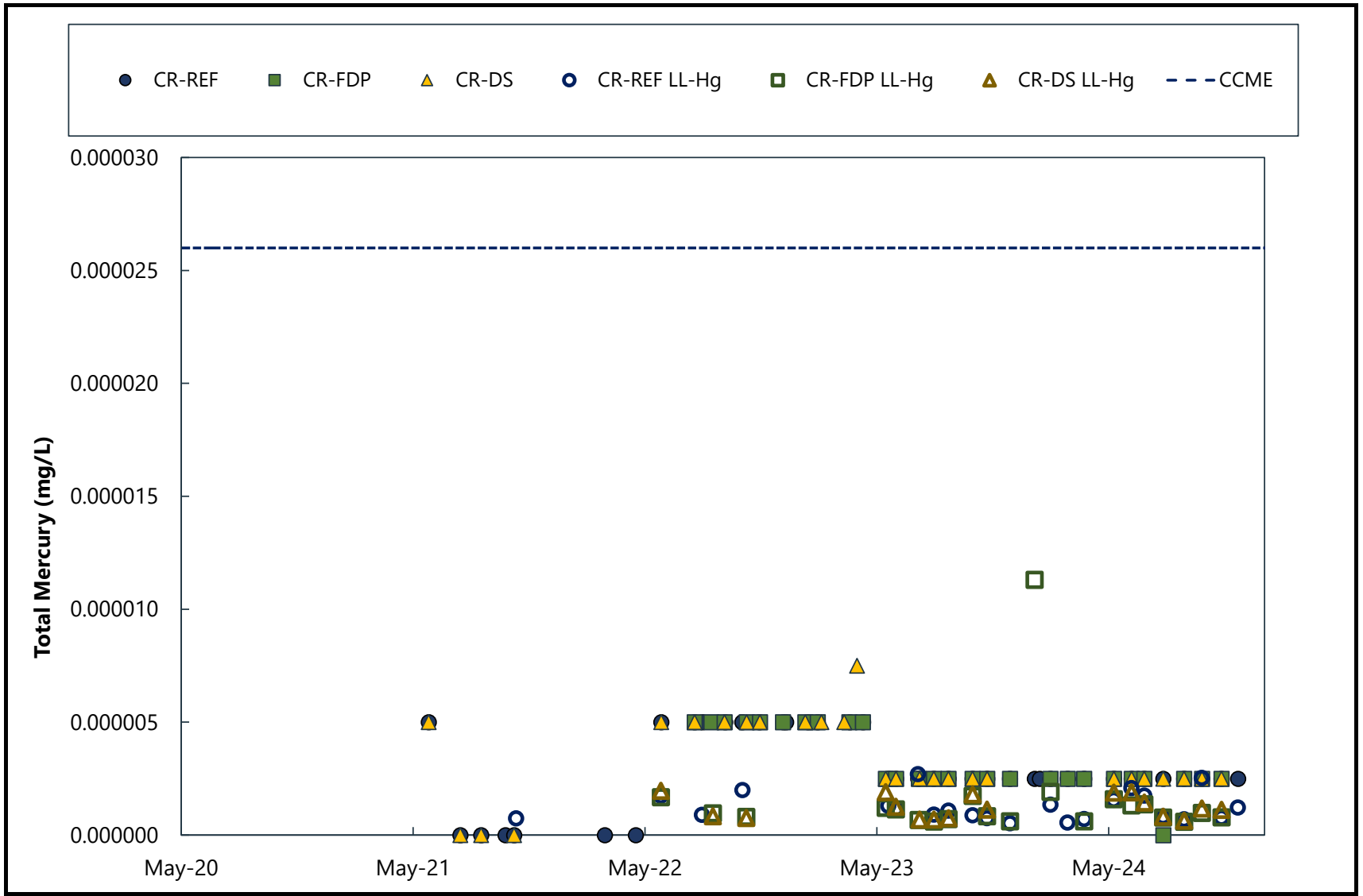
1. FEQG: Federal Environmental Quality Guidelines
2. FEQG calculated to be 0.8 mg/L

Total Iron - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-9



Notes:

1. CCME: Canadian Council of Ministers of the Environment

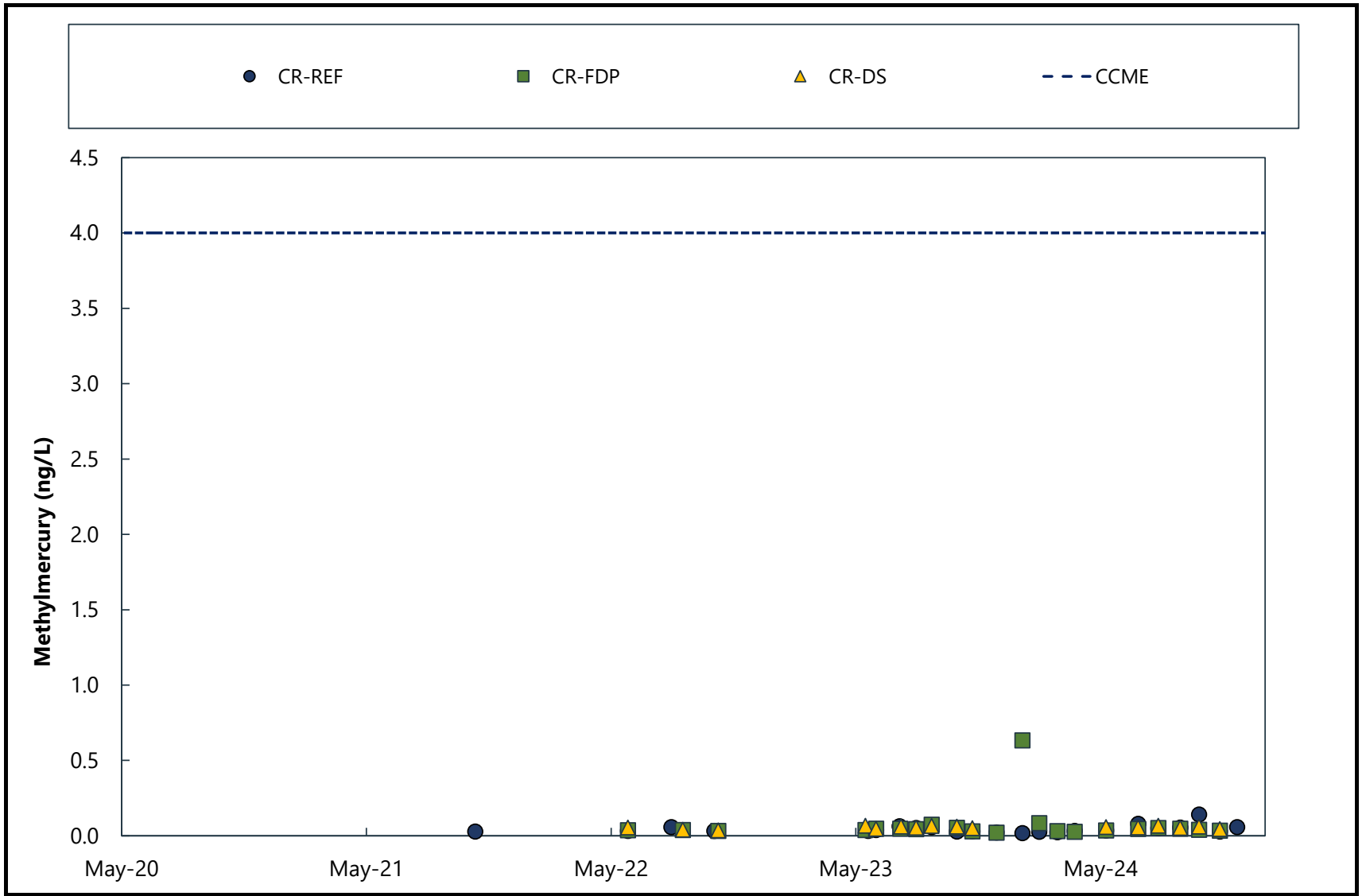
2. A CR-DS outlier (0.00005 mg/L Hg-T) was observed on August 23,2022. It has been removed from graphs for visual clarity but remains in the summary statistics

Total Mercury - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-10



Notes:

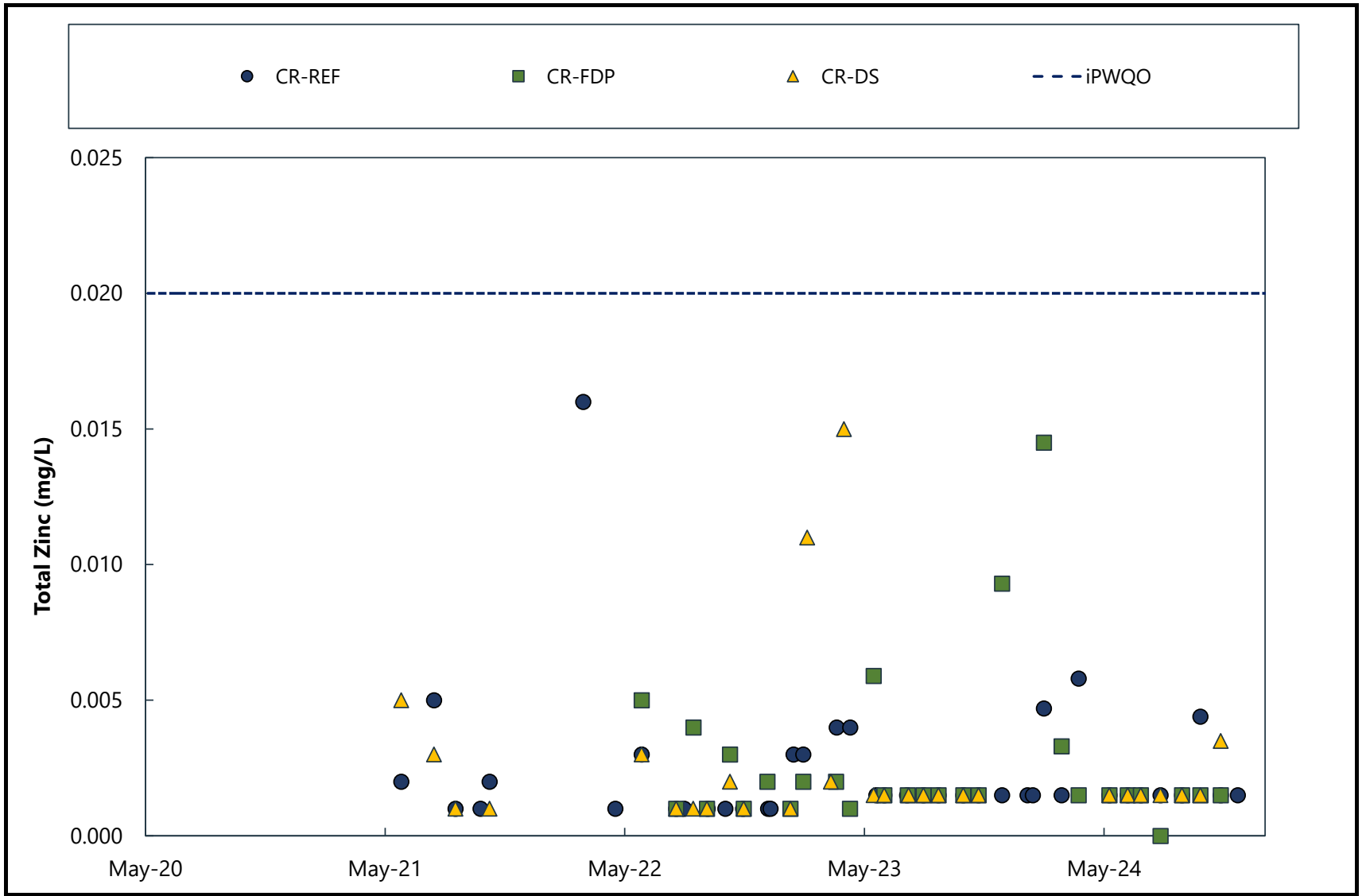
1. CCME: Canadian Council of Ministers of the Environment

Methylmercury - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-11



Notes:

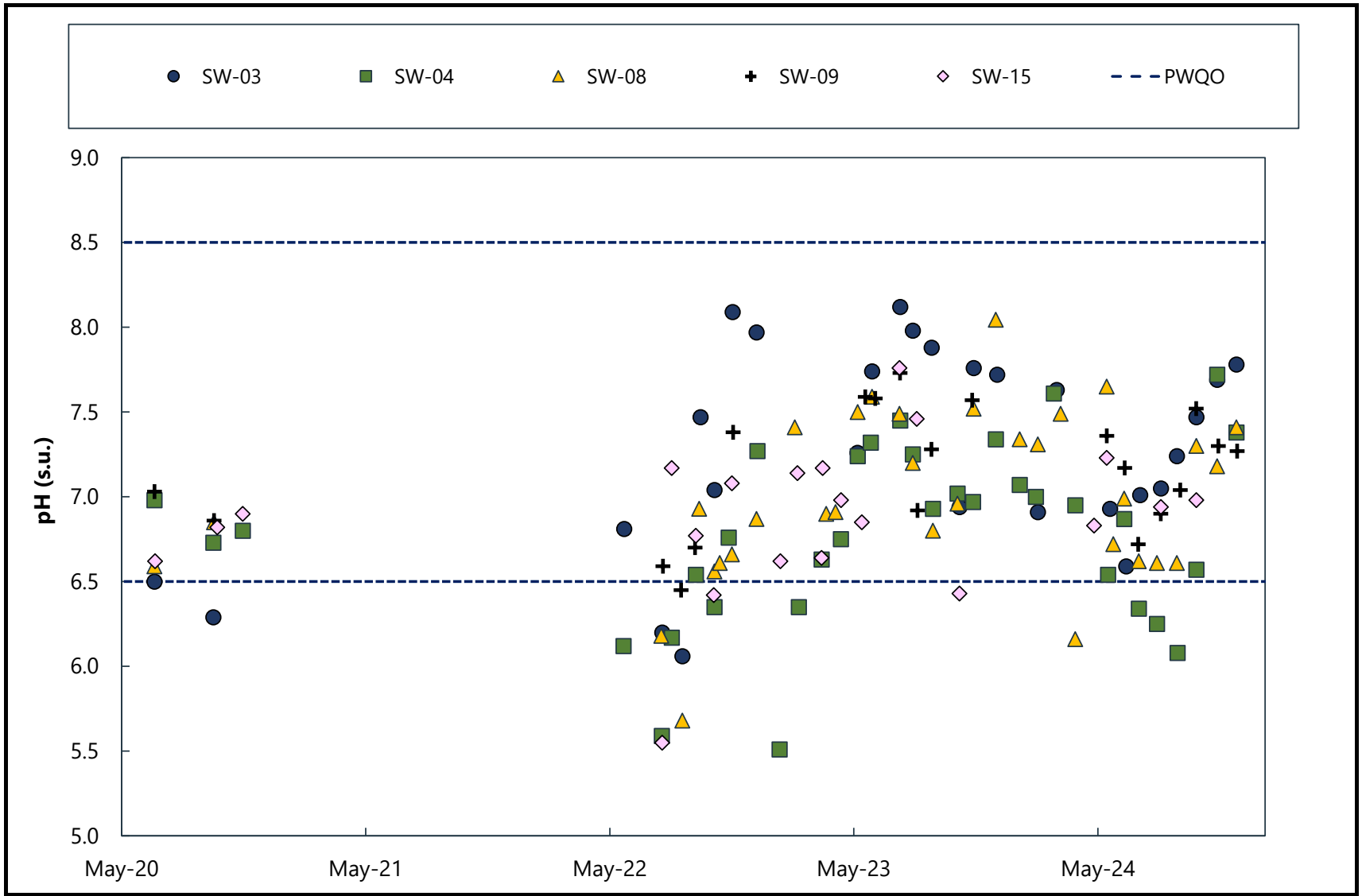
1. iPWQO: interim Provincial Water Quality Objective

Total Zinc - Chukuni River

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-12



Notes:

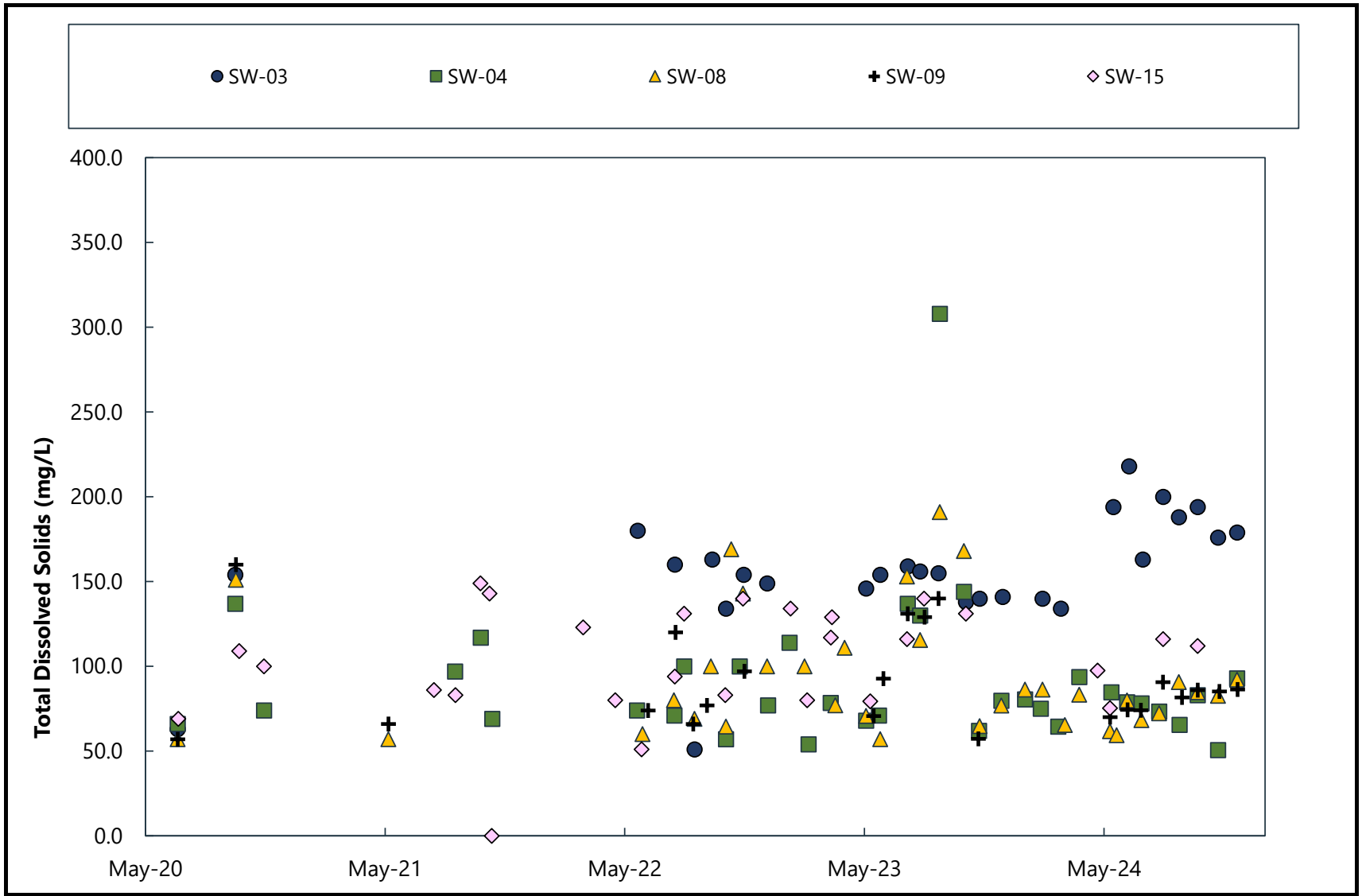
1. PWQO: Provincial Water Quality Objectives
2. pH shown is field pH.

Field pH - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-13



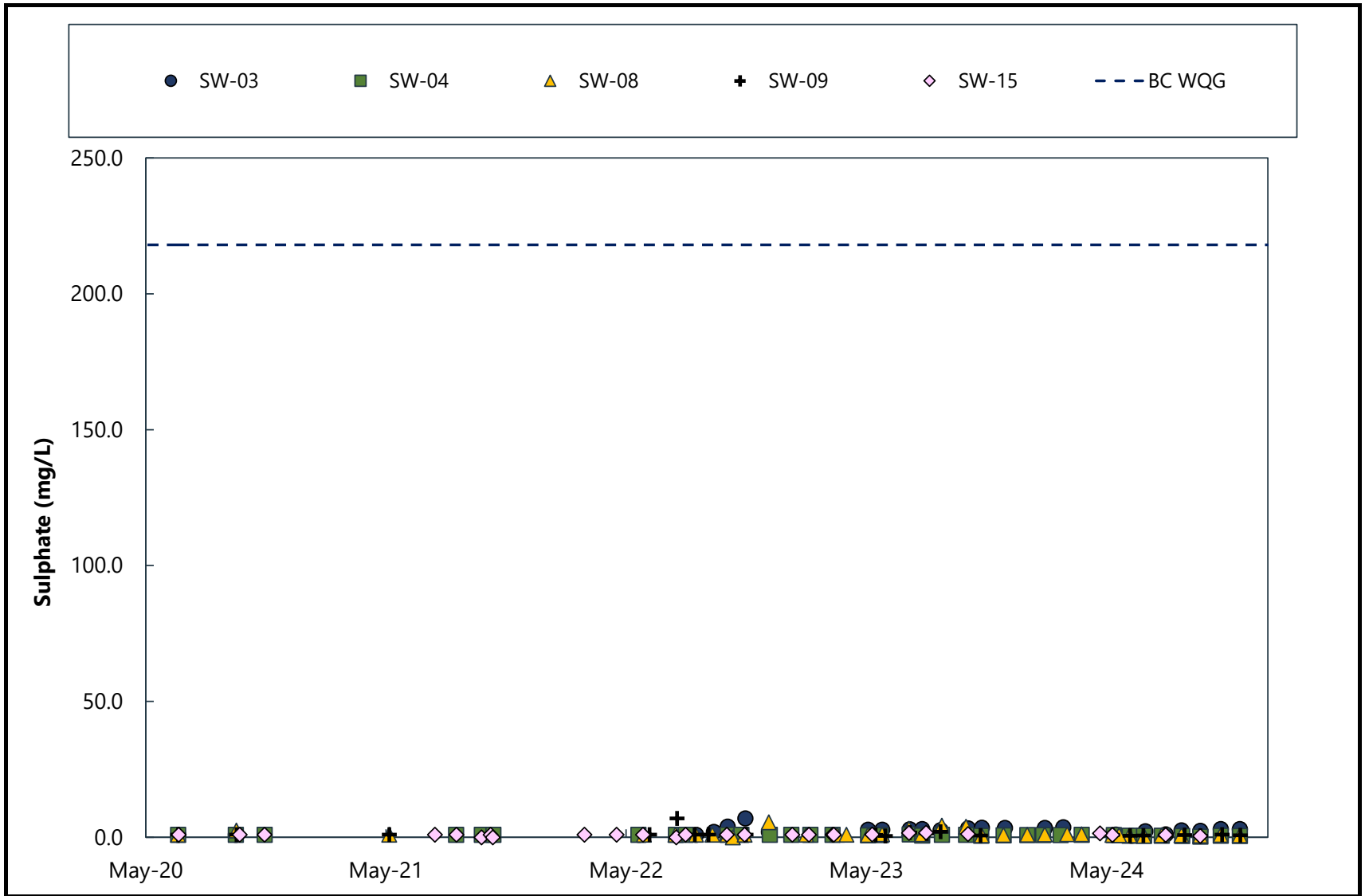
Notes:

Total Dissolved Solids - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-14



Notes:

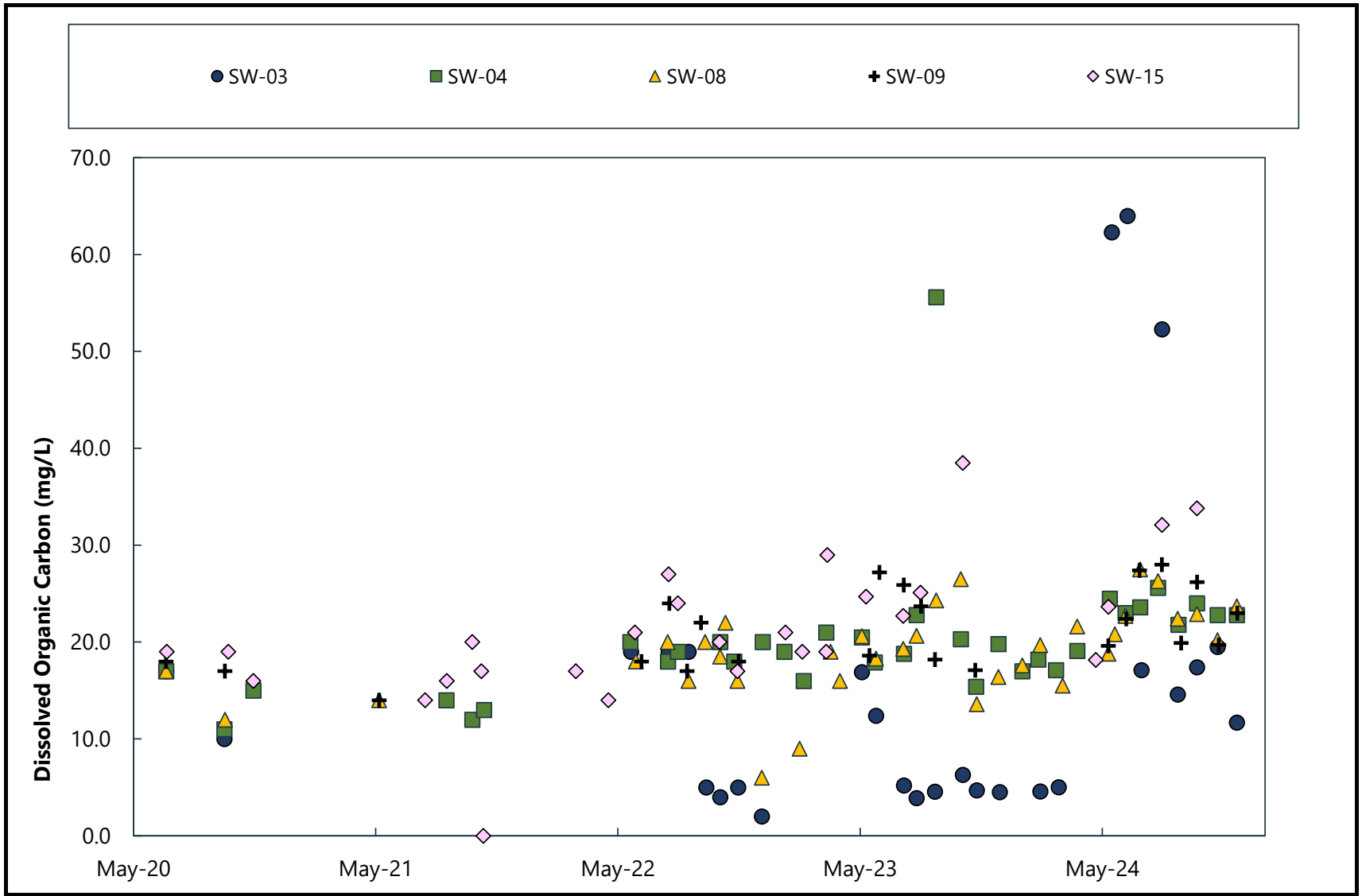
1. BC WQG: British Columbia long-term exposure guidelines (freshwater) are accessed here in the absence of Ontario or Federal guidelines

Sulphate - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-15



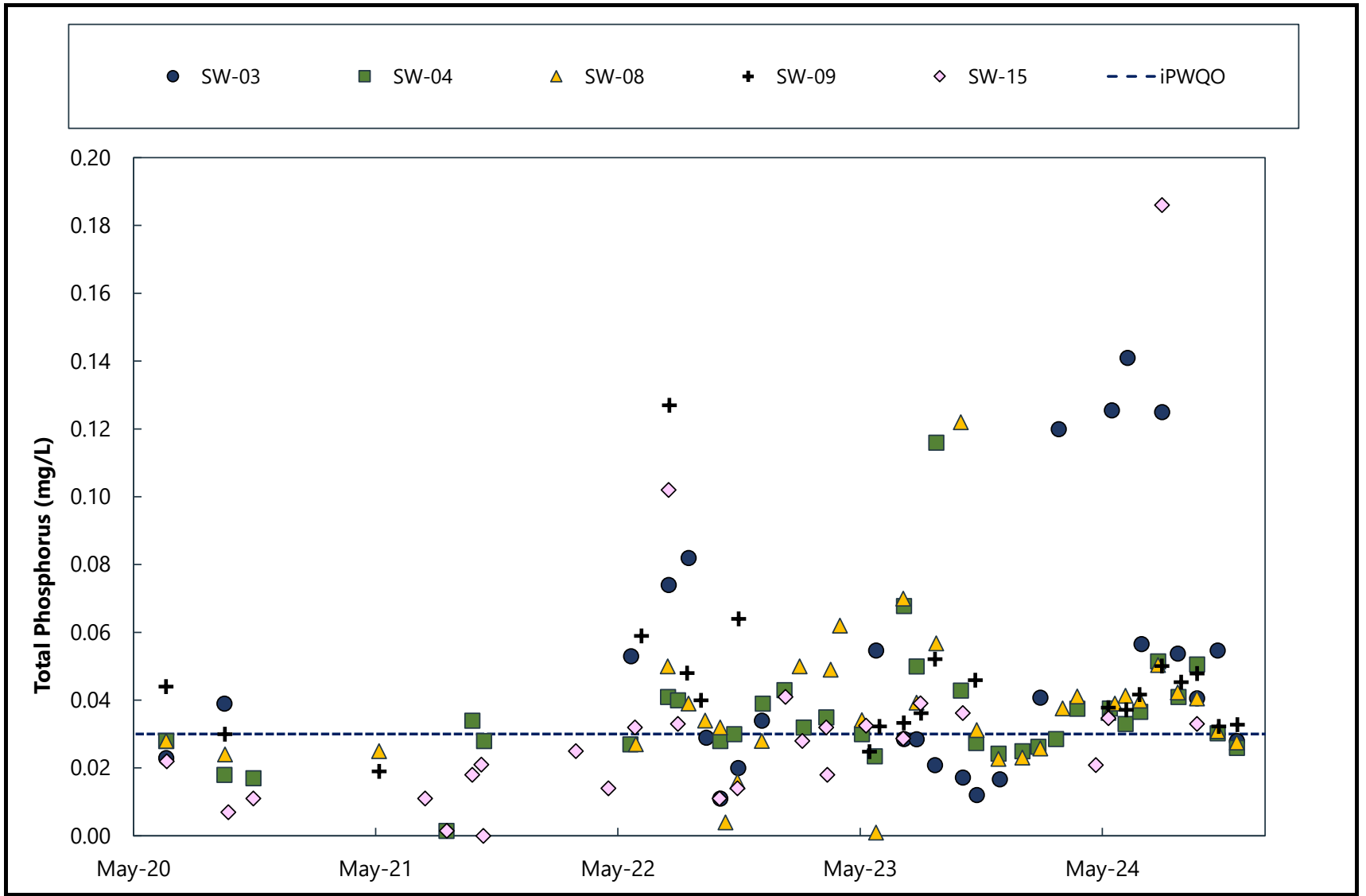
Notes:

Dissolved Organic Carbon - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-16



Notes:

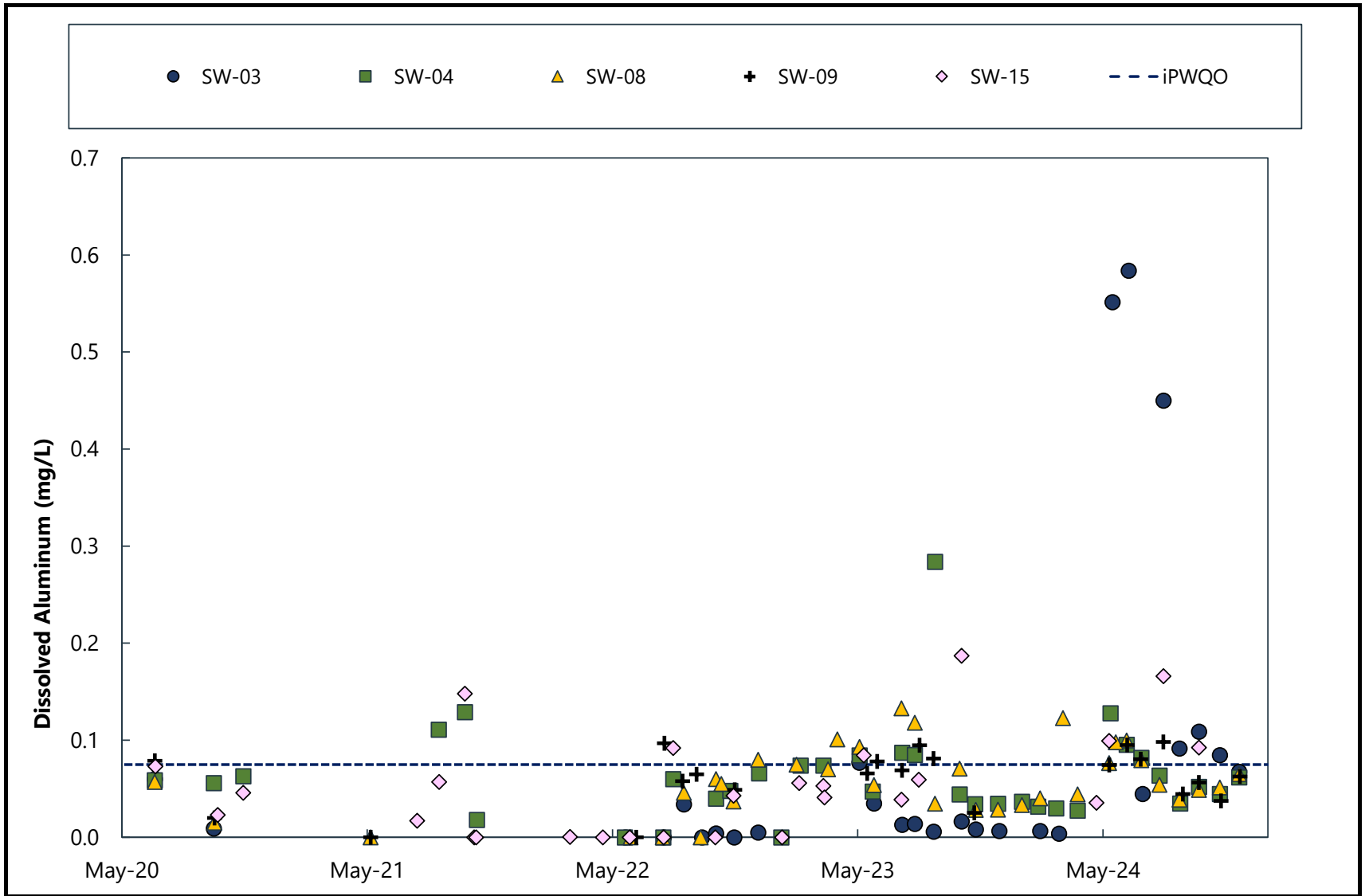
1. iPWQO: interim Provincial Water Quality Objective
2. Total P shown is from colourmetric analysis

Phosphorus - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-17



Notes:

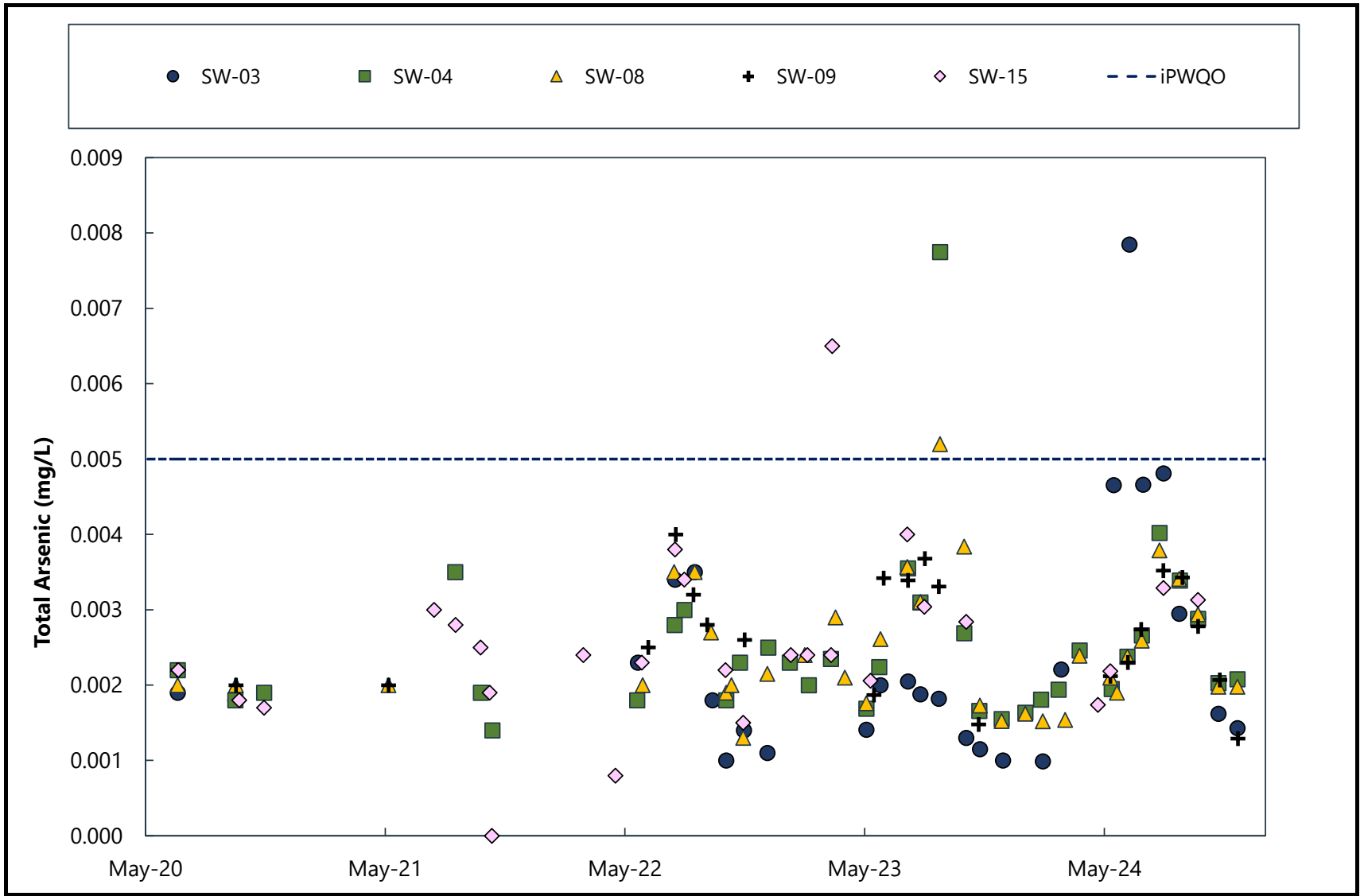
1. iPWQO: interim Provincial Water Quality Objective

Dissolved Aluminum - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-18



Notes:

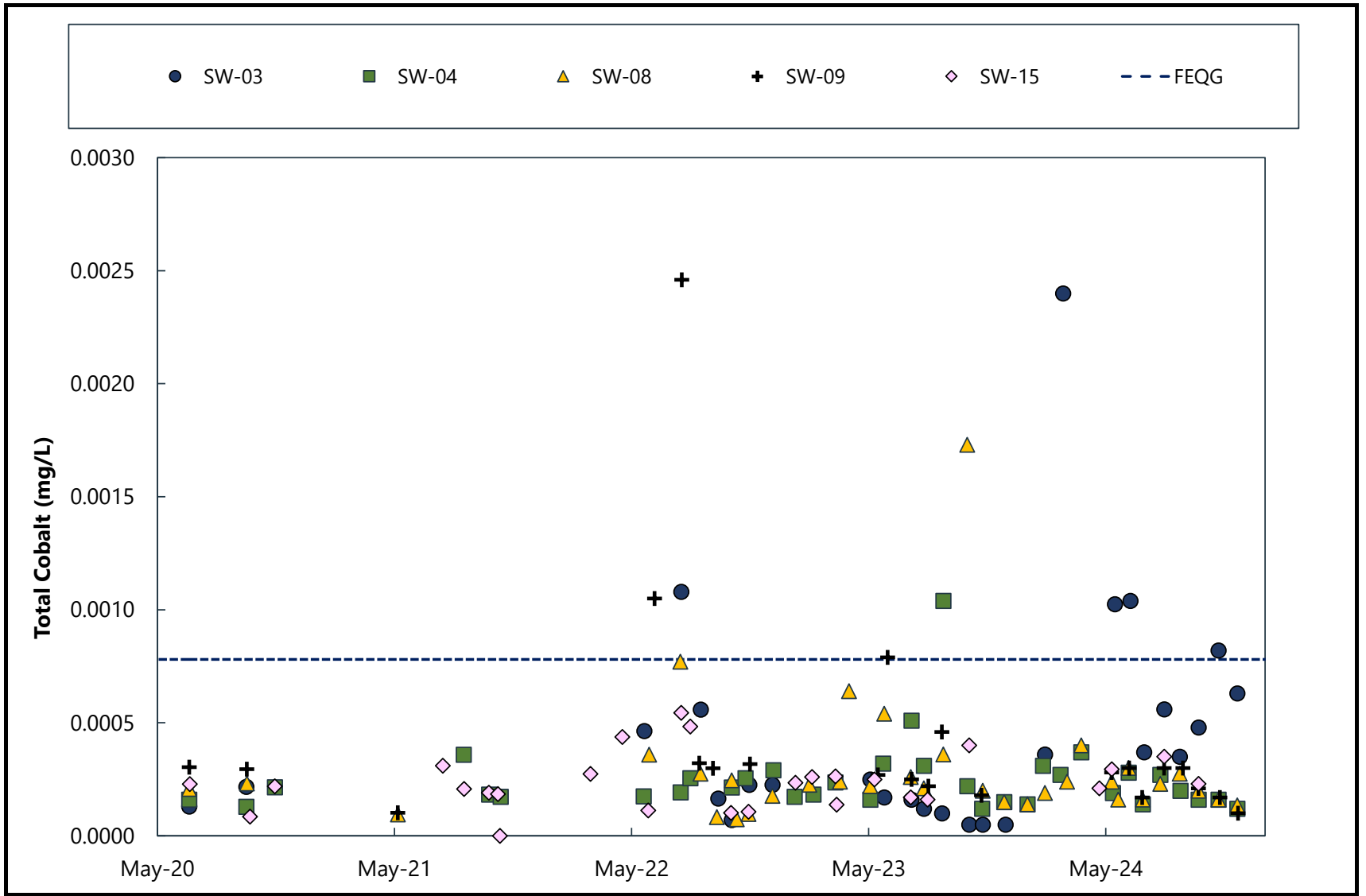
1. iPWQO: interim Provincial Water Quality Objective

Total Arsenic - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-19



Notes:

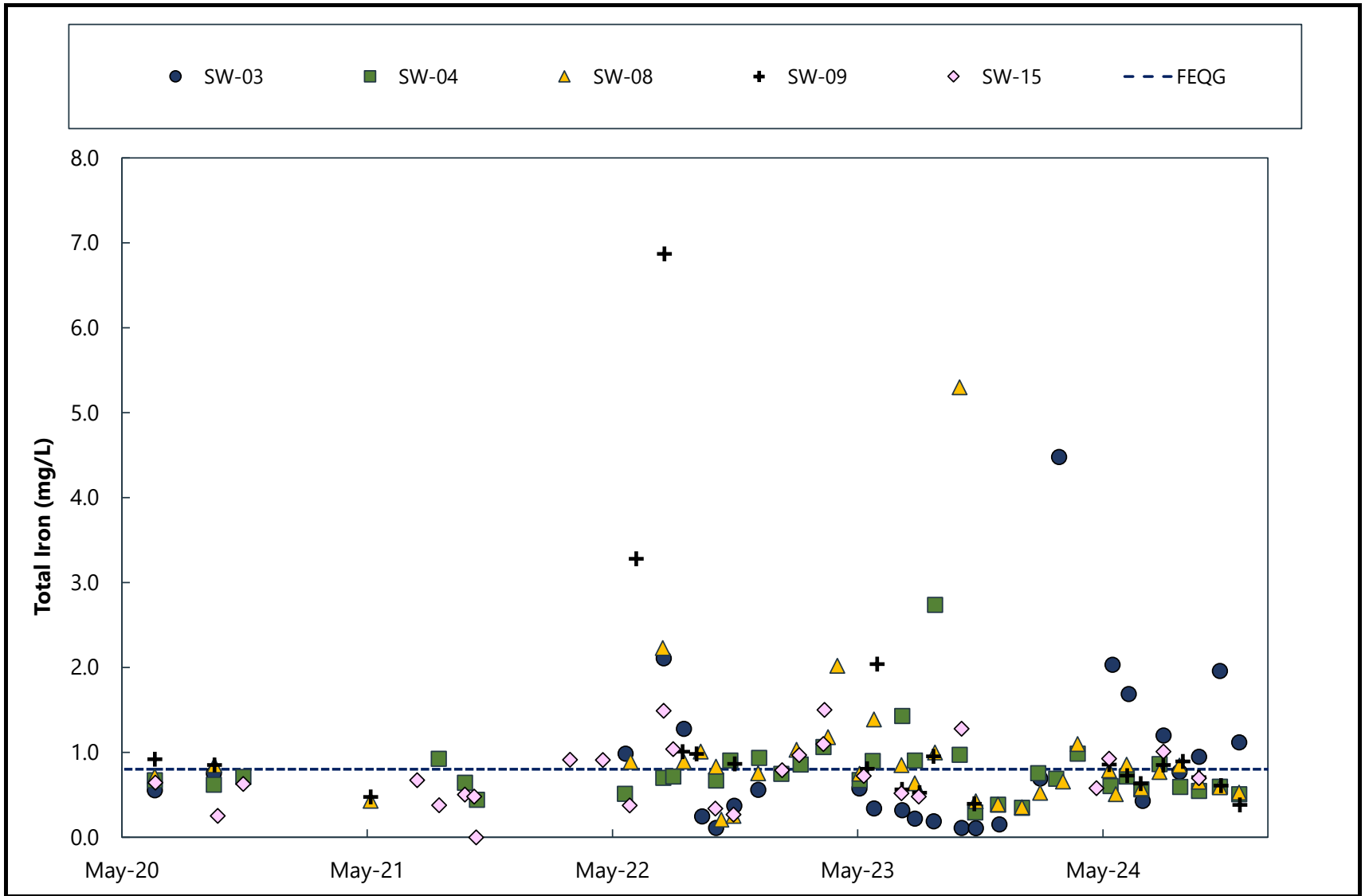
1. FEQG: Federal Environmental Quality Guidelines

Total Cobalt - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-20



Notes:

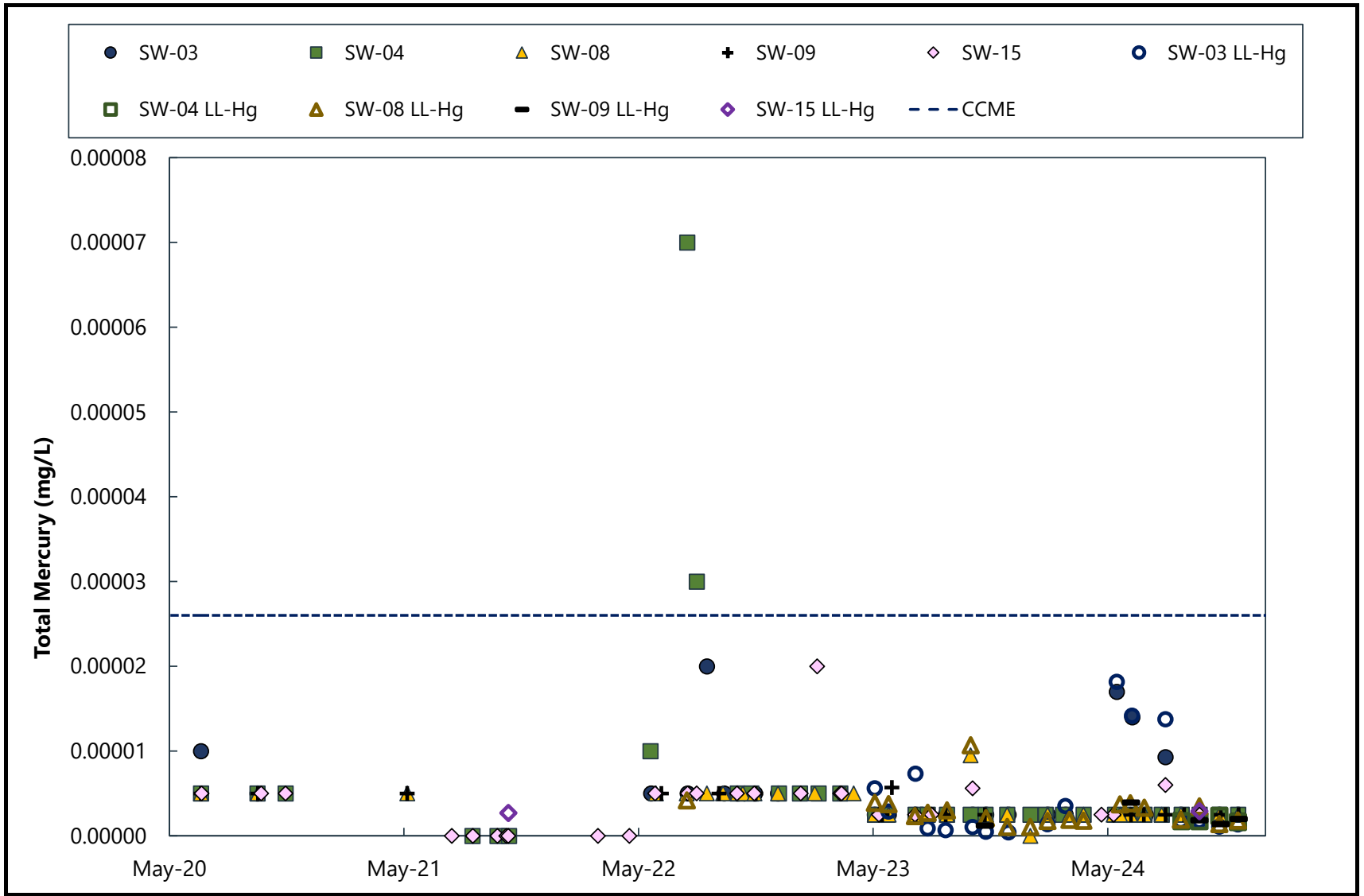
1. FEQG: Federal Environmental Quality Guidelines
2. FEQG calculated to be 0.8 mg/L

Total Iron - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-21



Notes:

1. CCME: Canadian Council of Ministers of the Environment

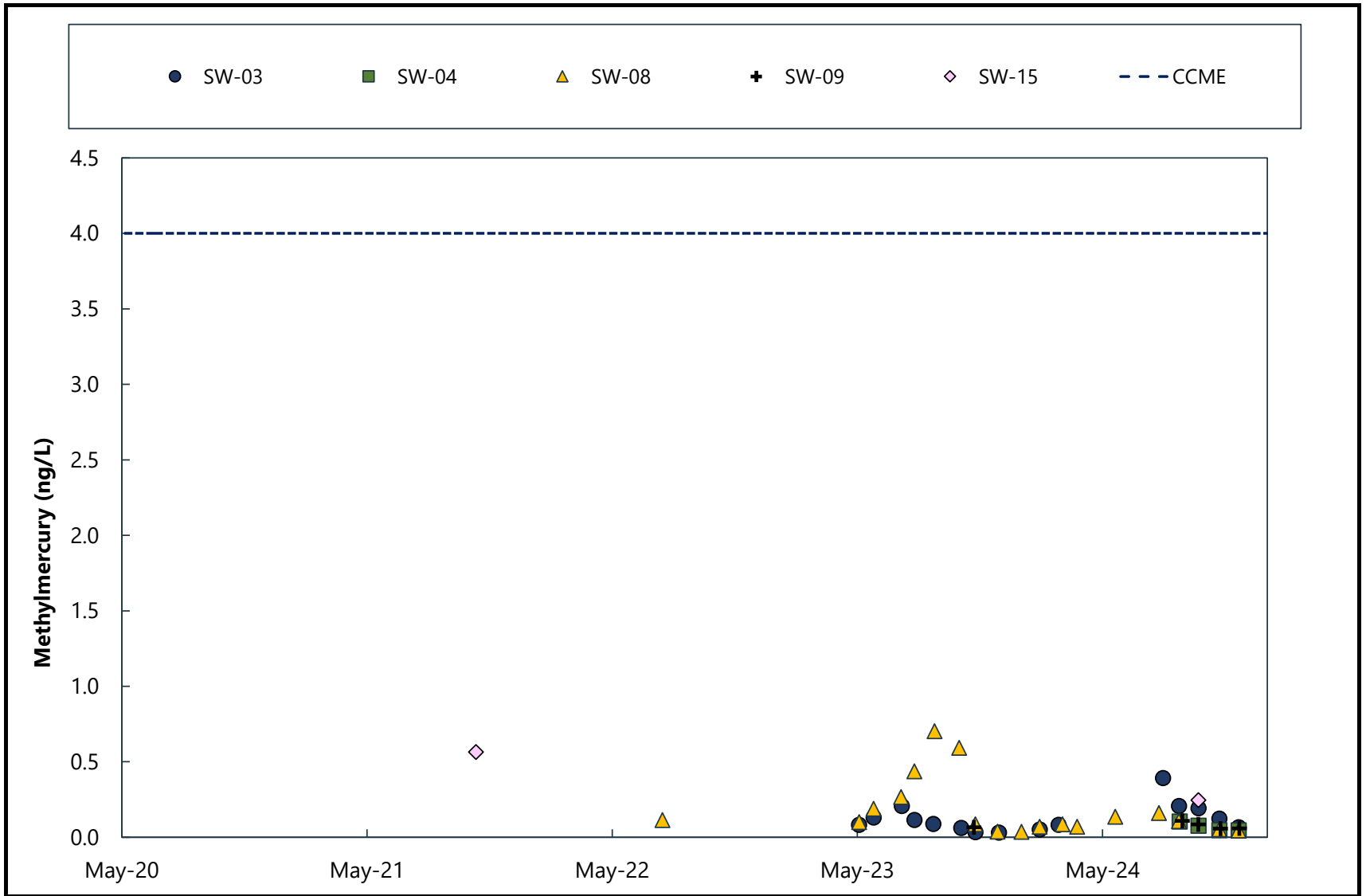
2. An SW-09 outlier (0.00005 mg/L Hg-T) was observed on August 23,2022. It has been removed from graphs for visual clarity but remains in the summary statistics

Total Mercury - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-22



Notes:

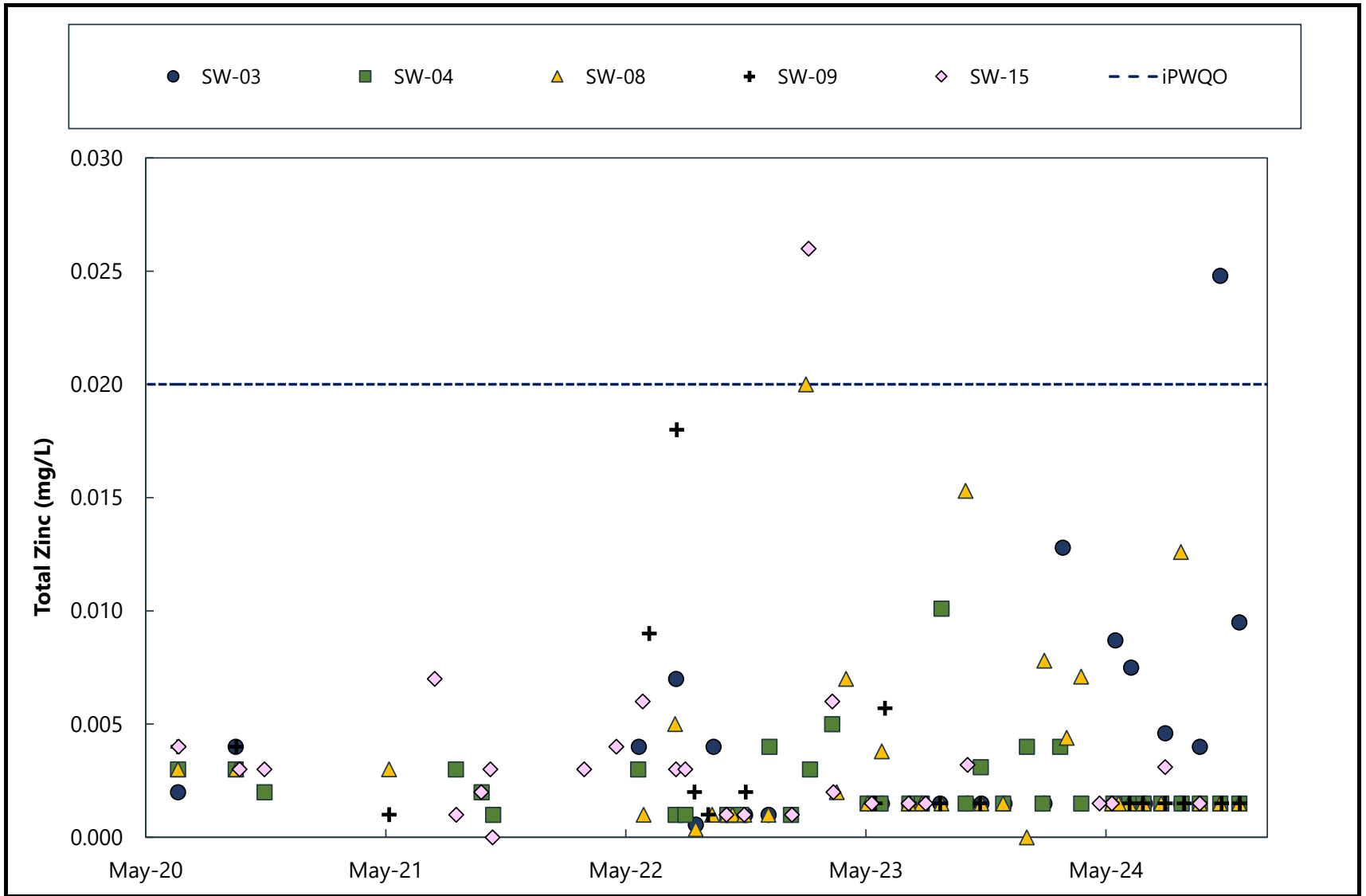
1. CCME: Canadian Council of Ministers of the Environment

Methylmercury - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-23



Notes:

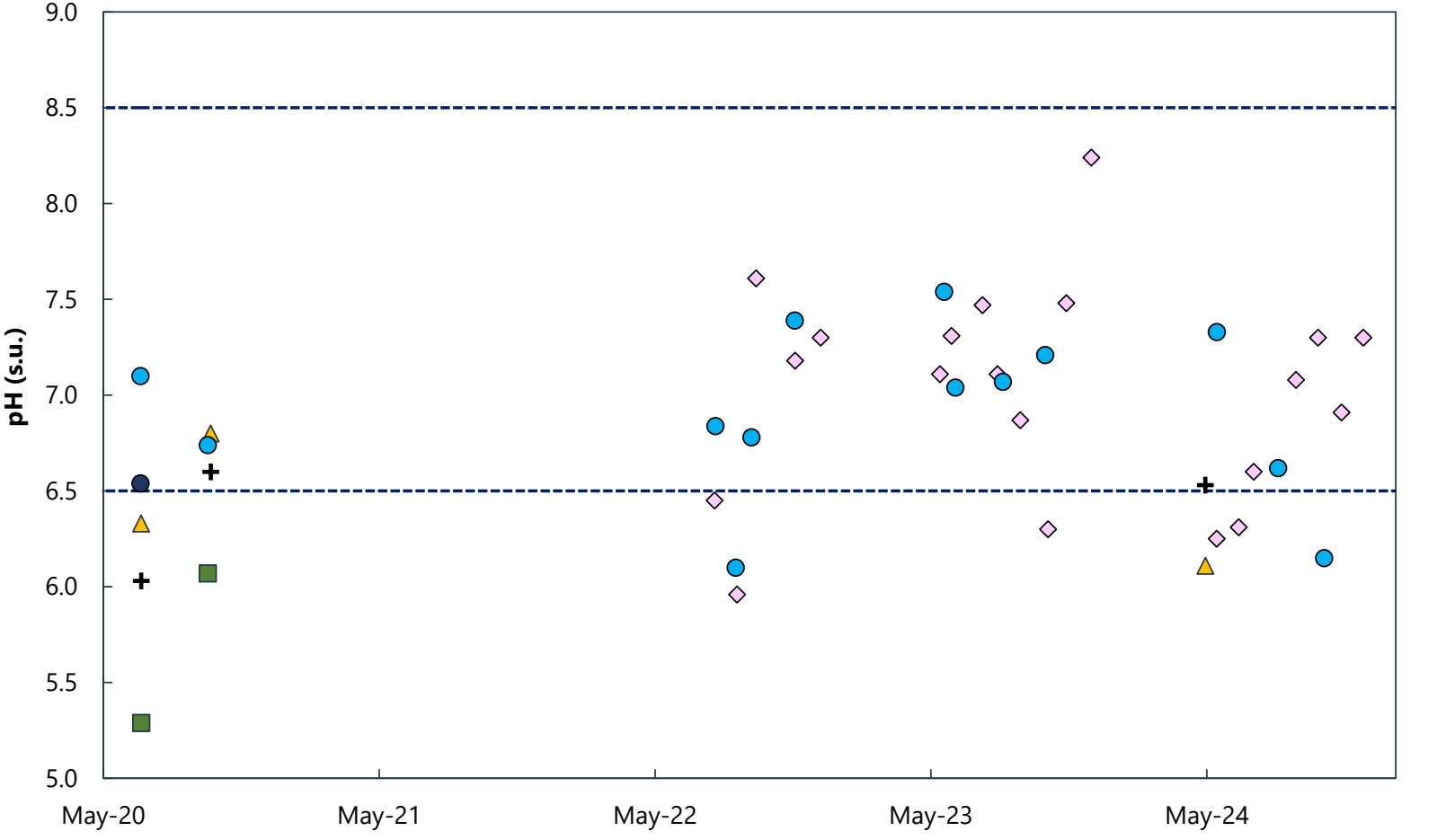
1. iPWQO: interim Provincial Water Quality Objective

Total Zinc - Dixie Creek

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-24



Notes:

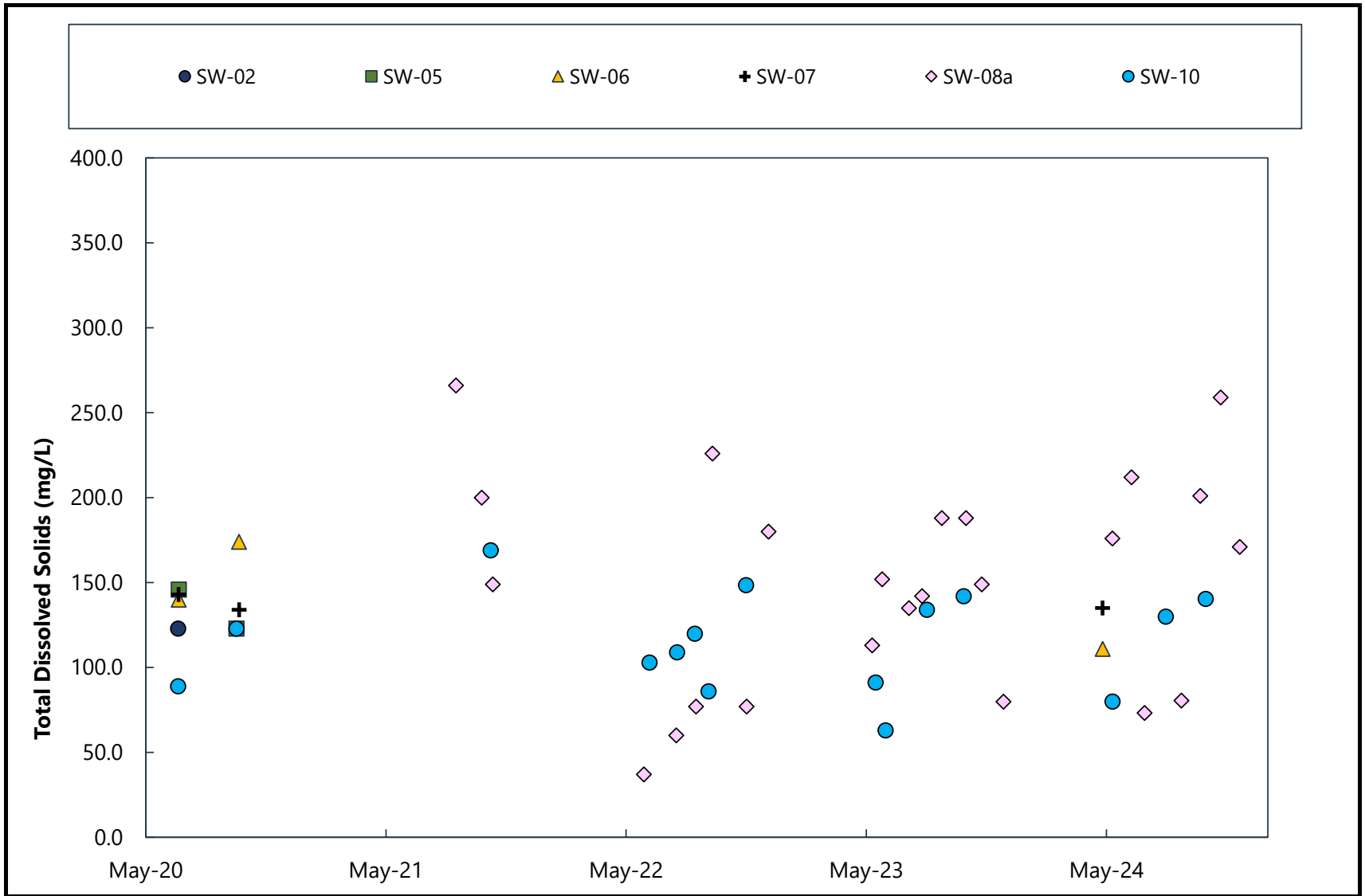
1. PWQO: Provincial Water Quality Objectives
2. pH shown is field pH.

Field pH - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-25



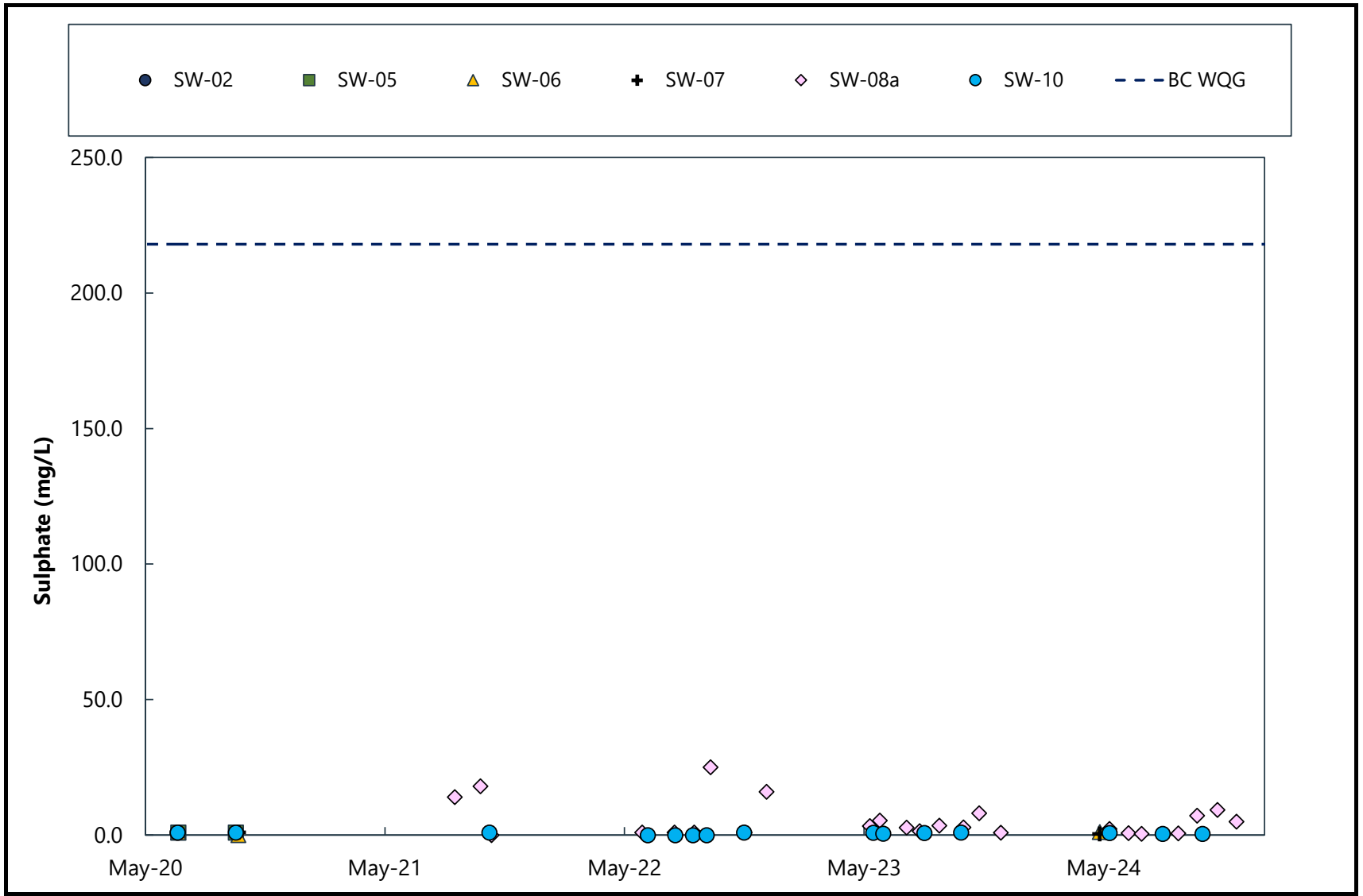
Notes:

Total Dissolved Solids - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-26



Notes:

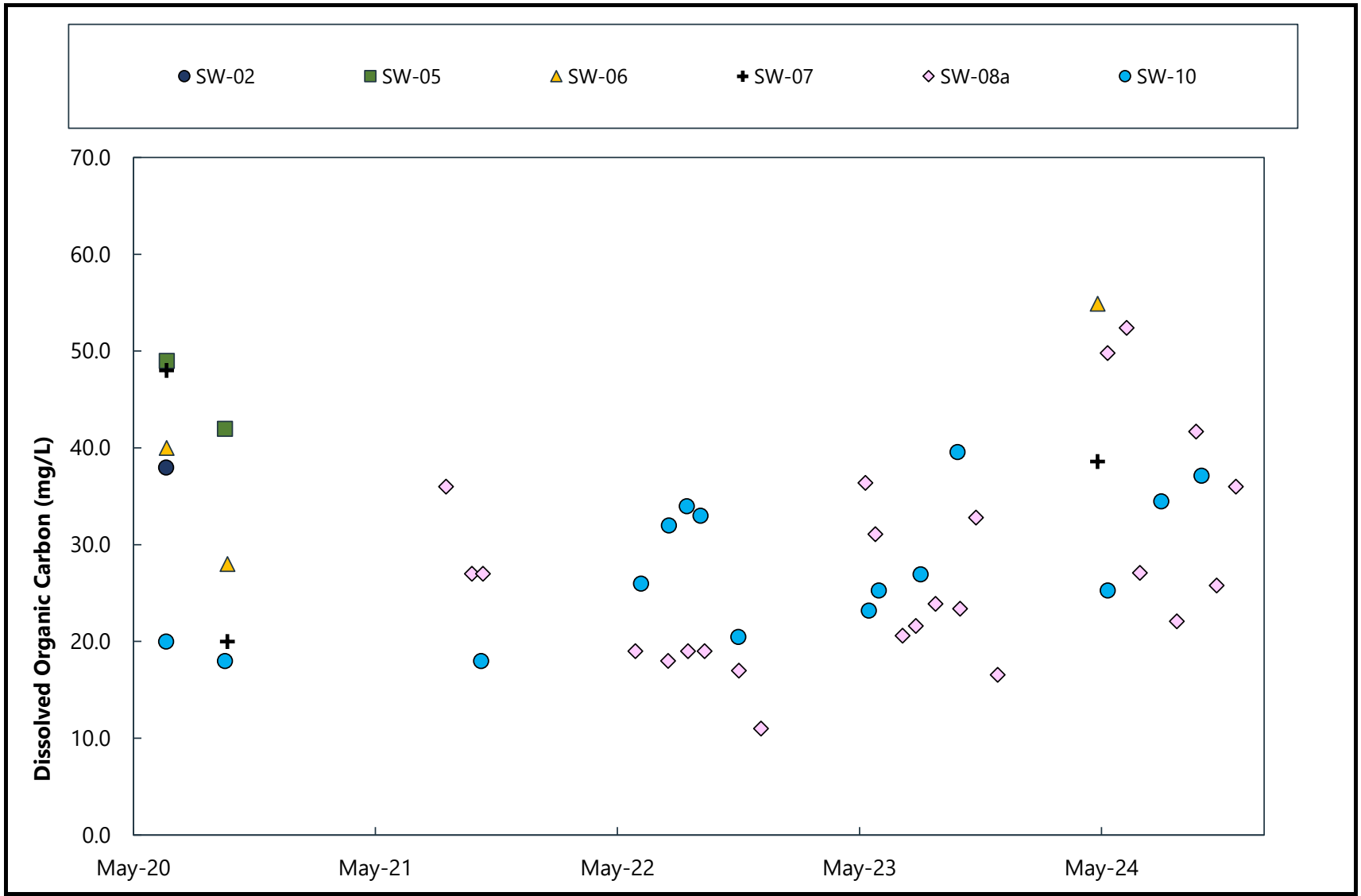
1. BC WQG: British Columbia long-term exposure guidelines (freshwater) are accessed here in the absence of Ontario or Federal guidelines

Sulphate - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-27



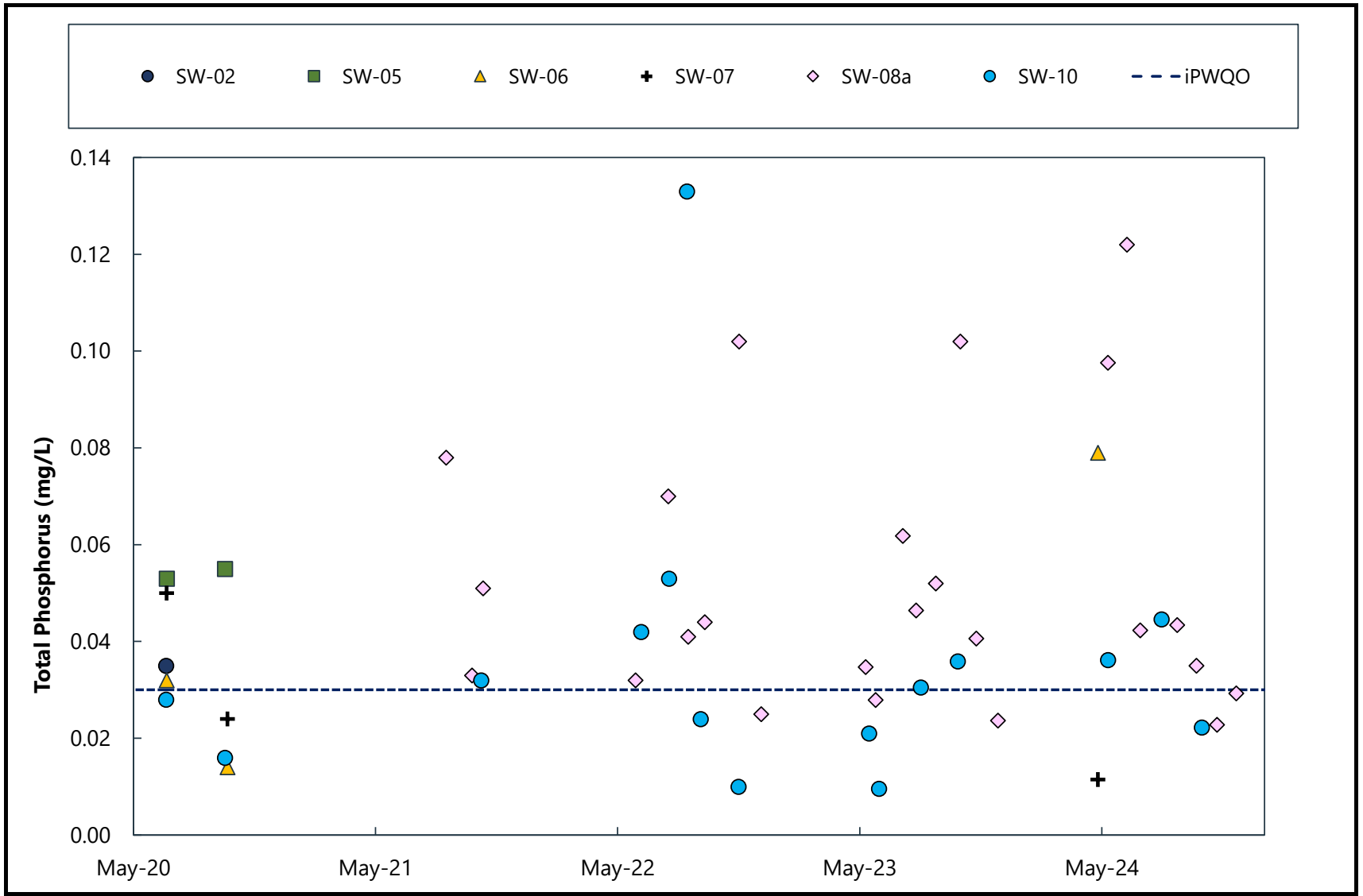
Notes:

Dissolved Organic Carbon - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-28



Notes:

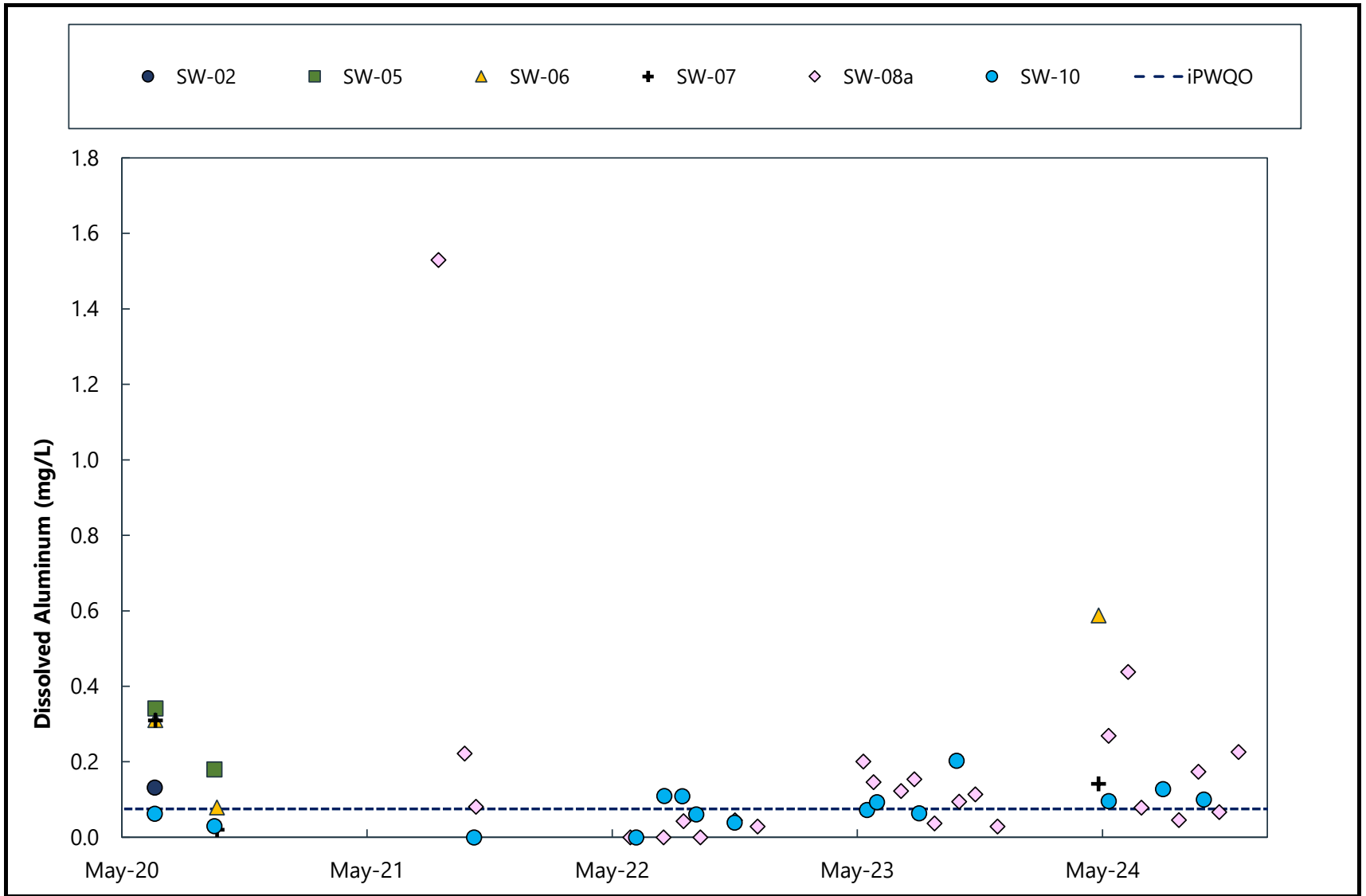
1. iPWQO: interim Provincial Water Quality Objective
2. Total P shown is from colourmetric analysis

Phosphorus - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-29



Notes:

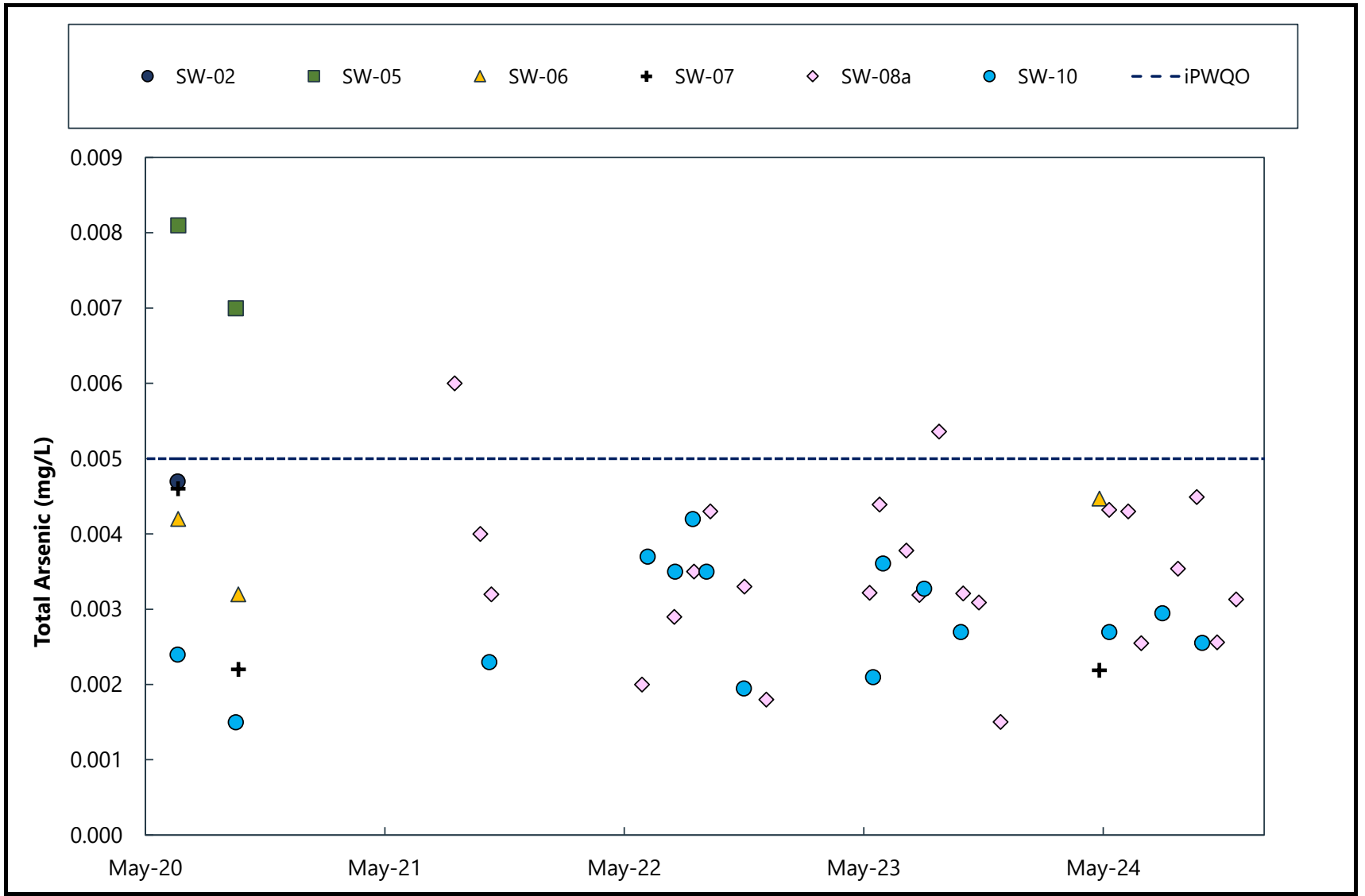
1. iPWQO: interim Provincial Water Quality Objective

Dissolved Aluminum - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-30



Notes:

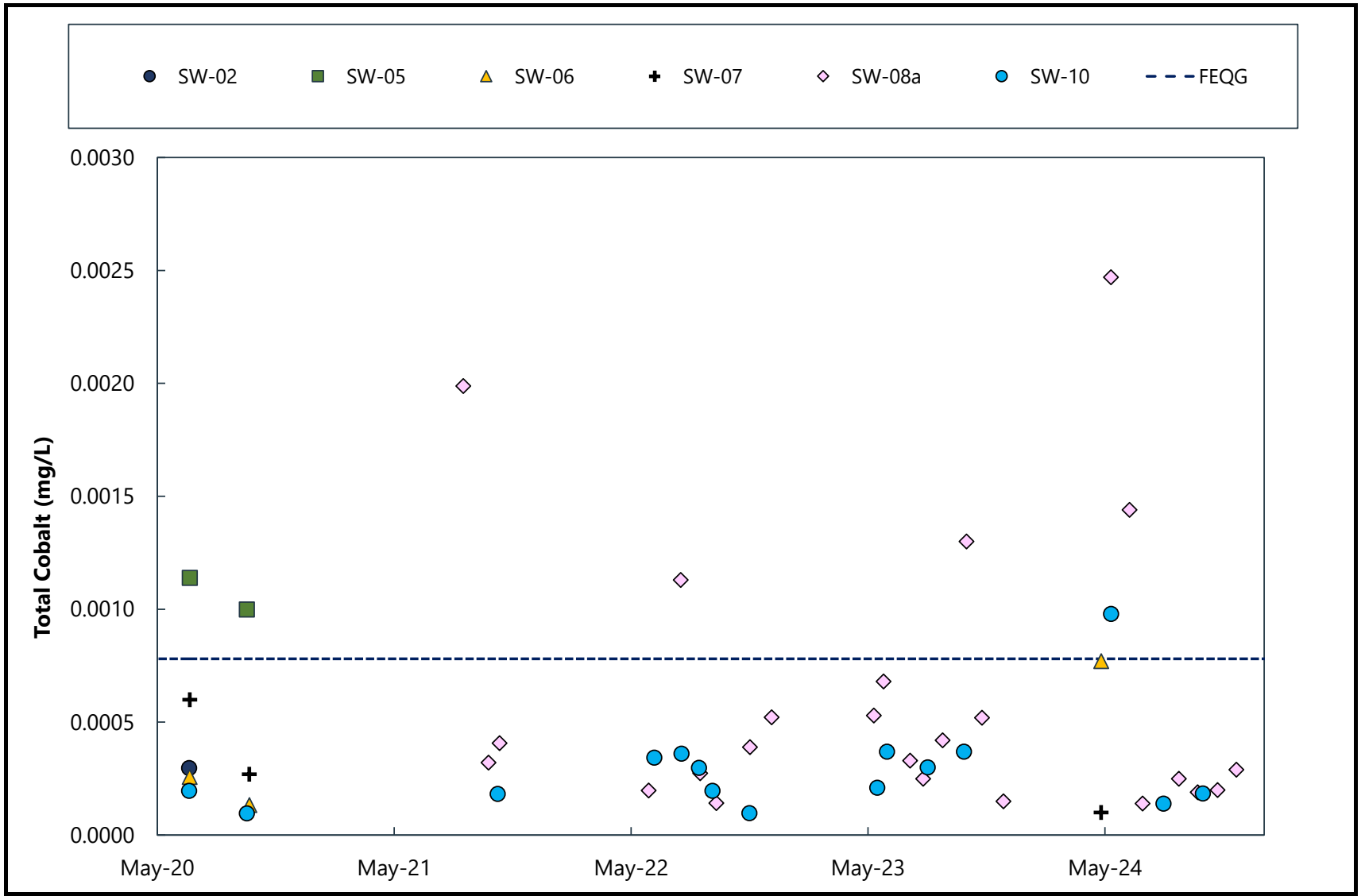
1. iPWQO: interim Provincial Water Quality Objective

Total Arsenic - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-31



Notes:

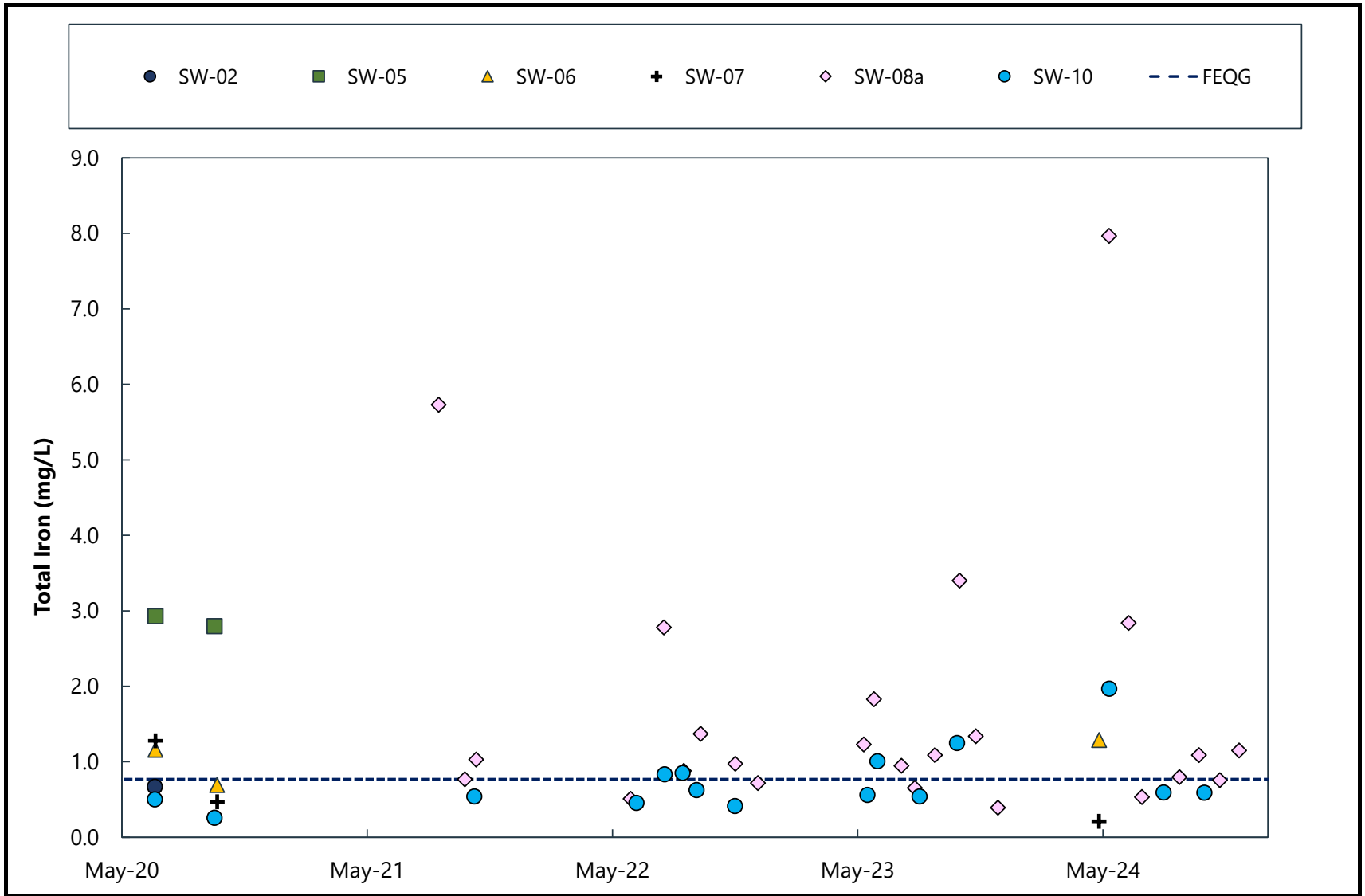
1. FEQG: Federal Environmental Quality Guidelines

Total Cobalt - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-32



Notes:

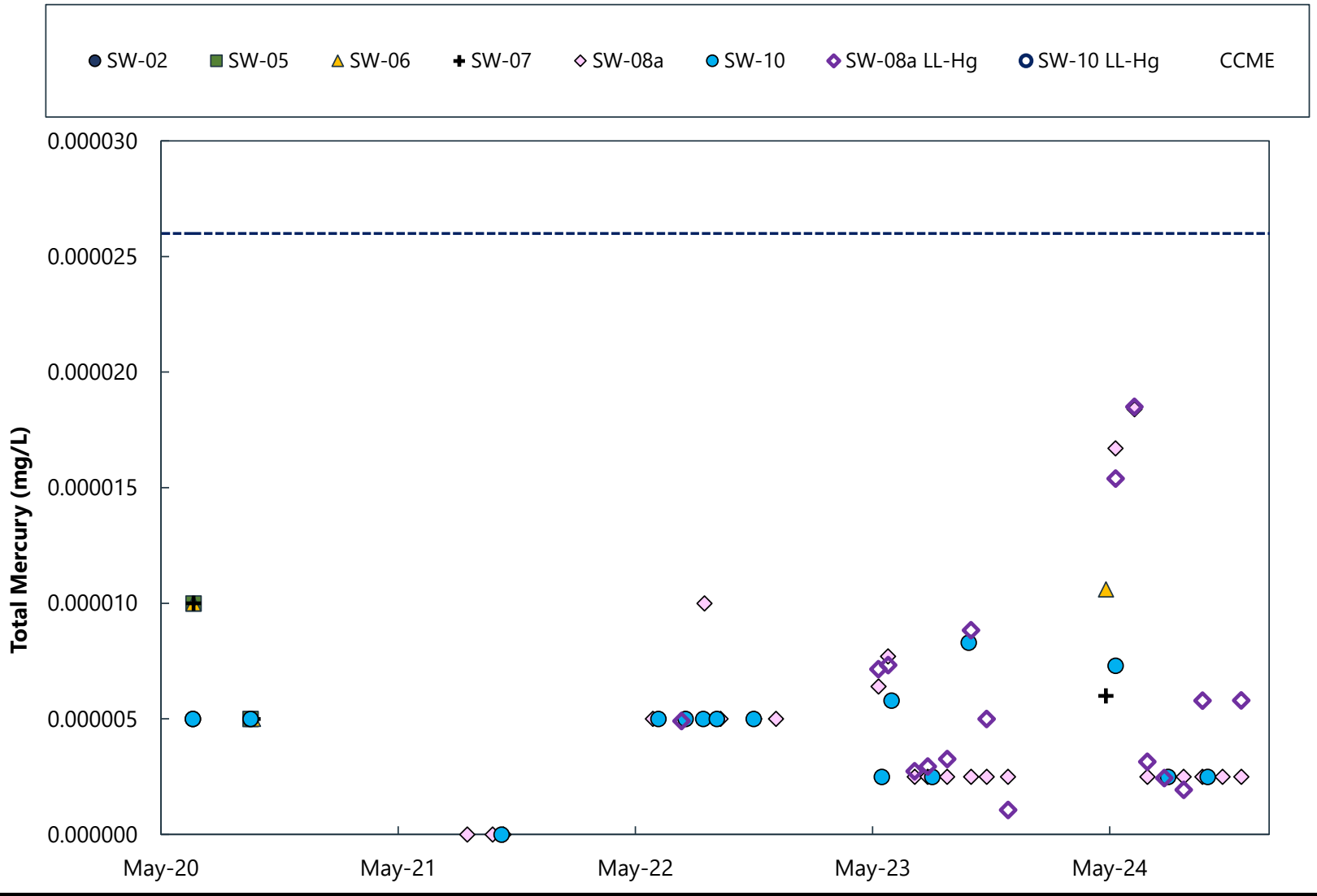
1. FEQG: Federal Environmental Quality Guidelines
2. FEQG calculated to be 0.77 mg/L

Total Iron - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-33



Notes:

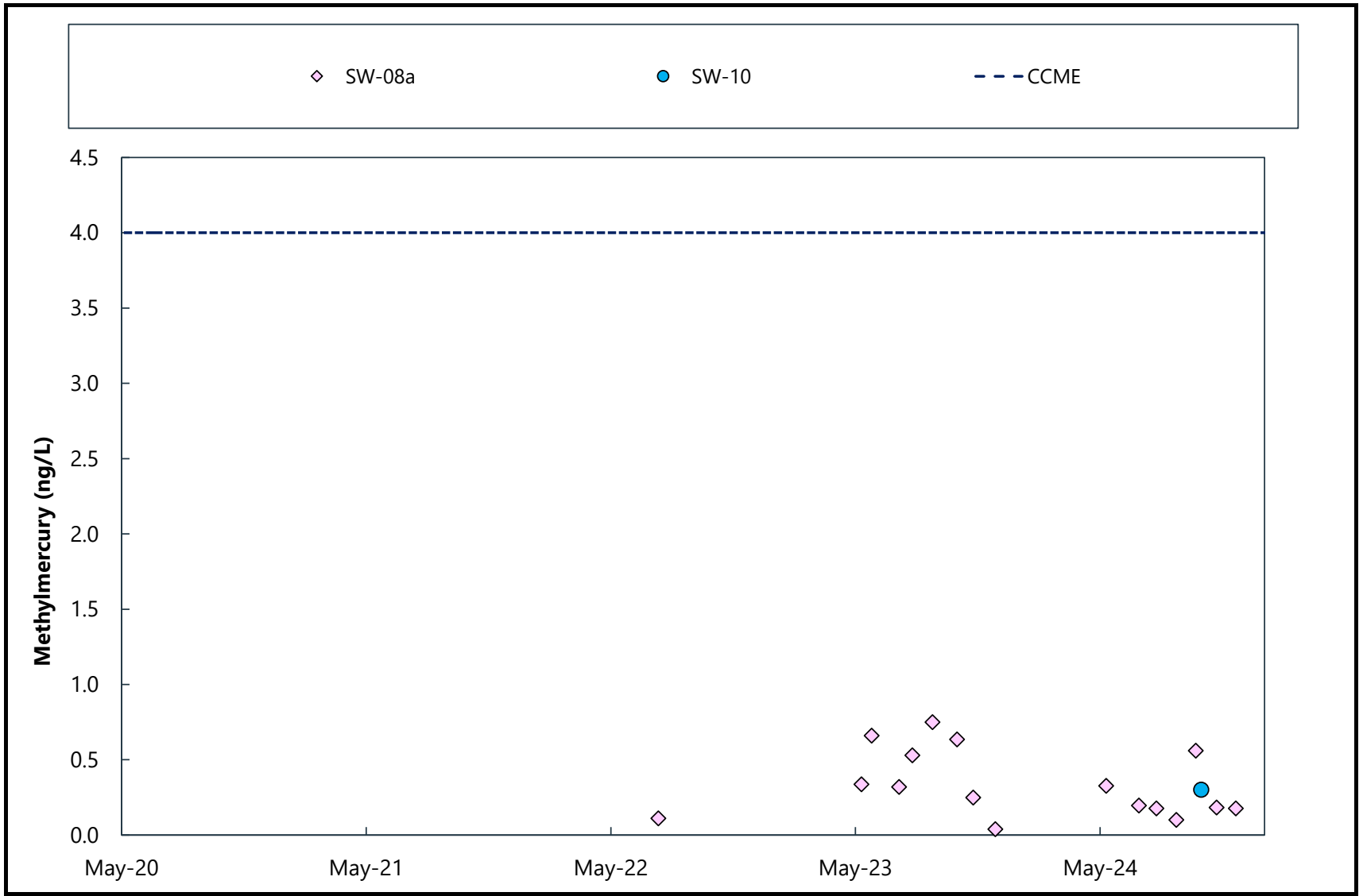
1. CCME: Canadian Council of Ministers of the Environment

Total Mercury - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-34



Notes:

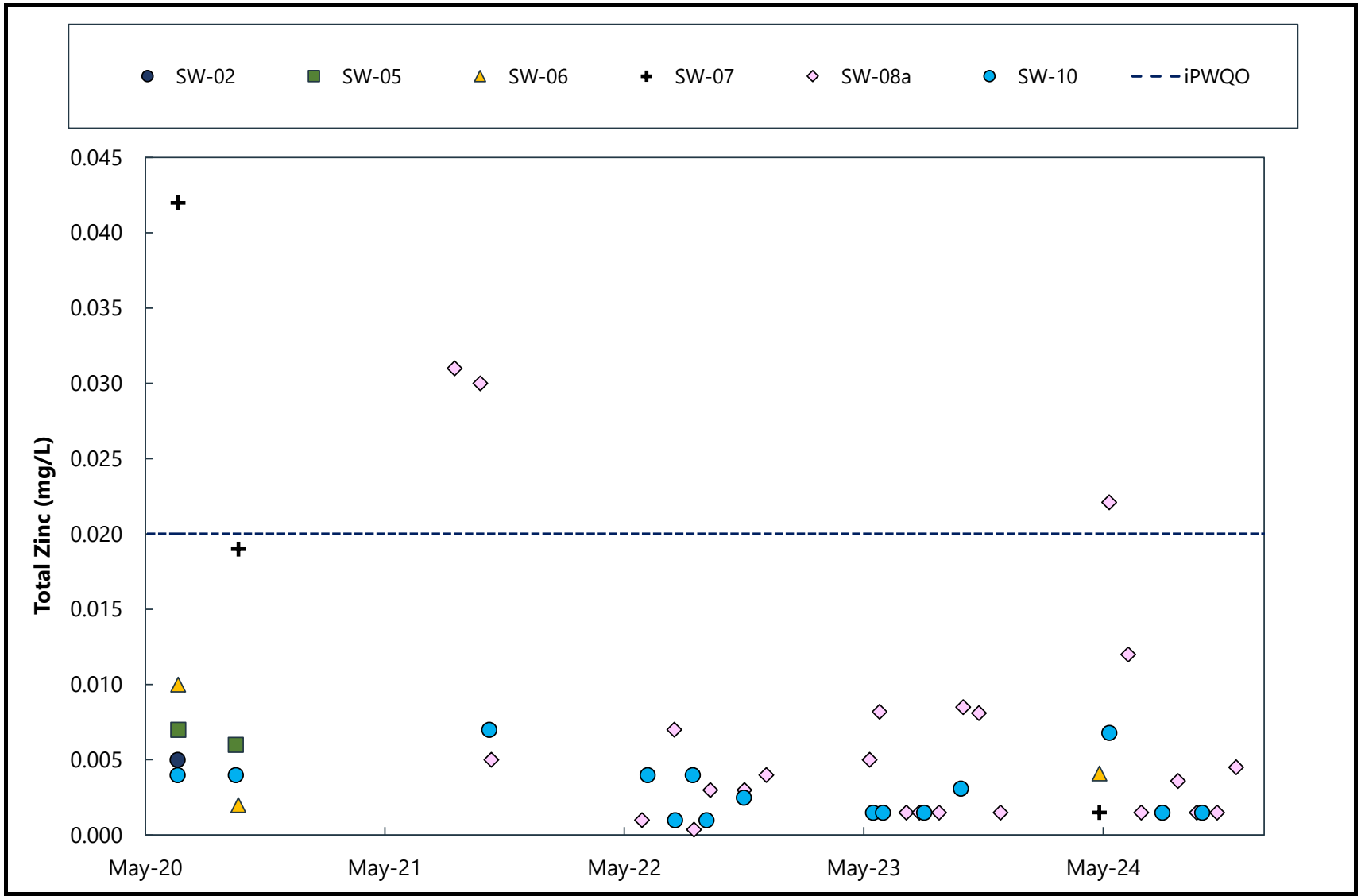
1. CCME: Canadian Council of Ministers of the Environment

Methylmercury - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-35



Notes:

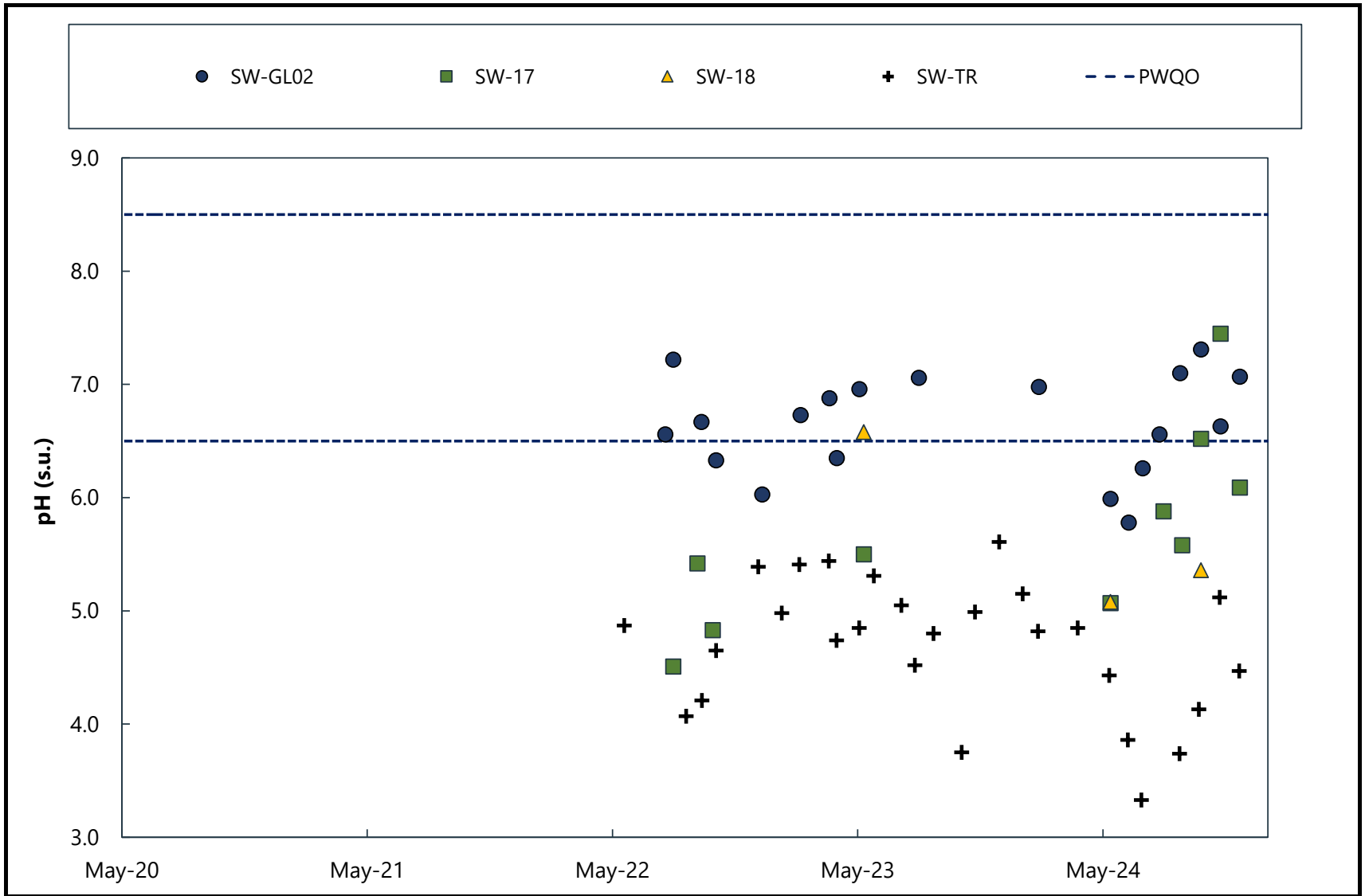
1. iPWQO: interim Provincial Water Quality Objective

Total Zinc - Dixie Creek Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-36



Notes:

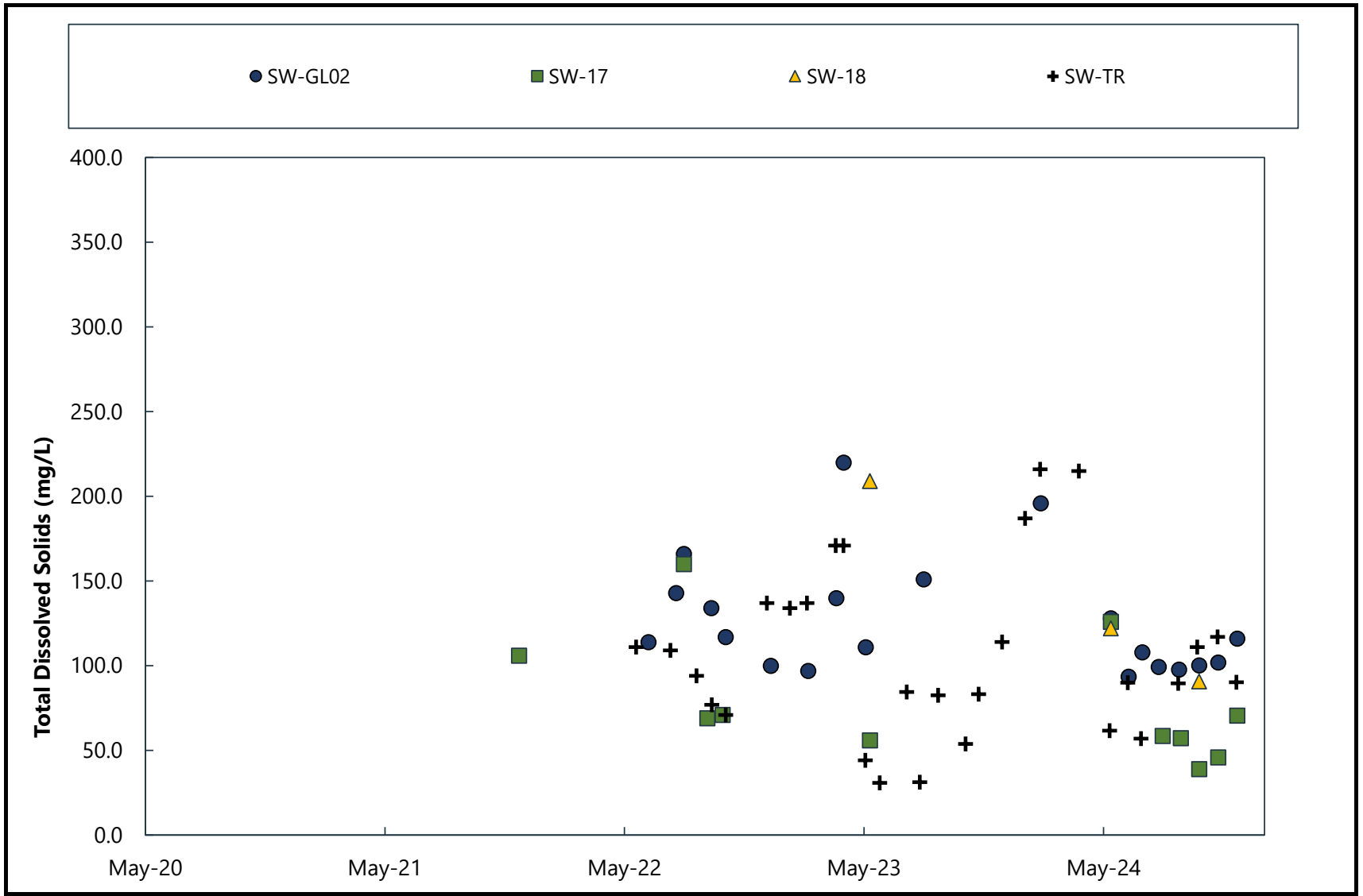
1. PWQO: Provincial Water Quality Objectives
2. pH shown is field pH.

Field pH - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-37



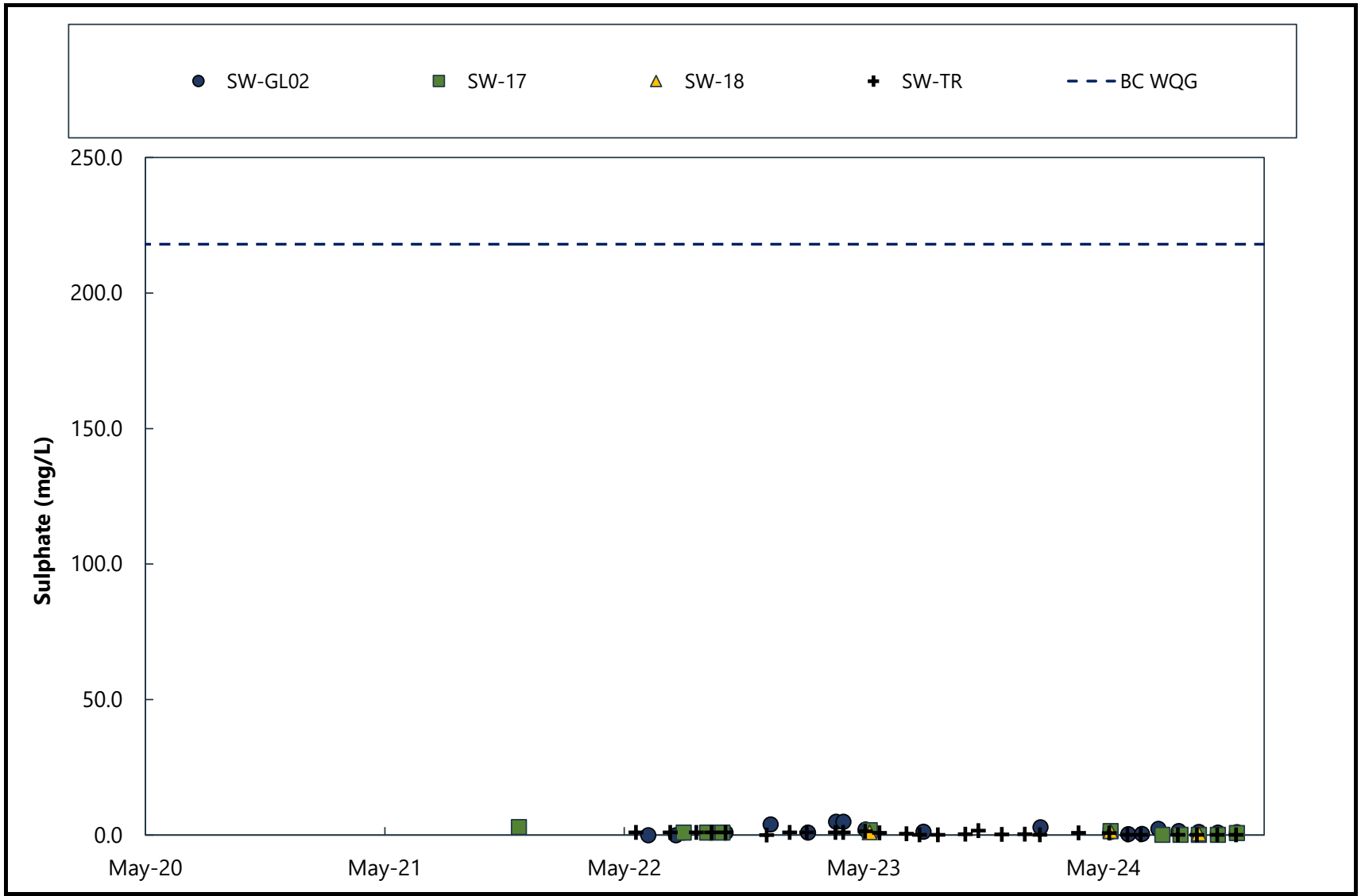
Notes:

Total Dissolved Solids - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-38



Notes:

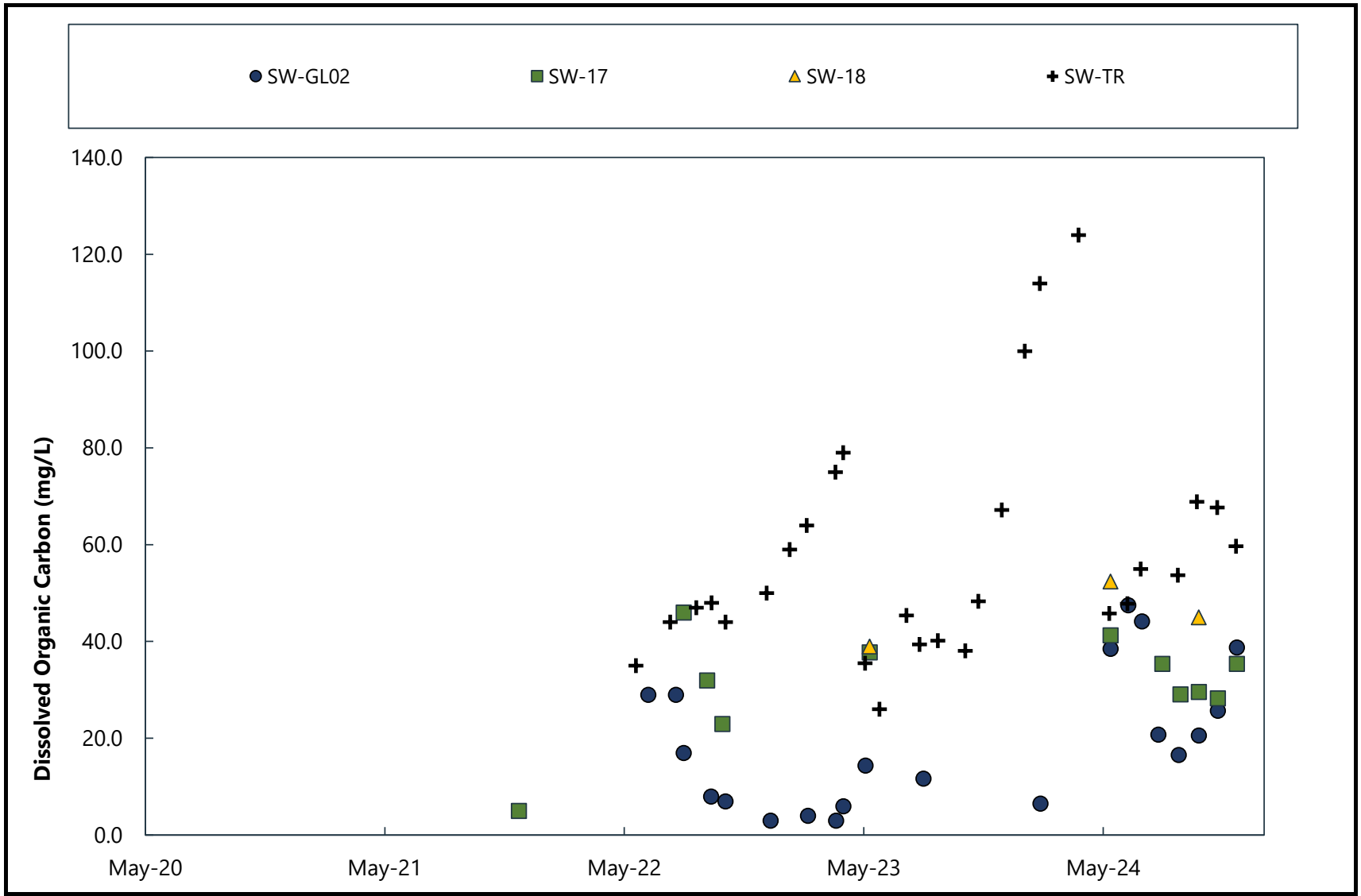
1. BC WQG: British Columbia long-term exposure guidelines (freshwater) are accessed here in the absence of Ontario or Federal guidelines

Sulphate - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-39



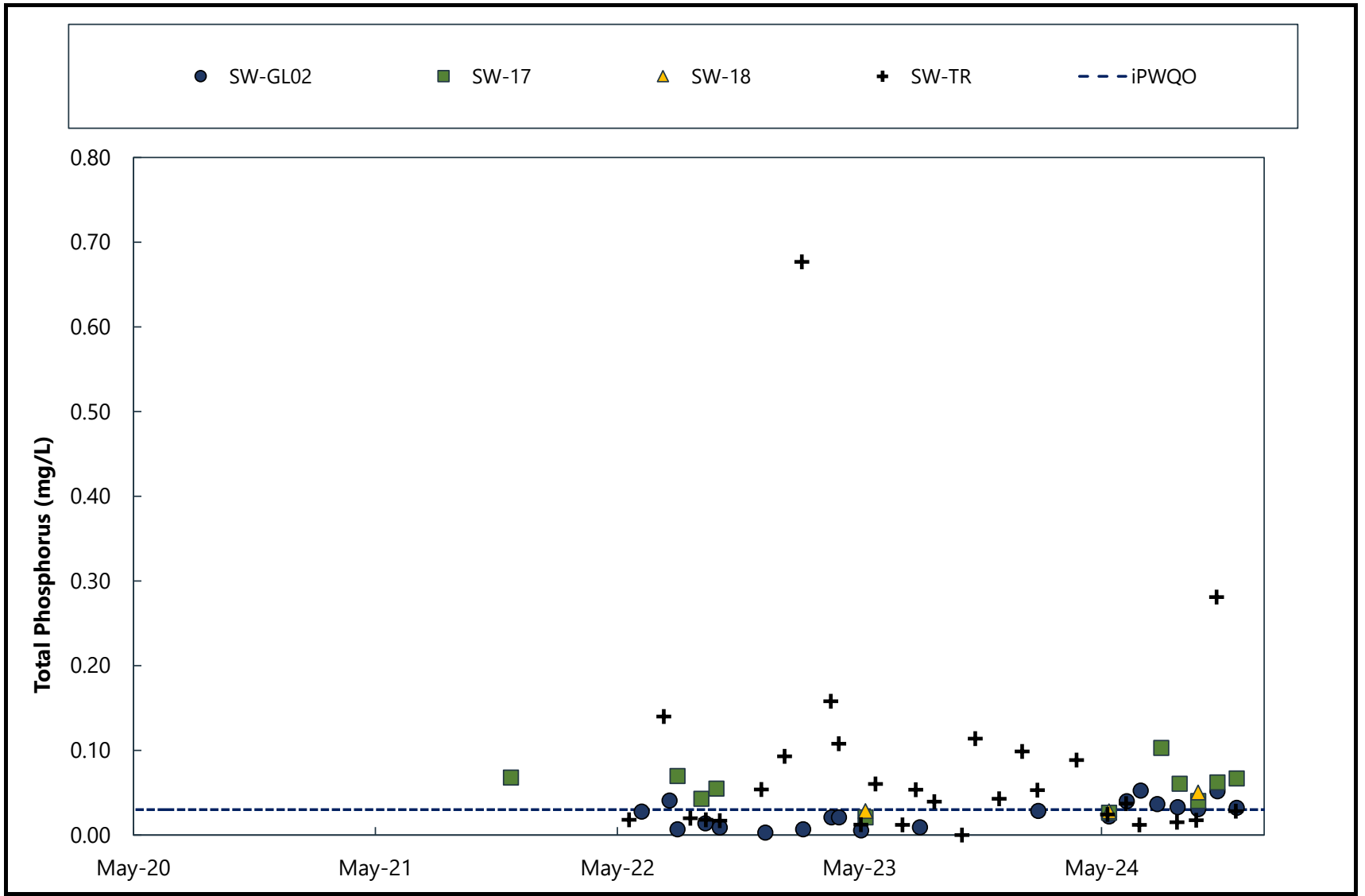
Notes:

Dissolved Organic Carbon - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-40



Notes:

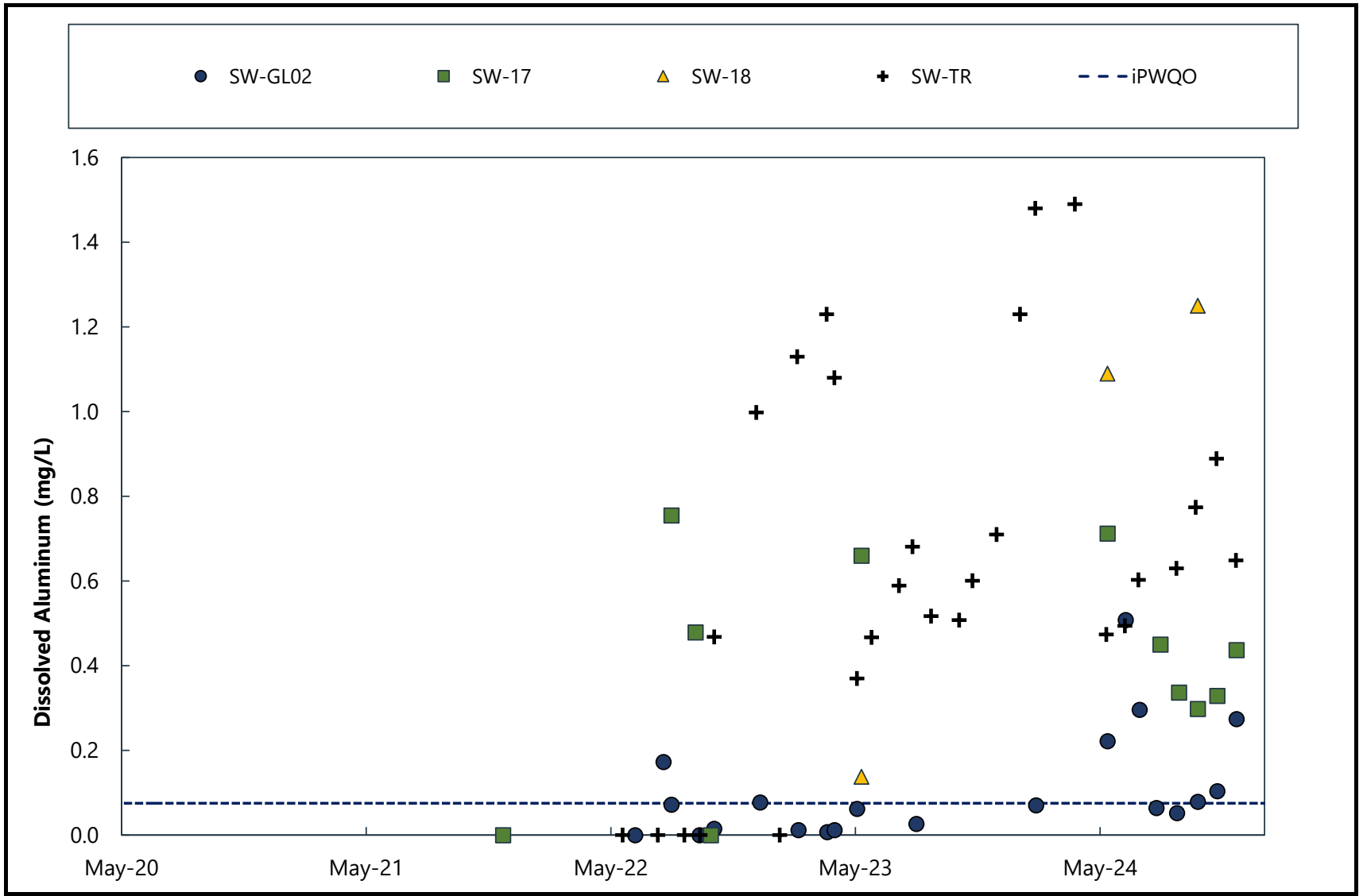
1. iPWQO: interim Provincial Water Quality Objective
2. Total P shown is from colourmetric analysis

Phosphorus - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-41



Notes:

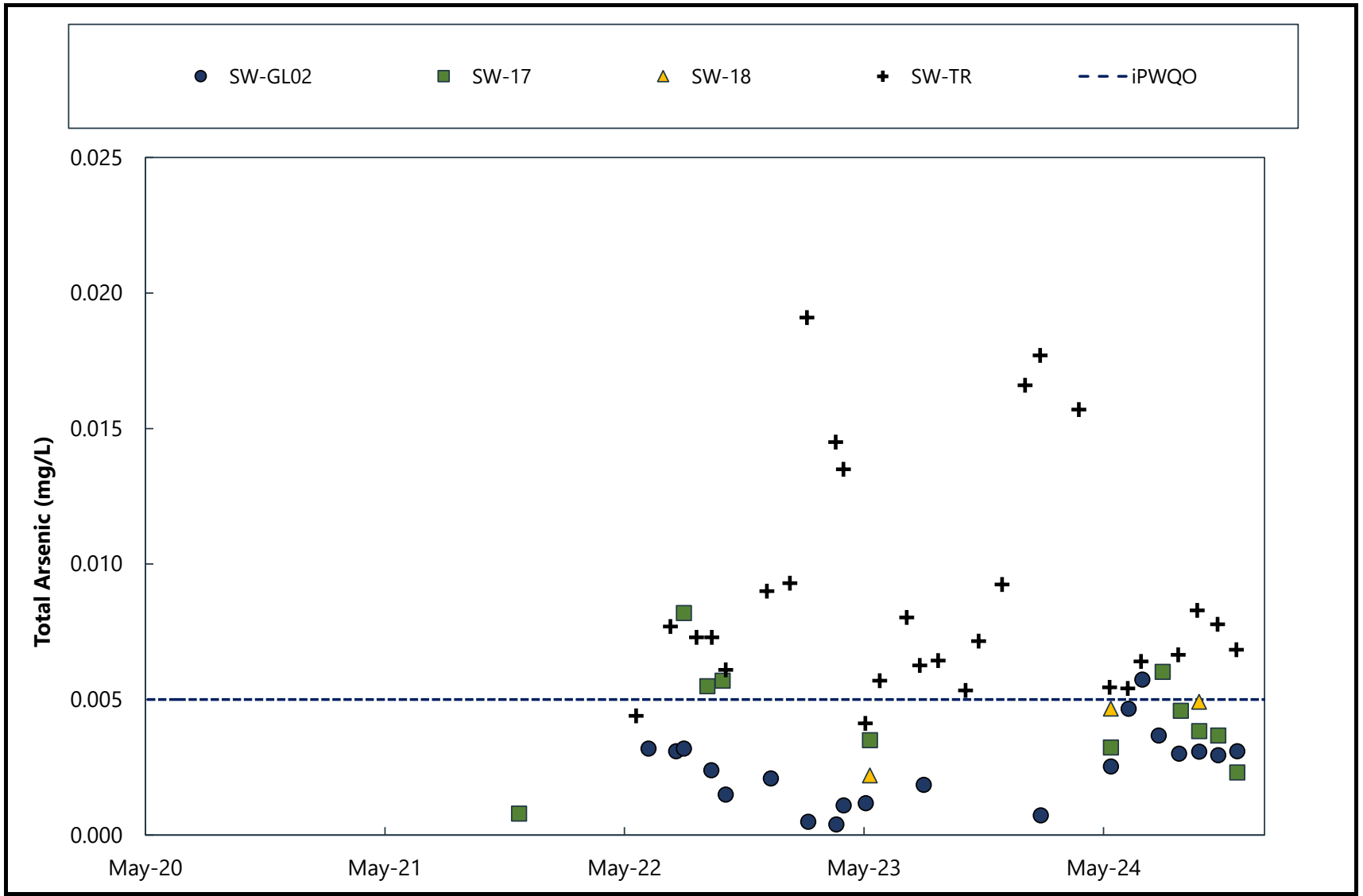
1. iPWQO: interim Provincial Water Quality Objective

Dissolved Aluminum - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-42



Notes:

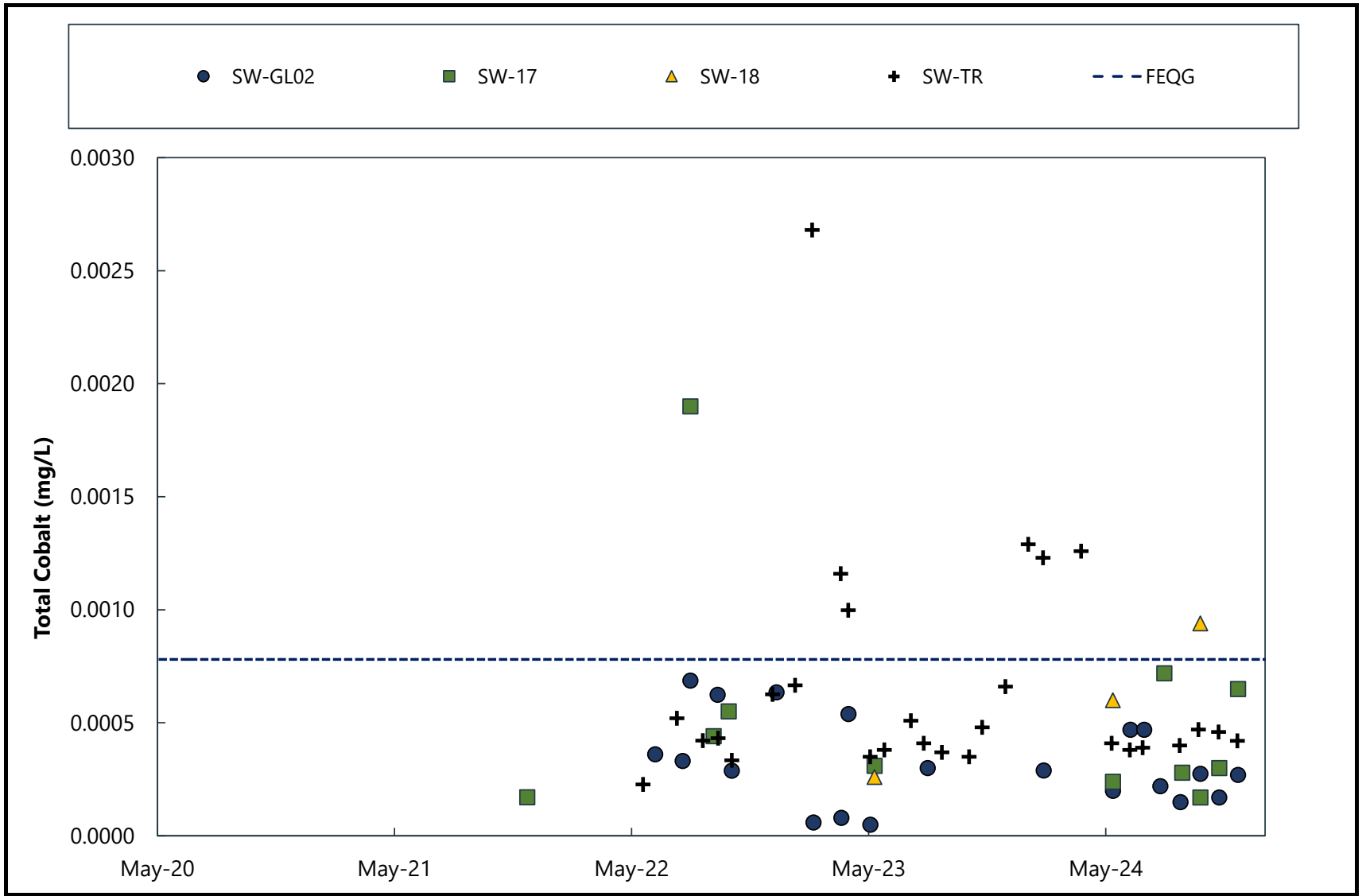
1. iPWQO: interim Provincial Water Quality Objective

Total Arsenic - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-43



Notes:

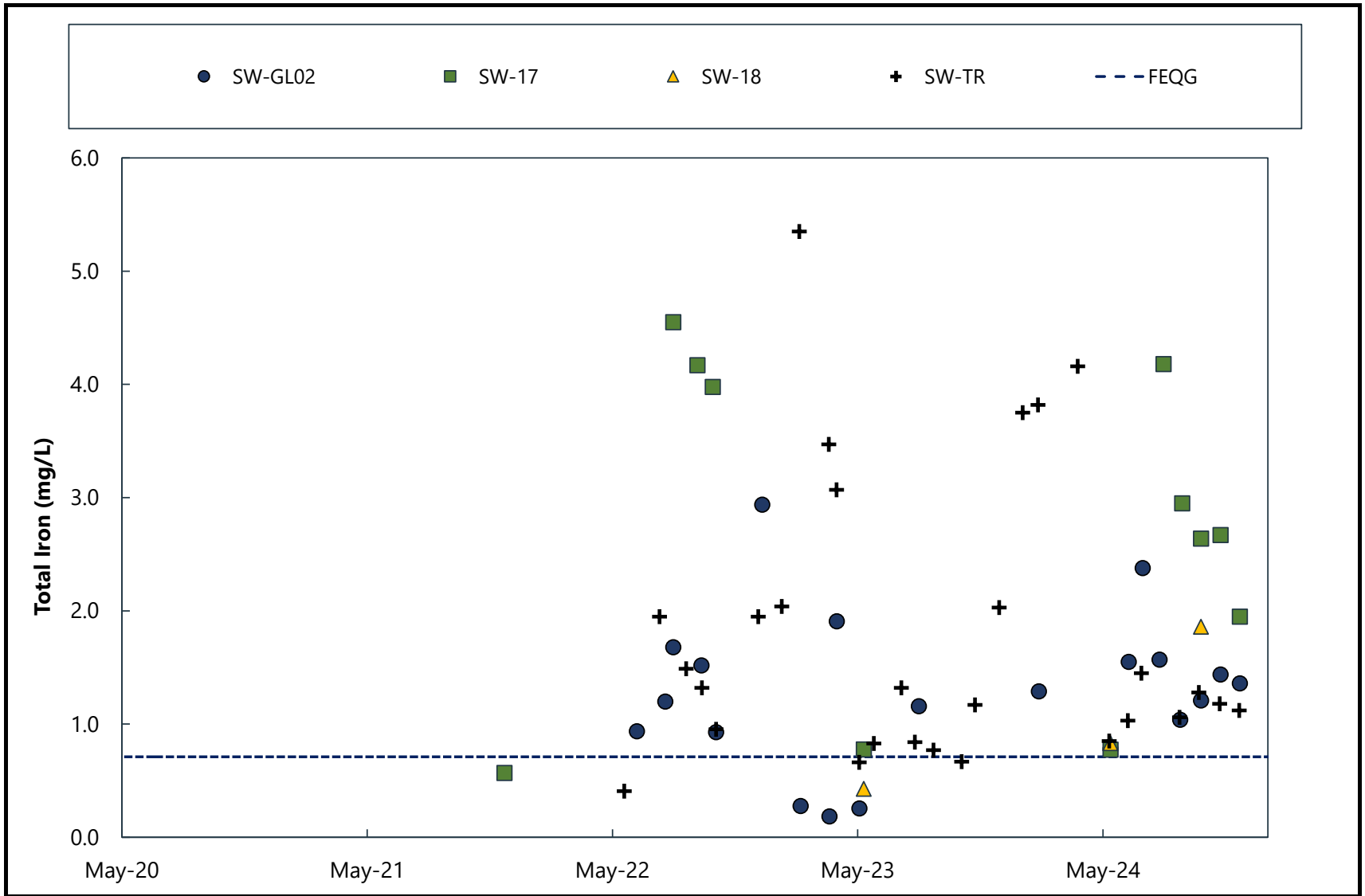
1. FEQG: Federal Environmental Quality Guidelines

Total Cobalt - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-44



Notes:

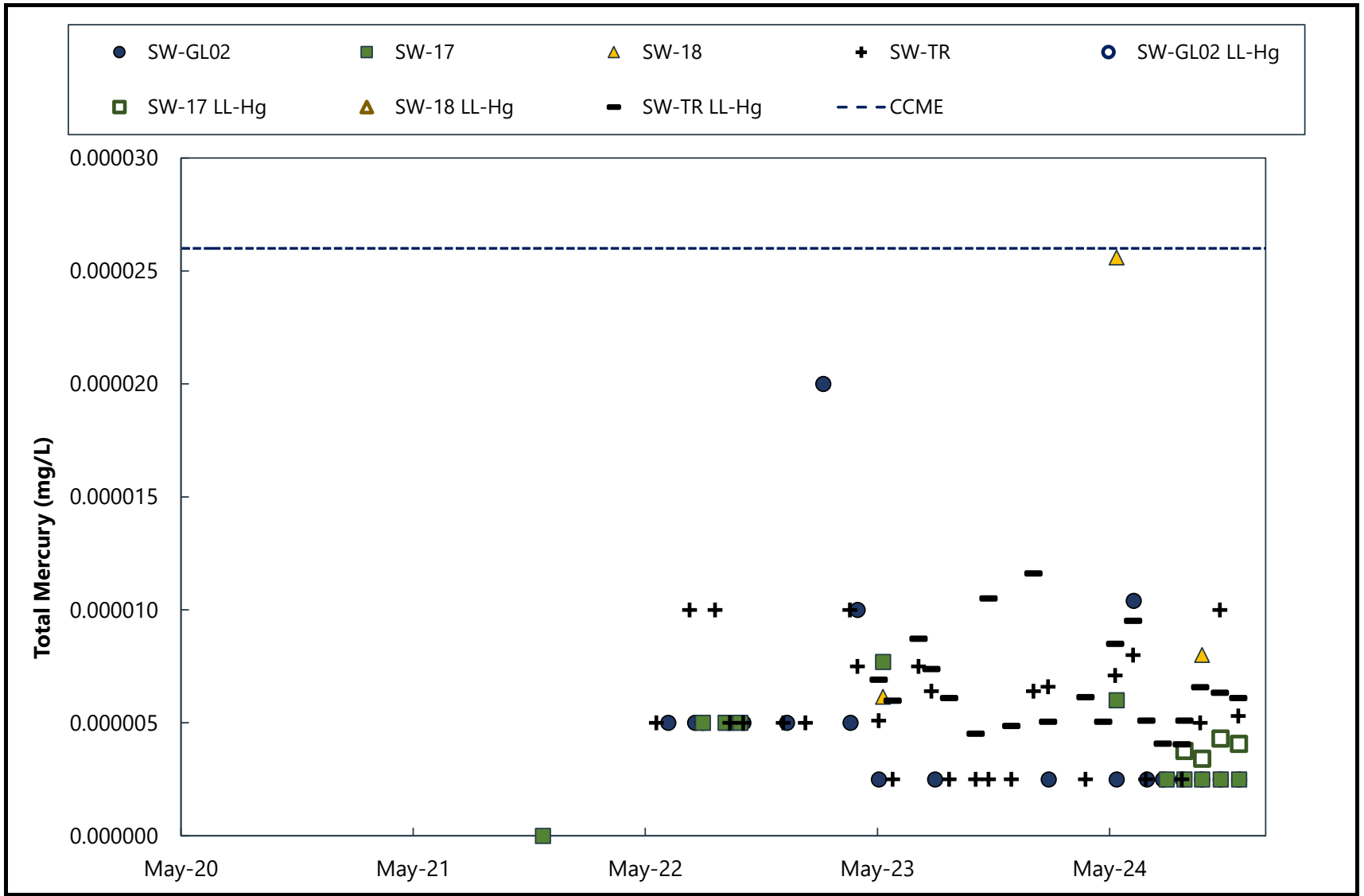
1. FEQG: Federal Environmental Quality Guidelines
2. FEQG is calculated to be 0.71 mg/L

Total Iron - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-45



Notes:

1. CCME: Canadian Council of Ministers of the Environment

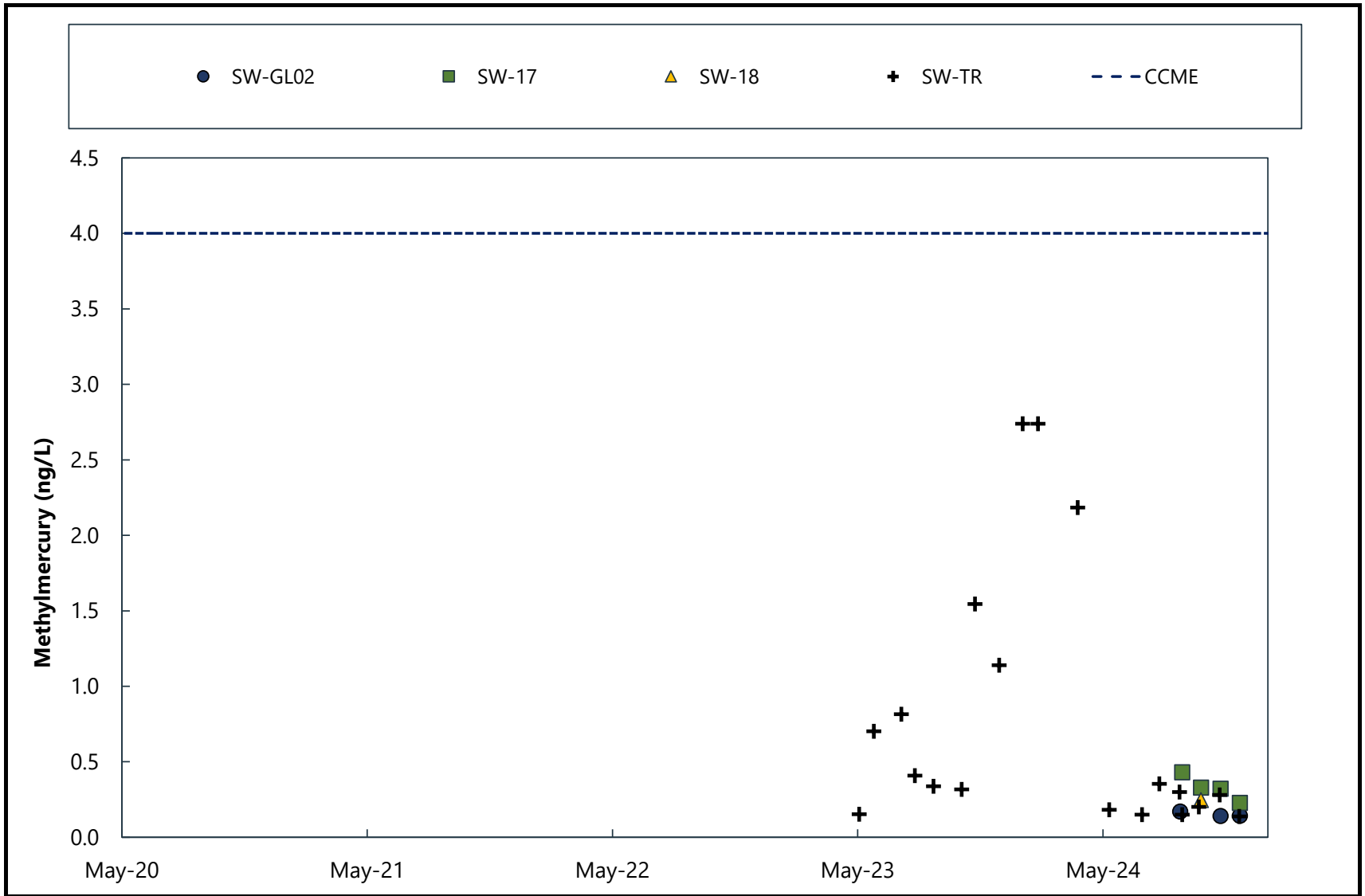
2. An SW-TR outlier (0.00015 mg/L Hg-T) was observed on February 13, 2023. It has been removed from graphs for visual clarity but remains in the summary statistics

Total Mercury - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-46



Notes:

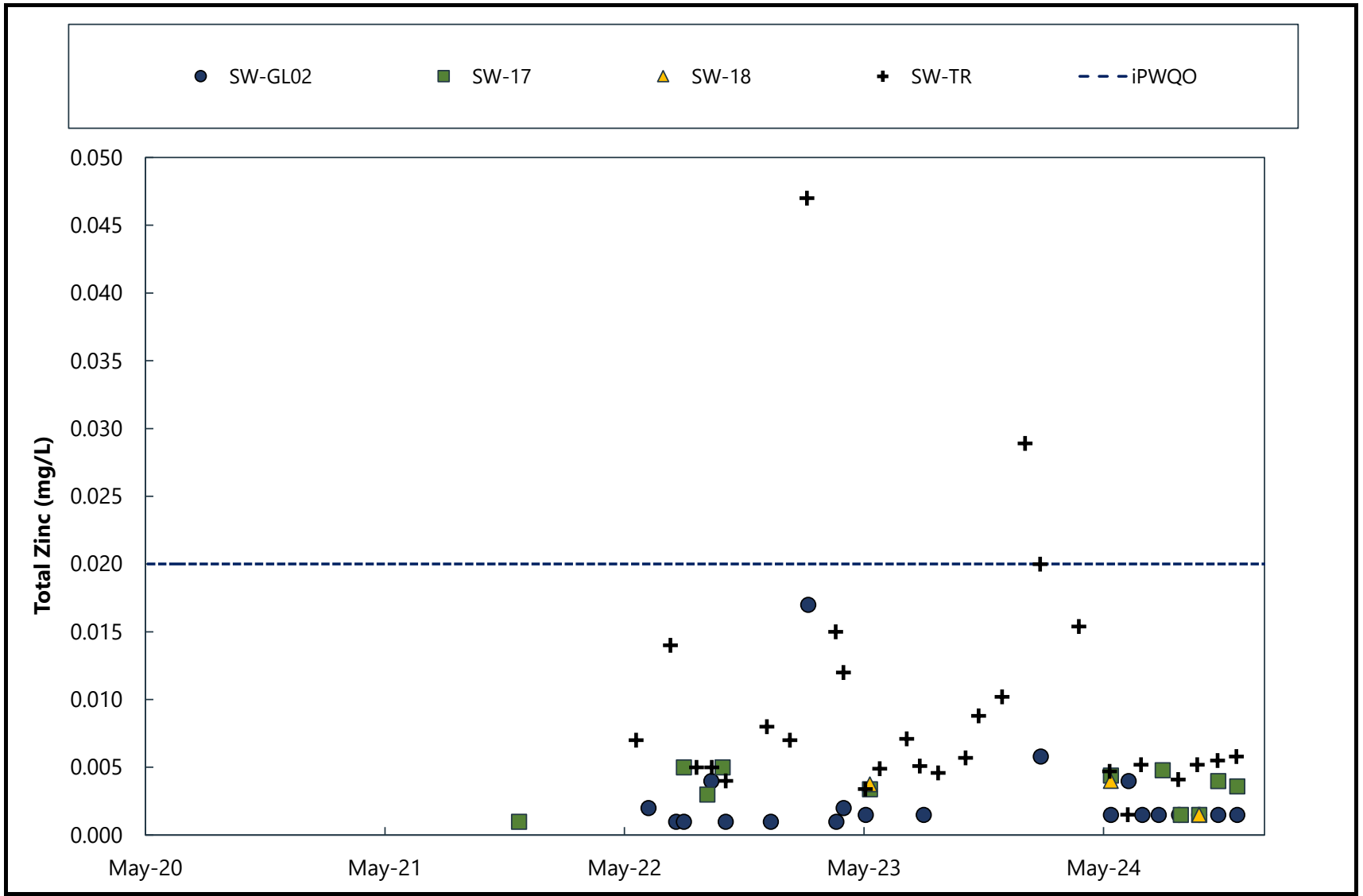
1. CCME: Canadian Council of Ministers of the Environment

Methylmercury - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-47



Notes:

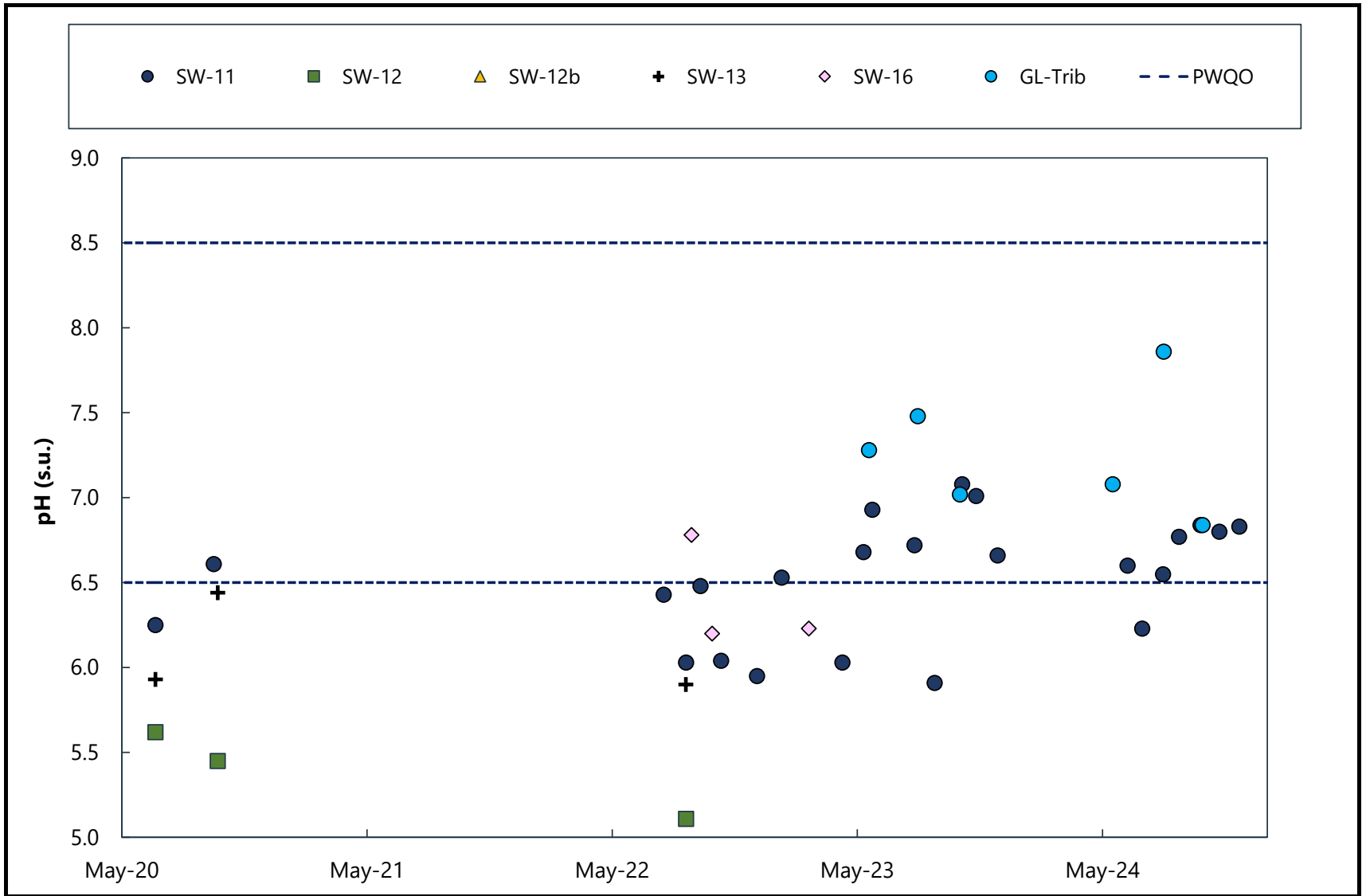
1. iPWQO: interim Provincial Water Quality Objective

Total Zinc - Unnamed Watercourses

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-48



Notes:

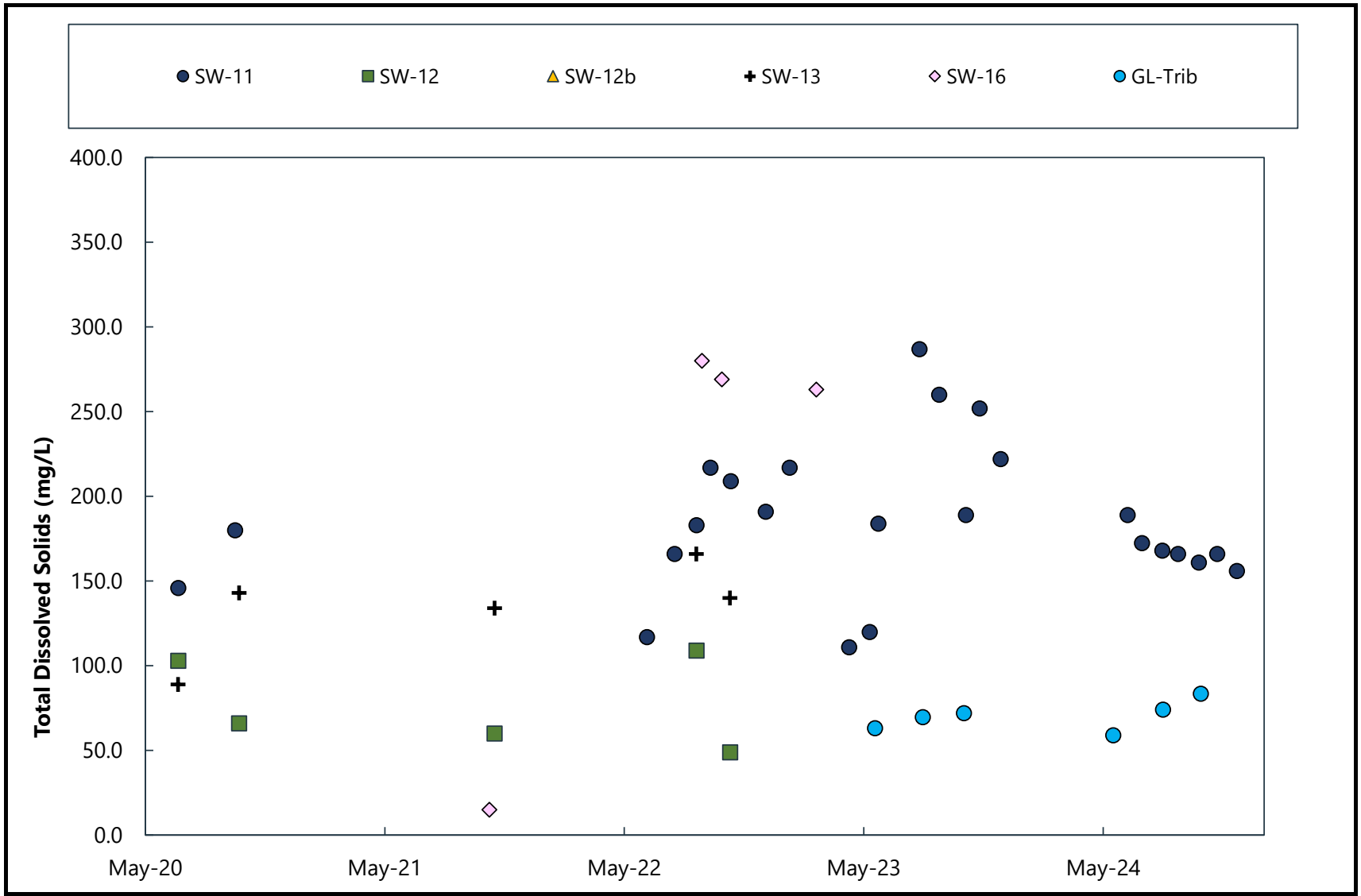
1. PWQO: Provincial Water Quality Objectives
2. pH shown is field pH.

Field pH - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-49



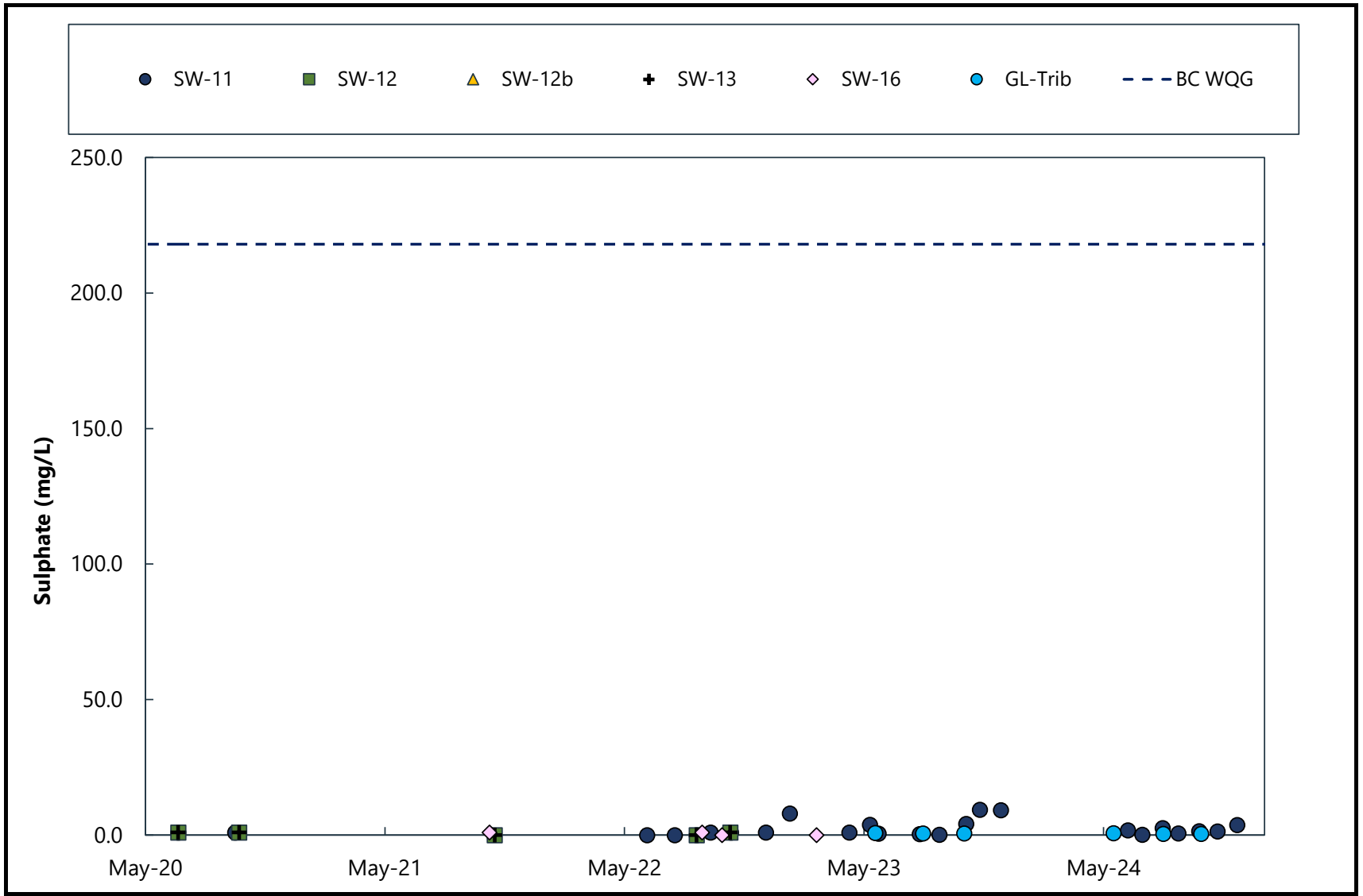
Notes:

Total Dissolved Solids - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-50



Notes:

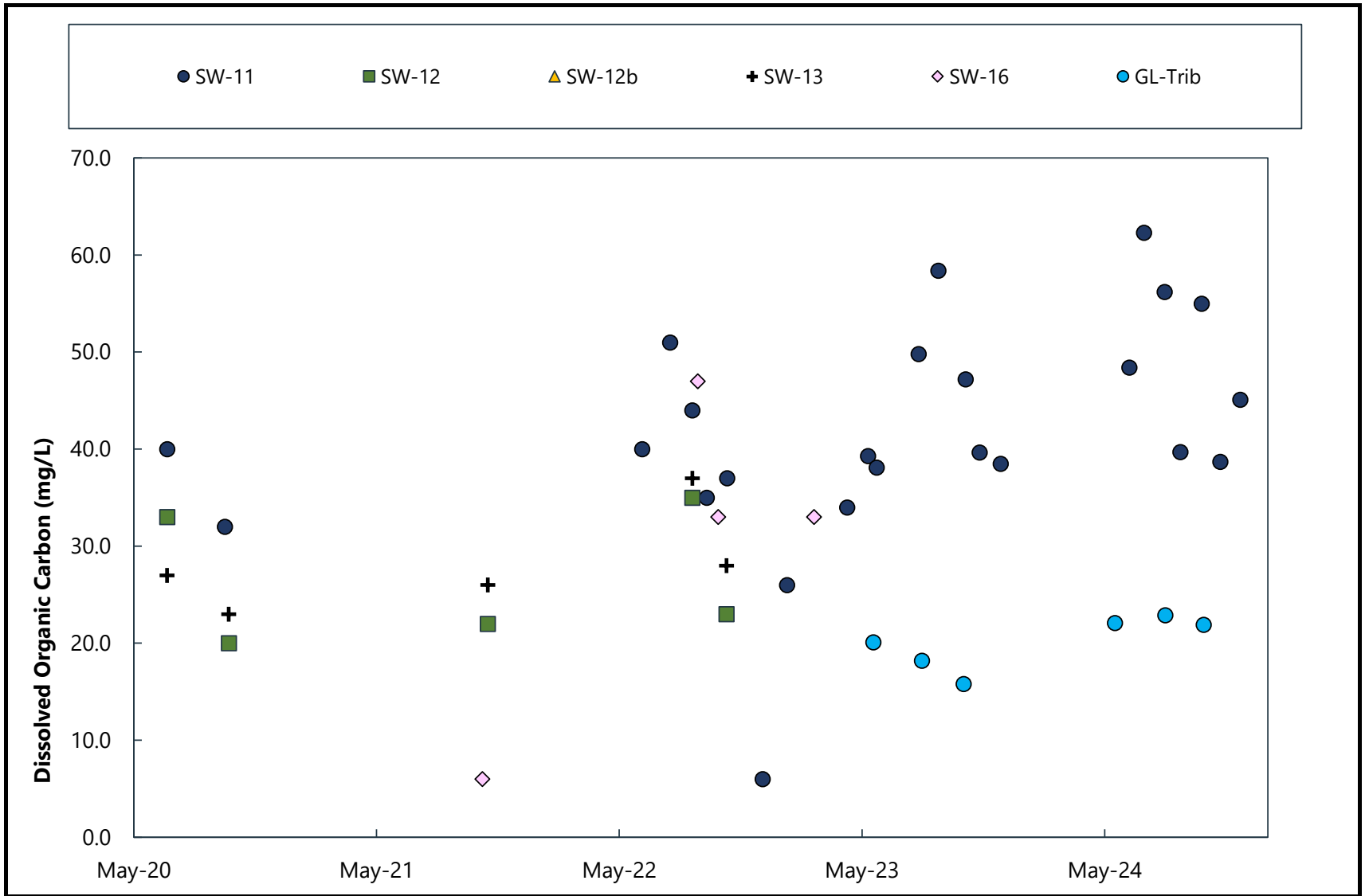
1. BC WQG: British Columbia long-term exposure guidelines (freshwater) are accessed here in the absence of Ontario or Federal guidelines

Sulphate - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-51



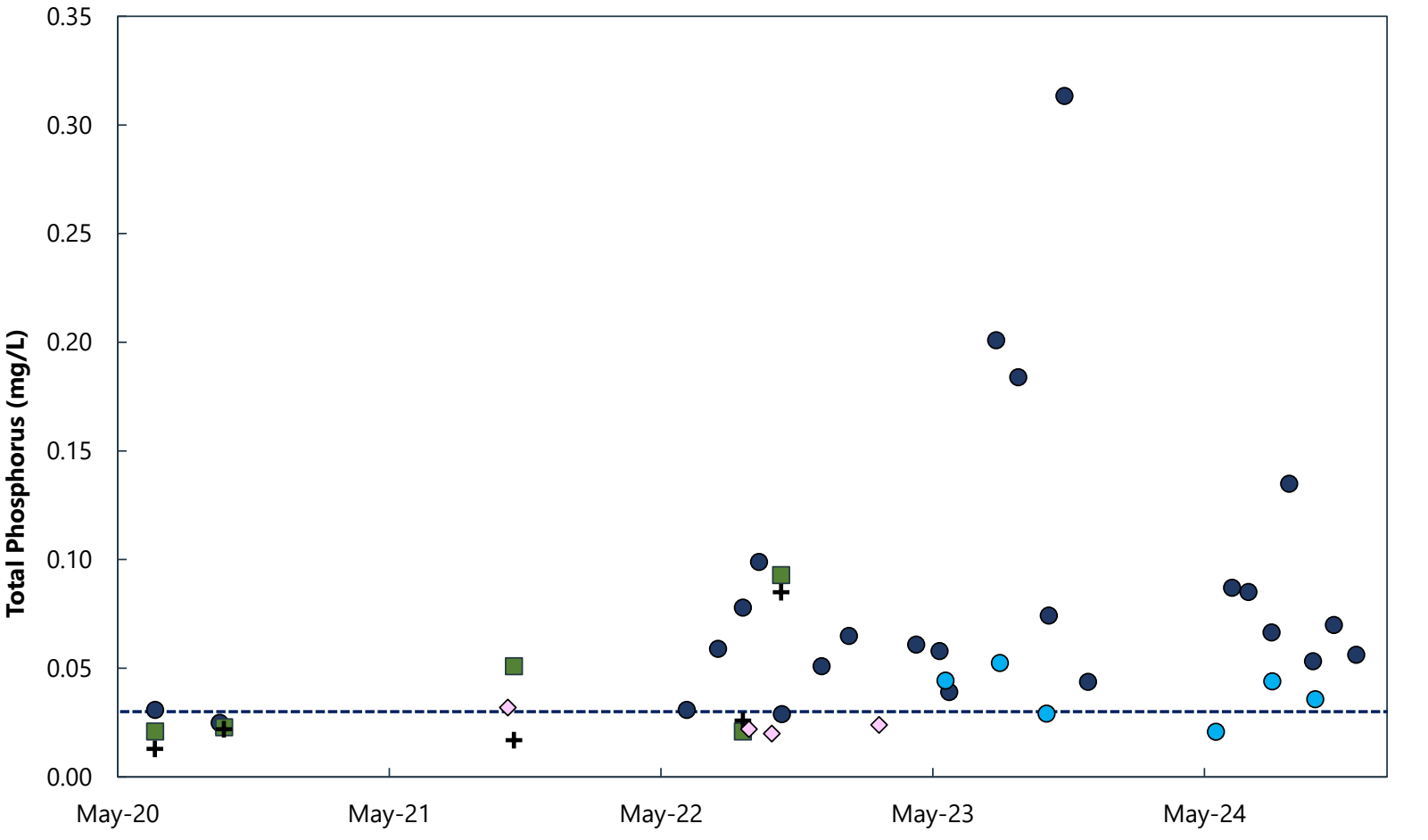
Notes:

Dissolved Organic Carbon - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-52



Notes:

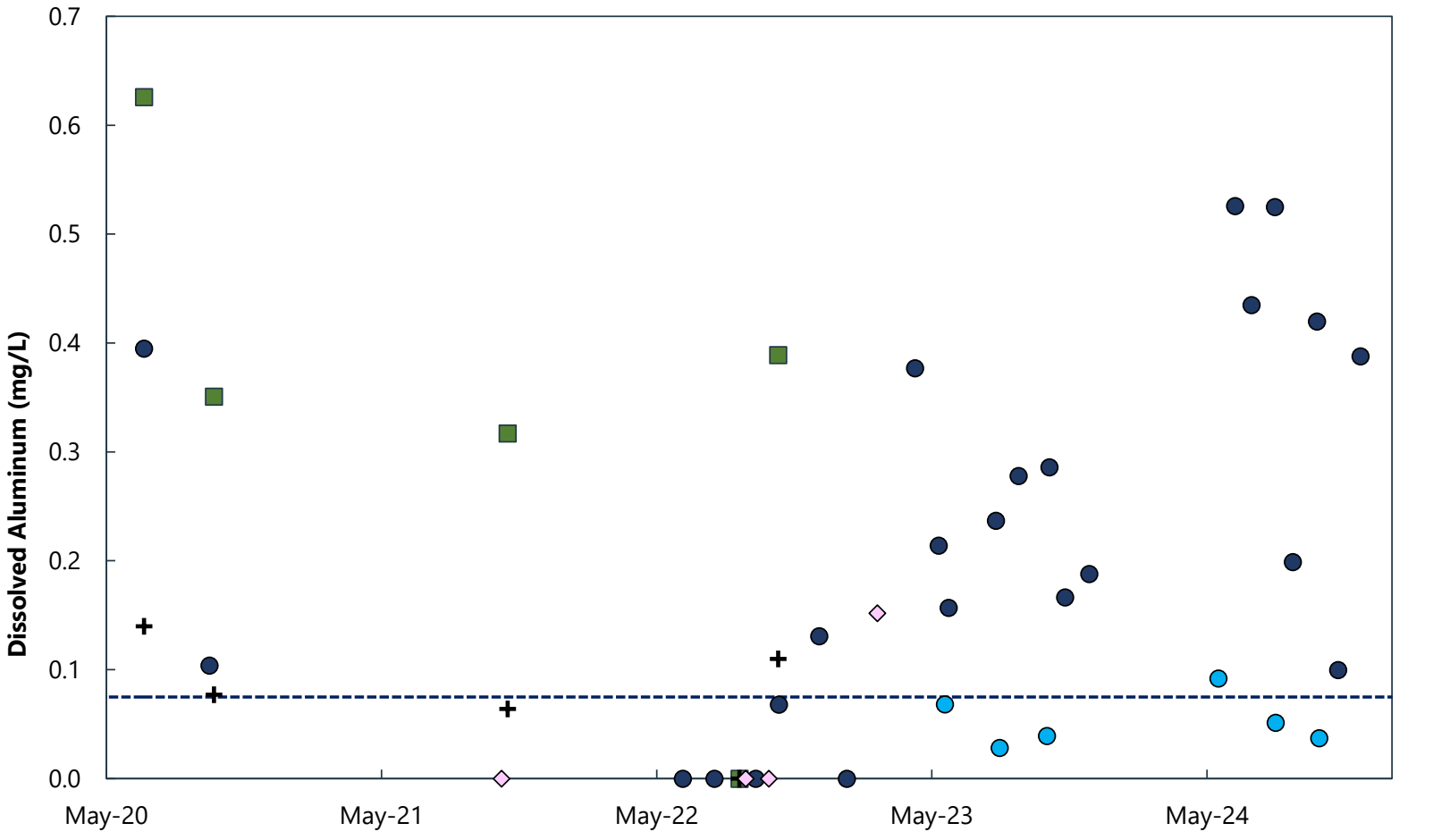
1. iPWQO: interim Provincial Water Quality Objective
2. Total P shown is from colourmetric analysis

Phosphorus - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-53



Notes:

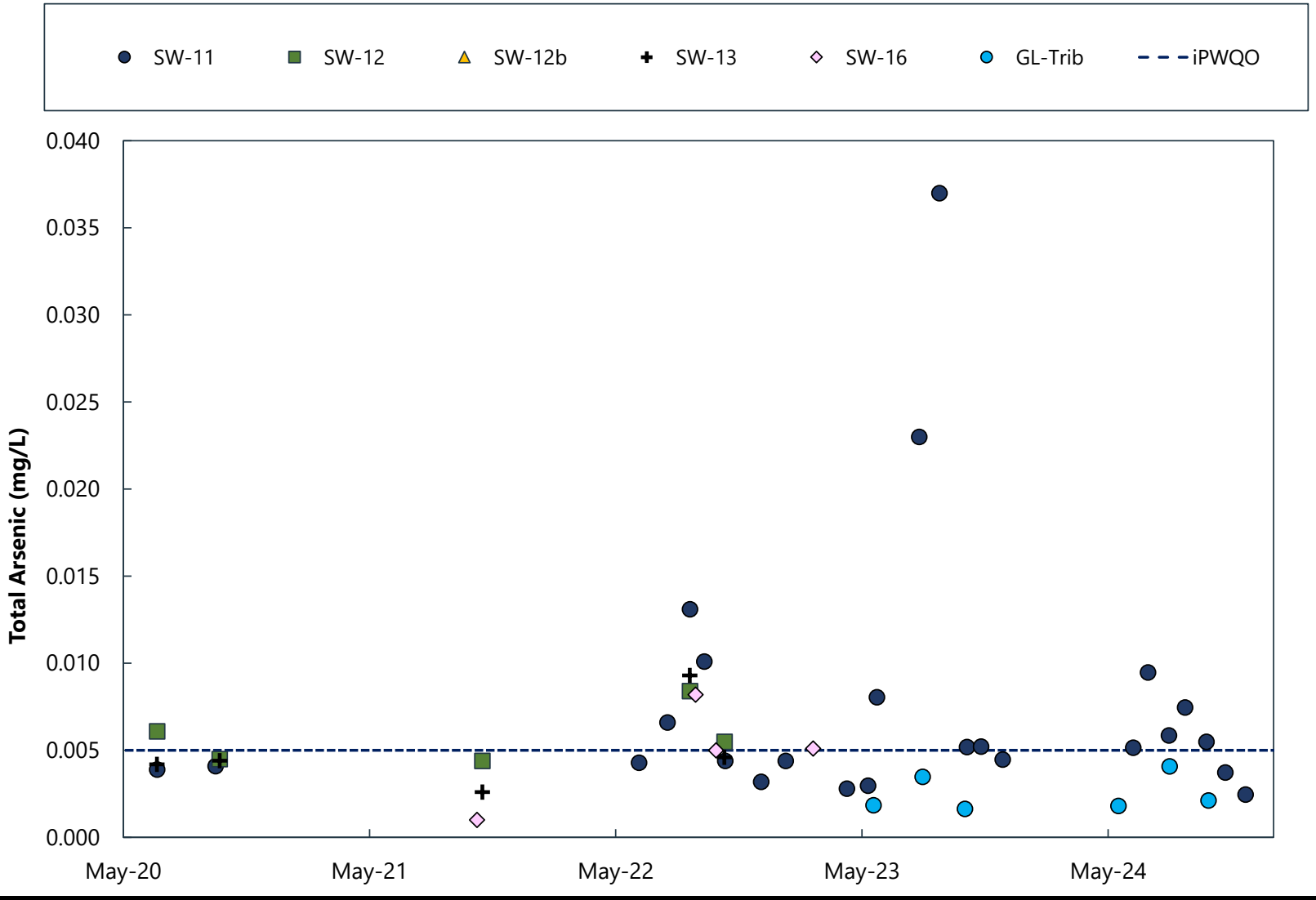
1. iPWQO: interim Provincial Water Quality Objective

Dissolved Aluminum - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-54



Notes:

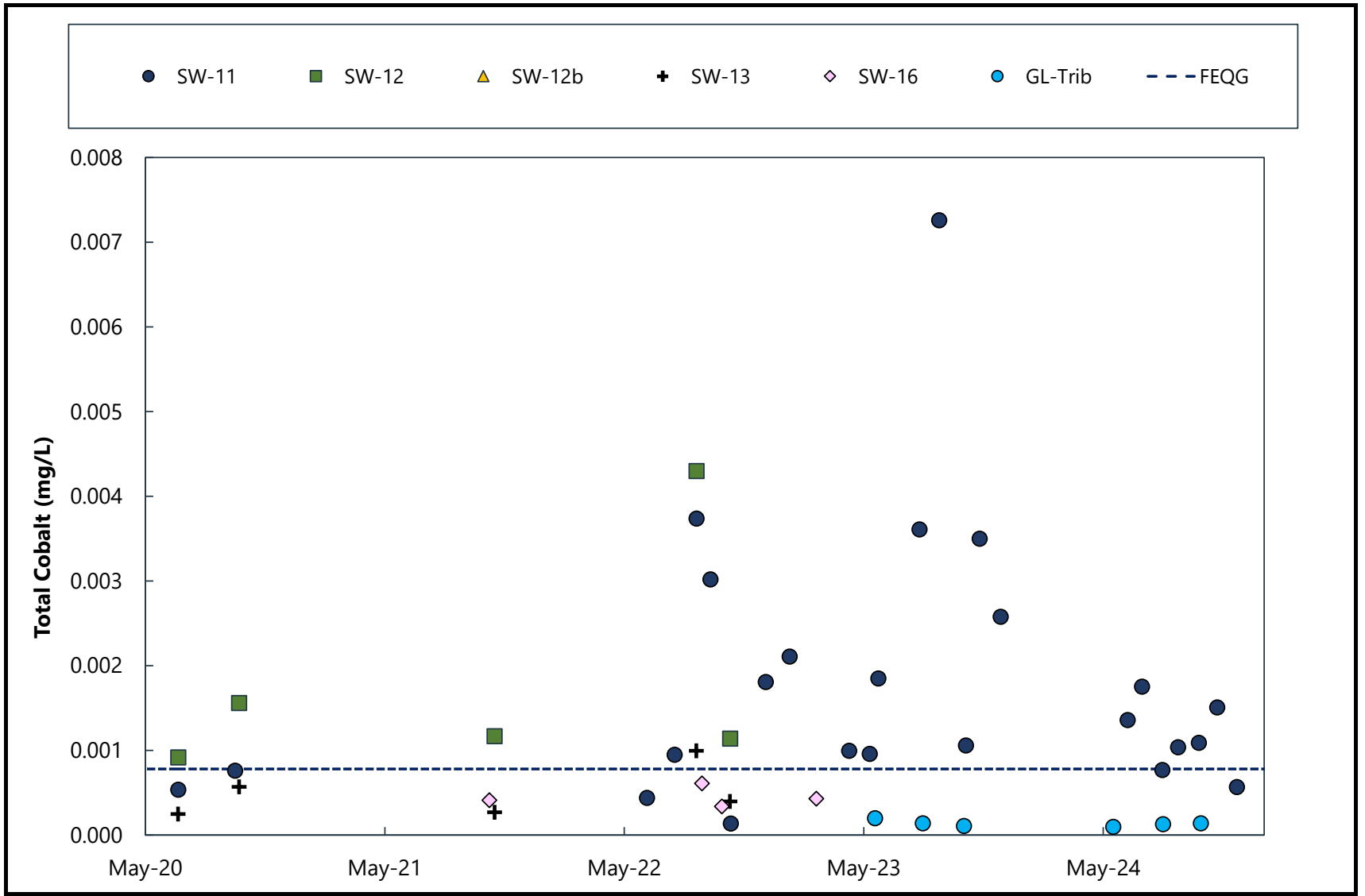
1. iPWQO: interim Provincial Water Quality Objective

Total Arsenic - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-55



Notes:

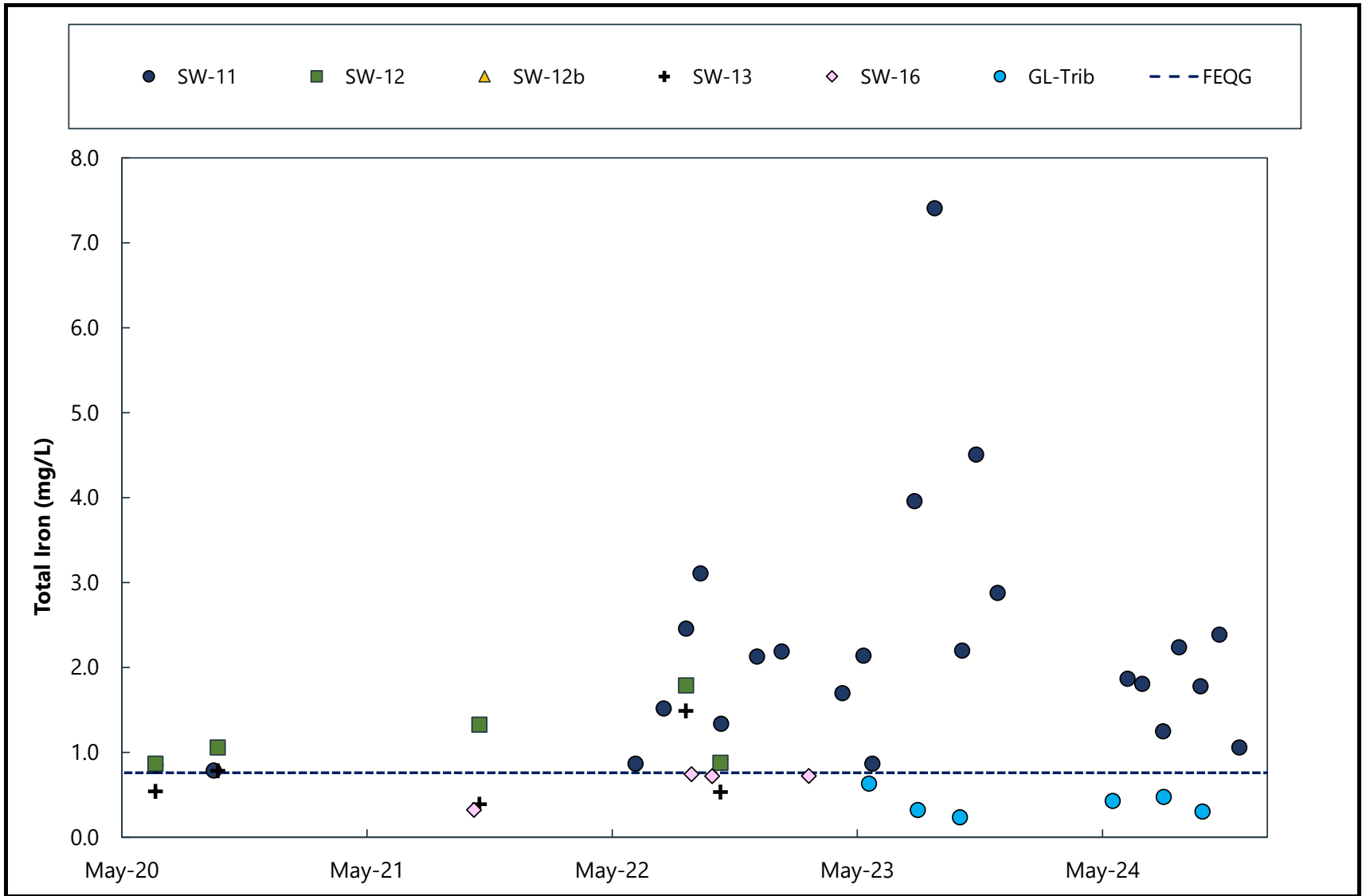
1. FEQG: Federal Environmental Quality Guidelines

Total Cobalt - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-56



Notes:

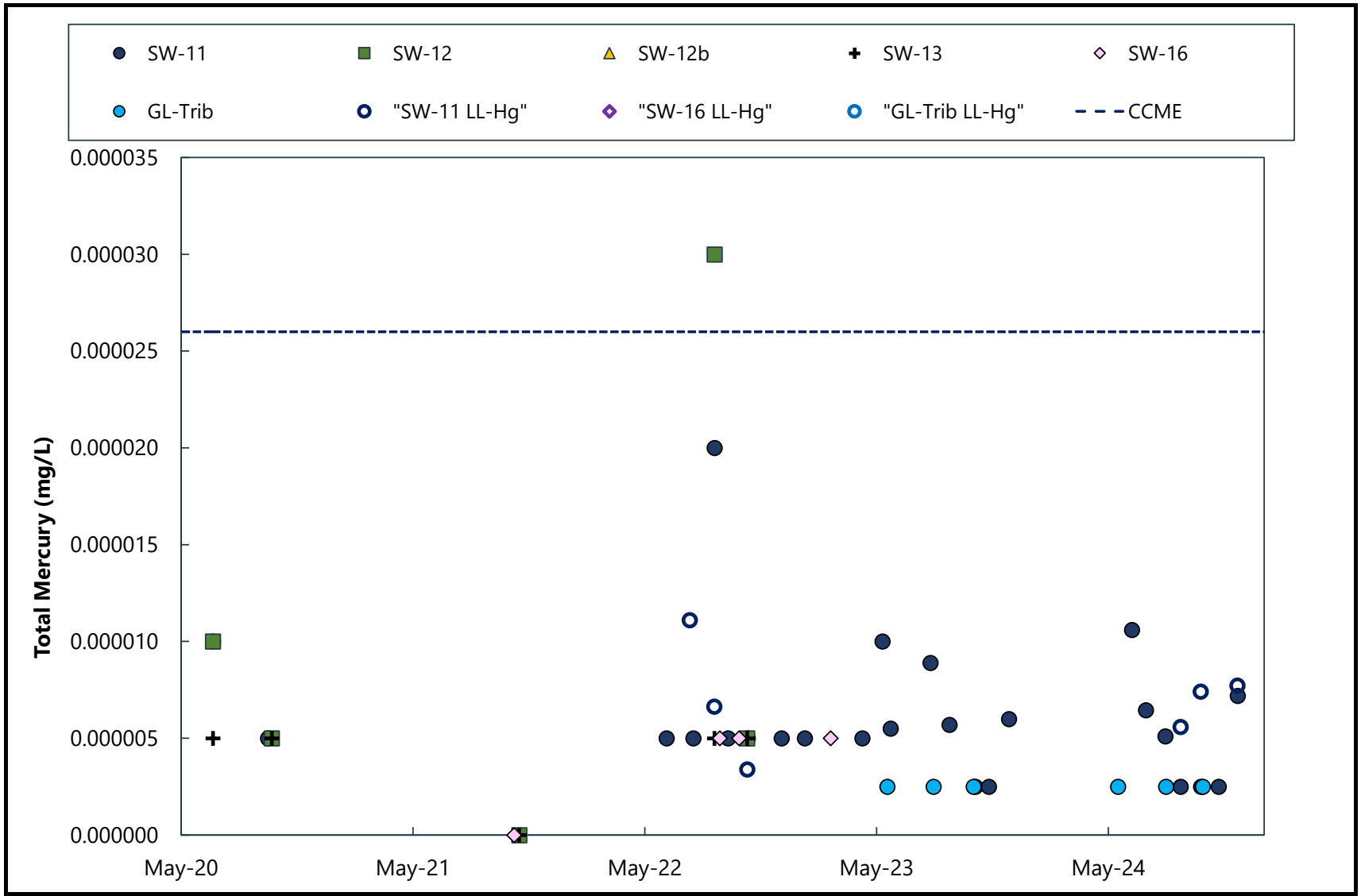
1. FEQG: Federal Environmental Quality Guidelines
2. FEQG is calculated to be 0.76 mg/L

Total Iron - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-57



Notes:

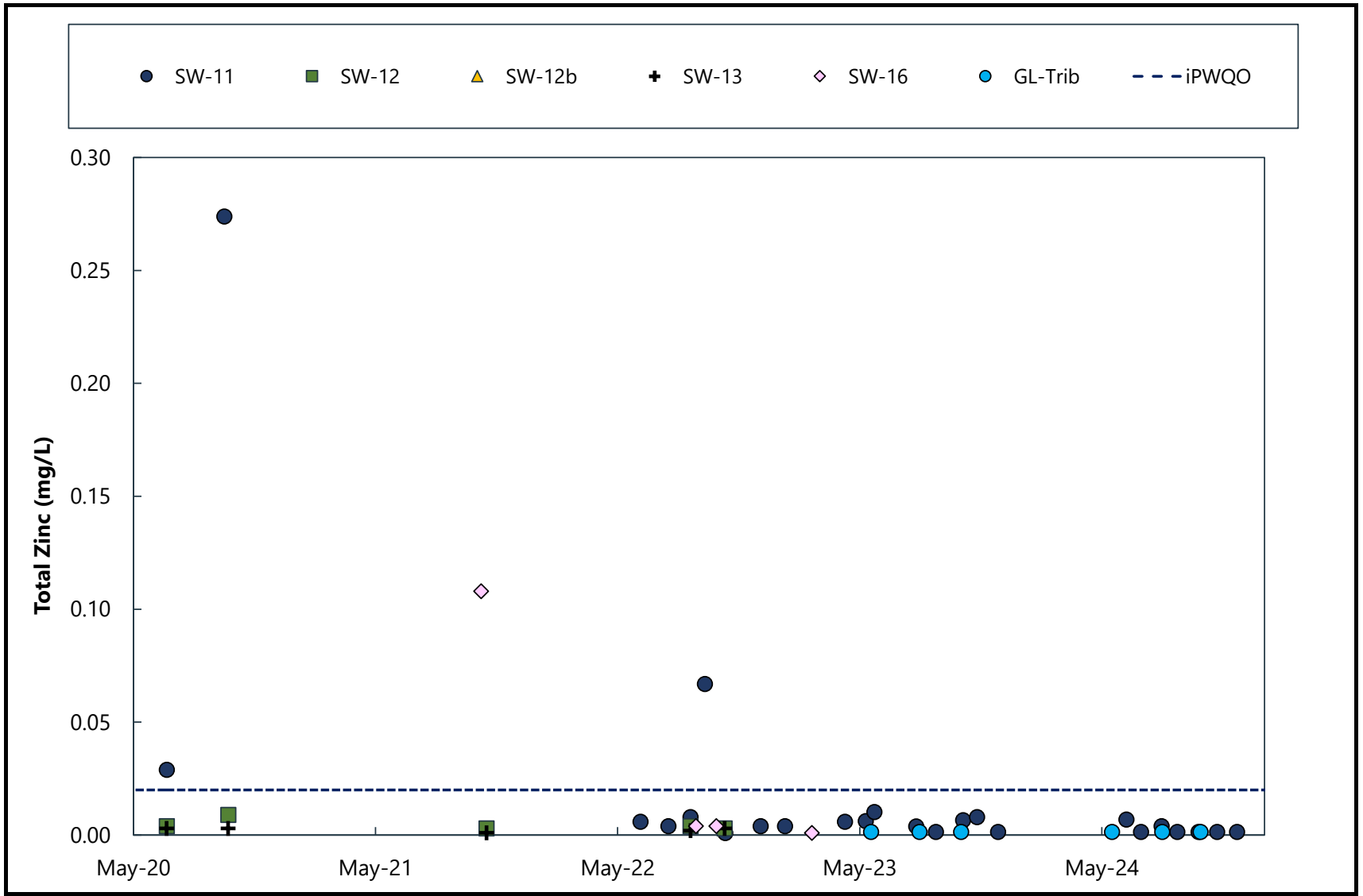
1. CCME: Canadian Council of Ministers of the Environment

Total Mercury - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-58



Notes:

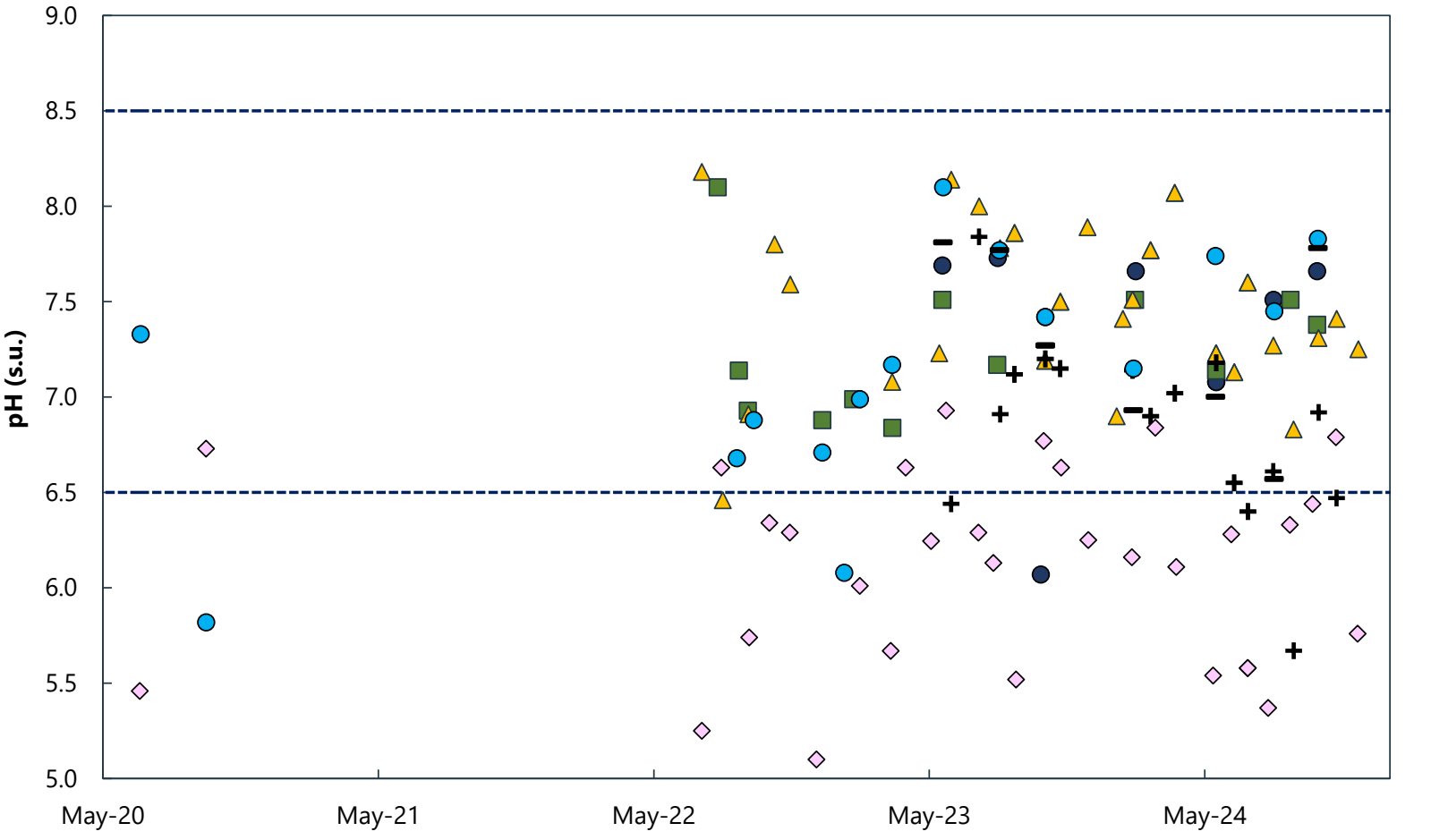
1. iPWQO: interim Provincial Water Quality Objective

Total Zinc - Waterbody 6 and Genesse Lake Tributaries

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-59



Notes:

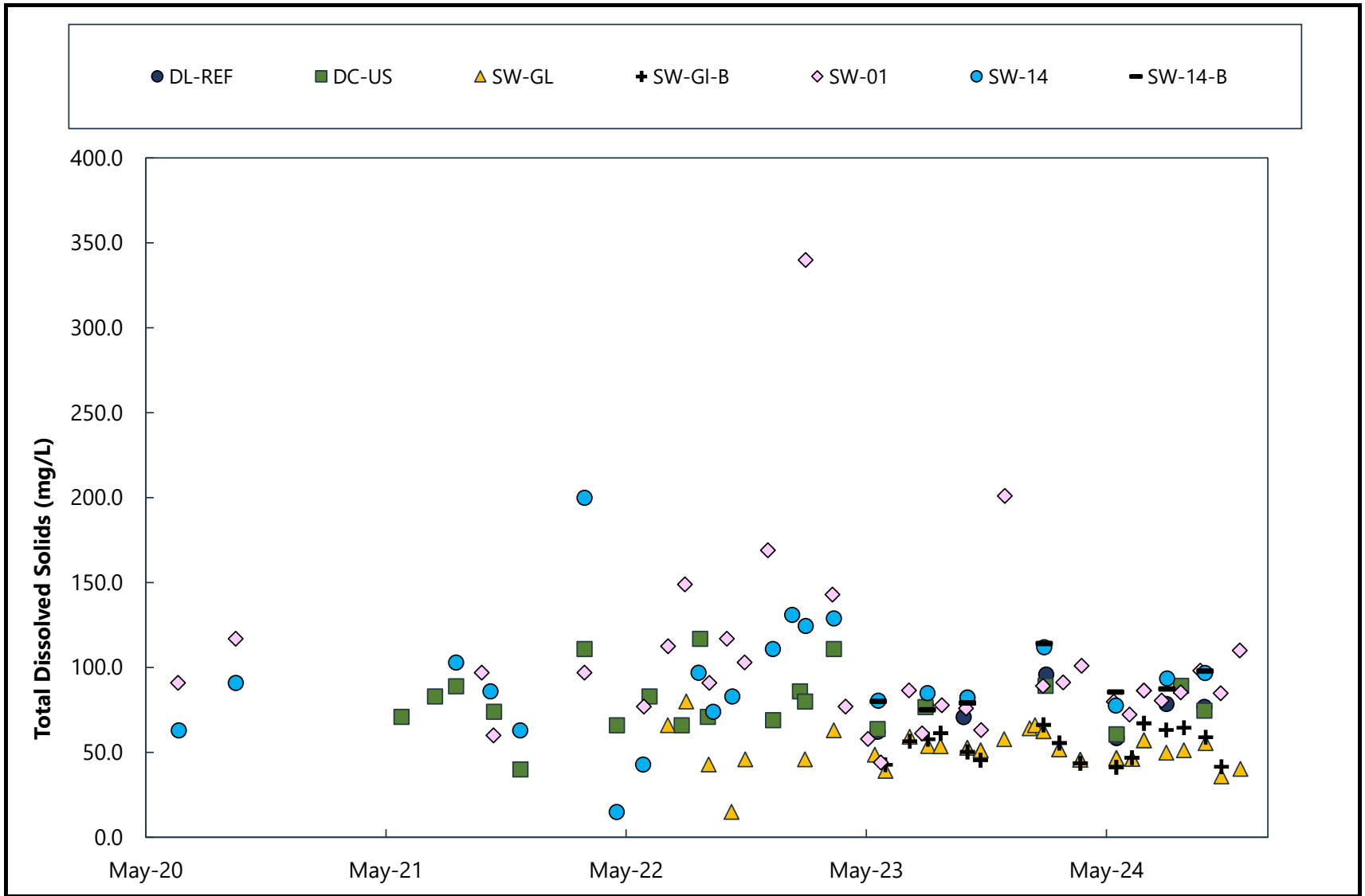
1. PWQO: Provincial Water Quality Objectives
2. pH shown is field pH.

Field pH - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-60



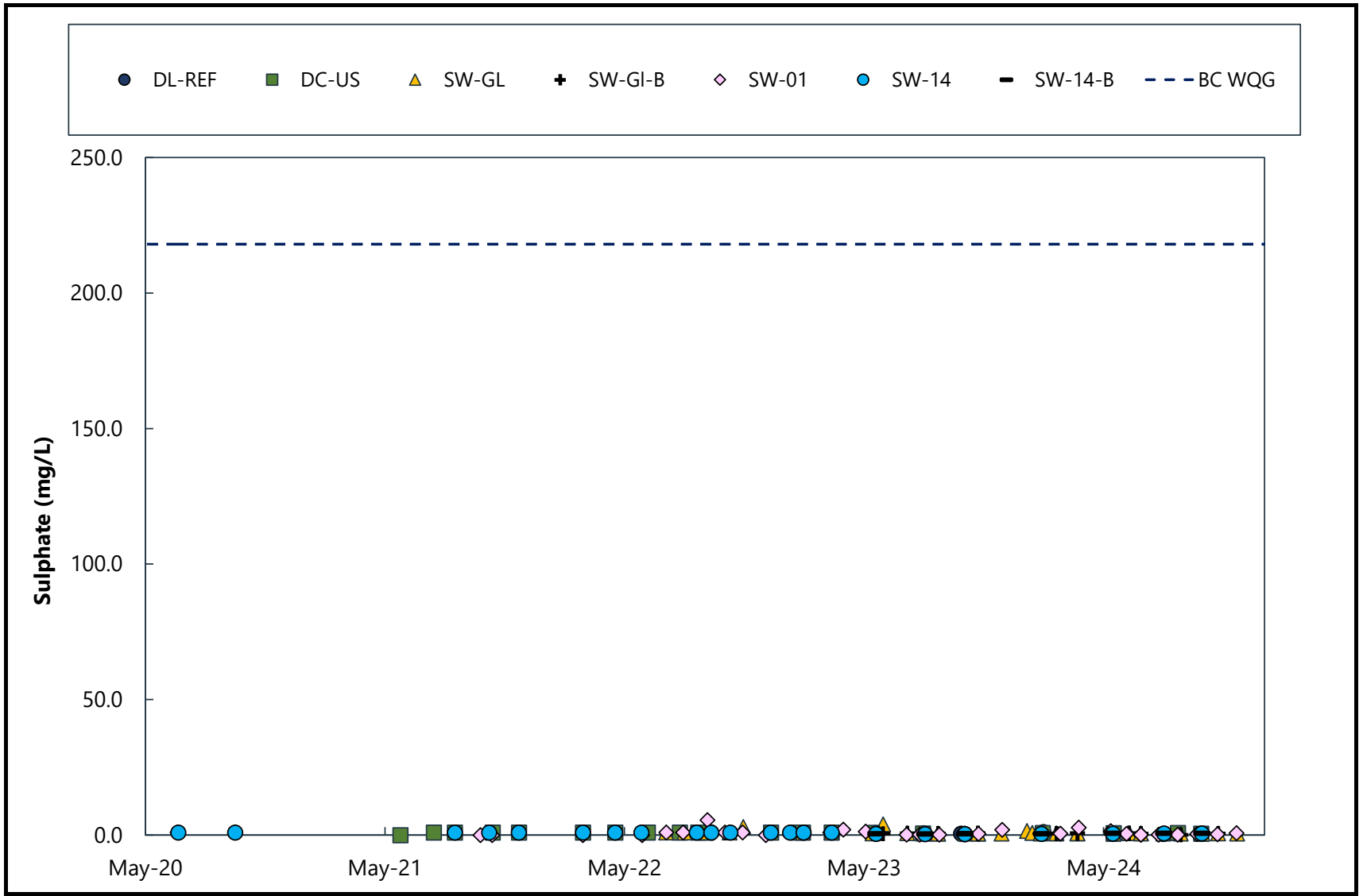
Notes:

Total Dissolved Solids - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-61



Notes:

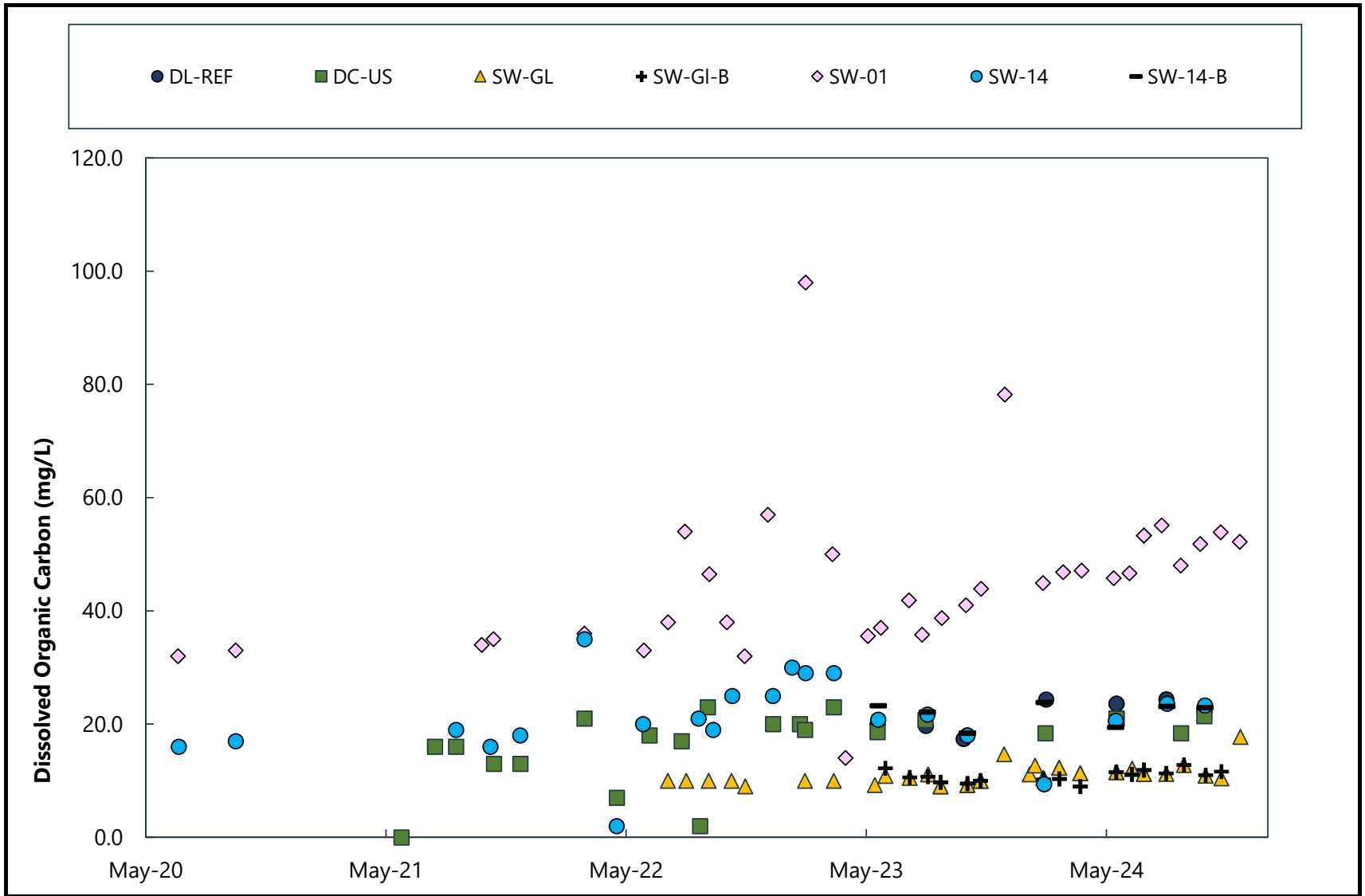
1. BC WQG: British Columbia long-term exposure guidelines (freshwater) are accessed here in the absence of Ontario or Federal guidelines

Sulphate - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-62



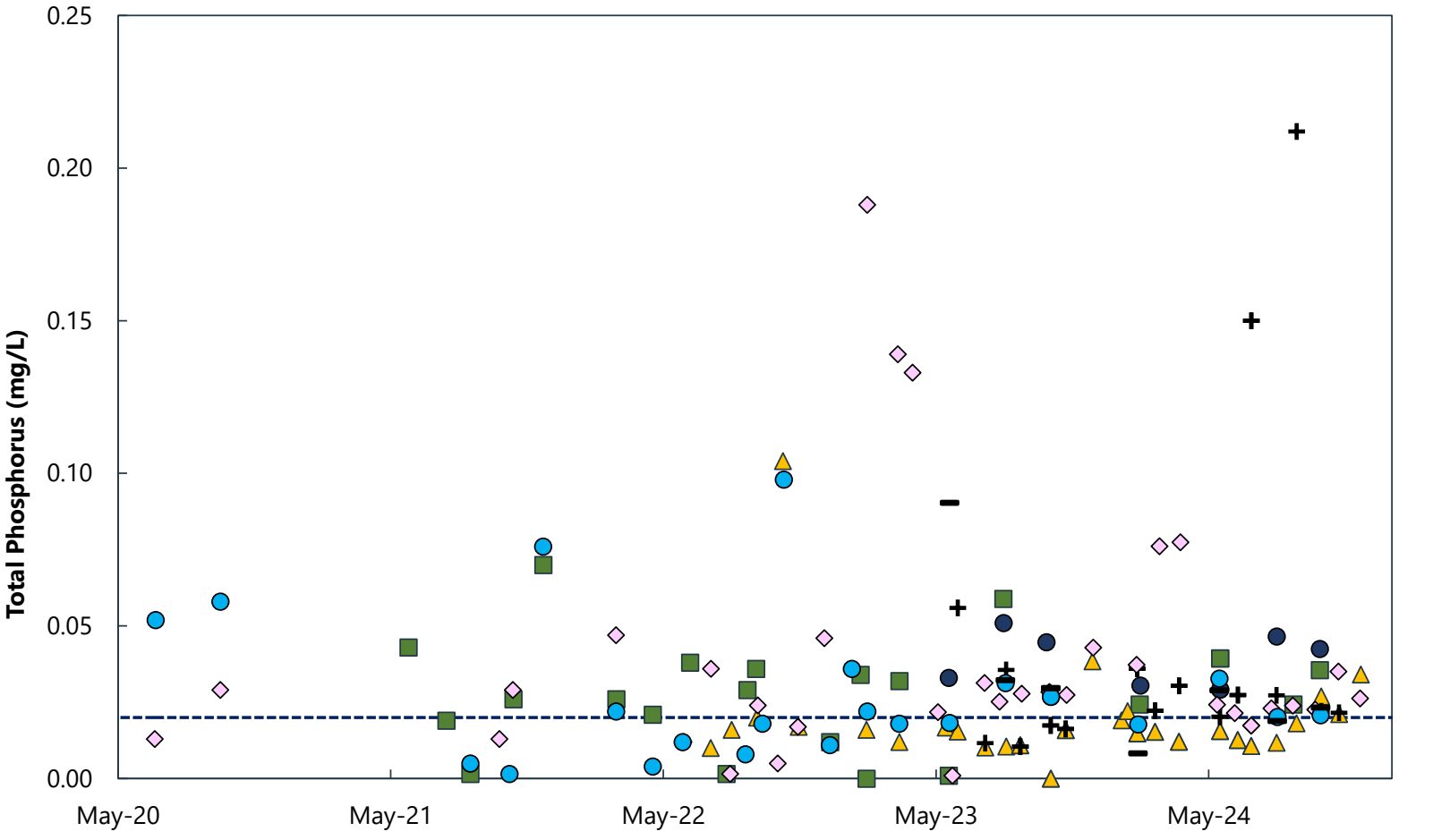
Notes:

Dissolved Organic Carbon - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-63



Notes:

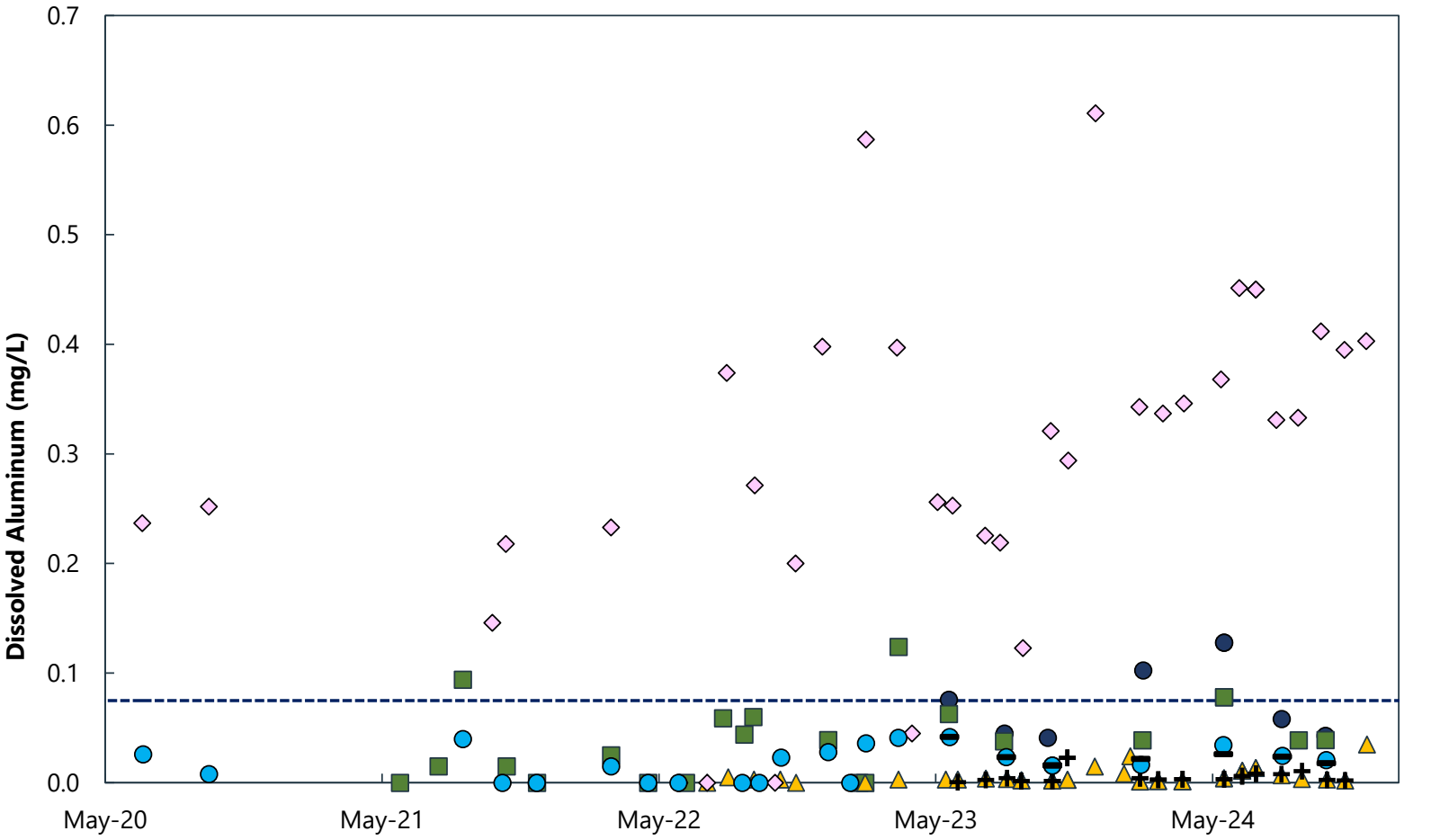
1. iPWQO: interim Provincial Water Quality Objective
2. Total P shown is from colourmetric analysis

Phosphorus - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-64



Notes:

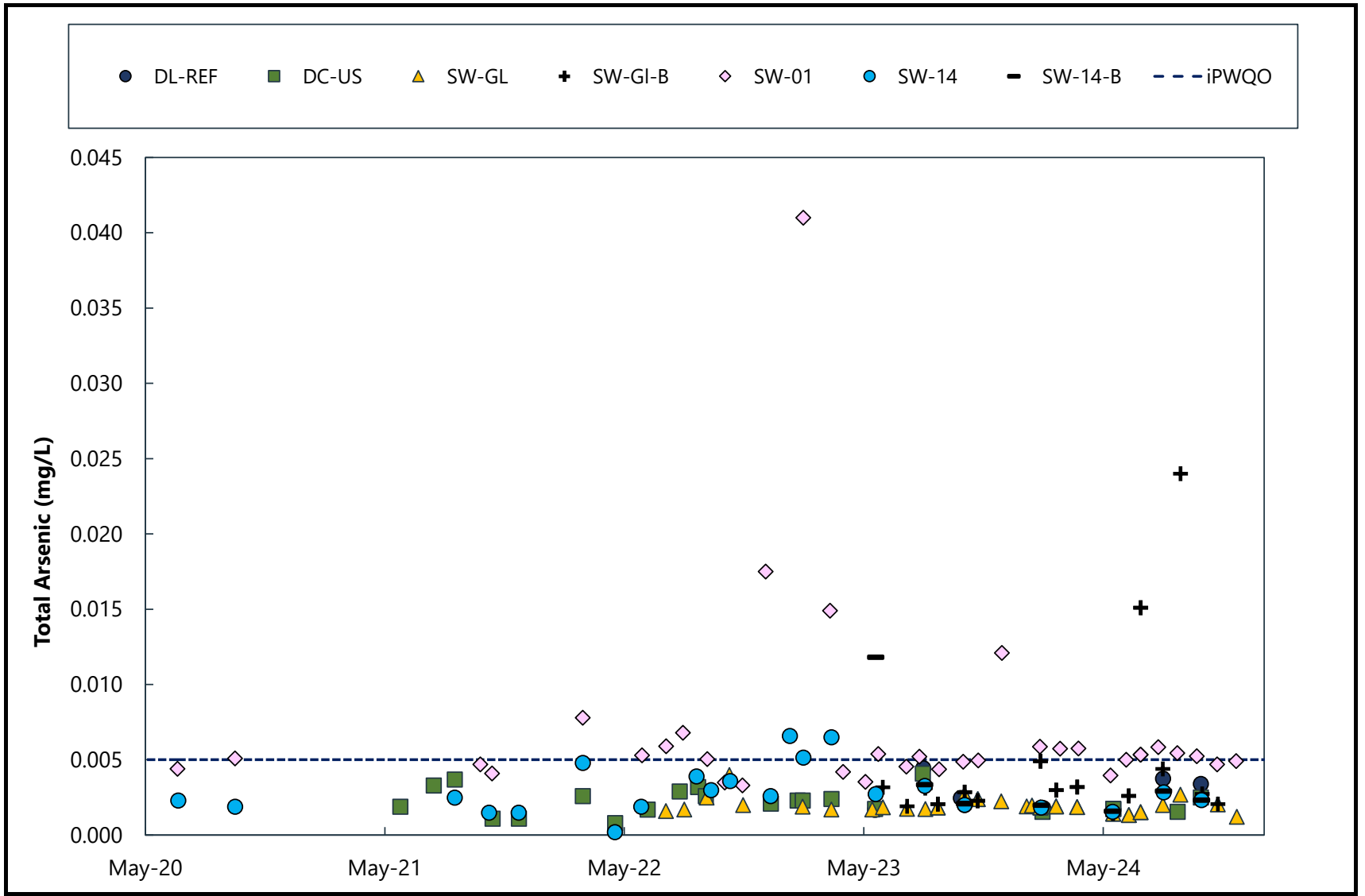
1. iPWQO: interim Provincial Water Quality Objective

Dissolved Aluminum - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-65



Notes:

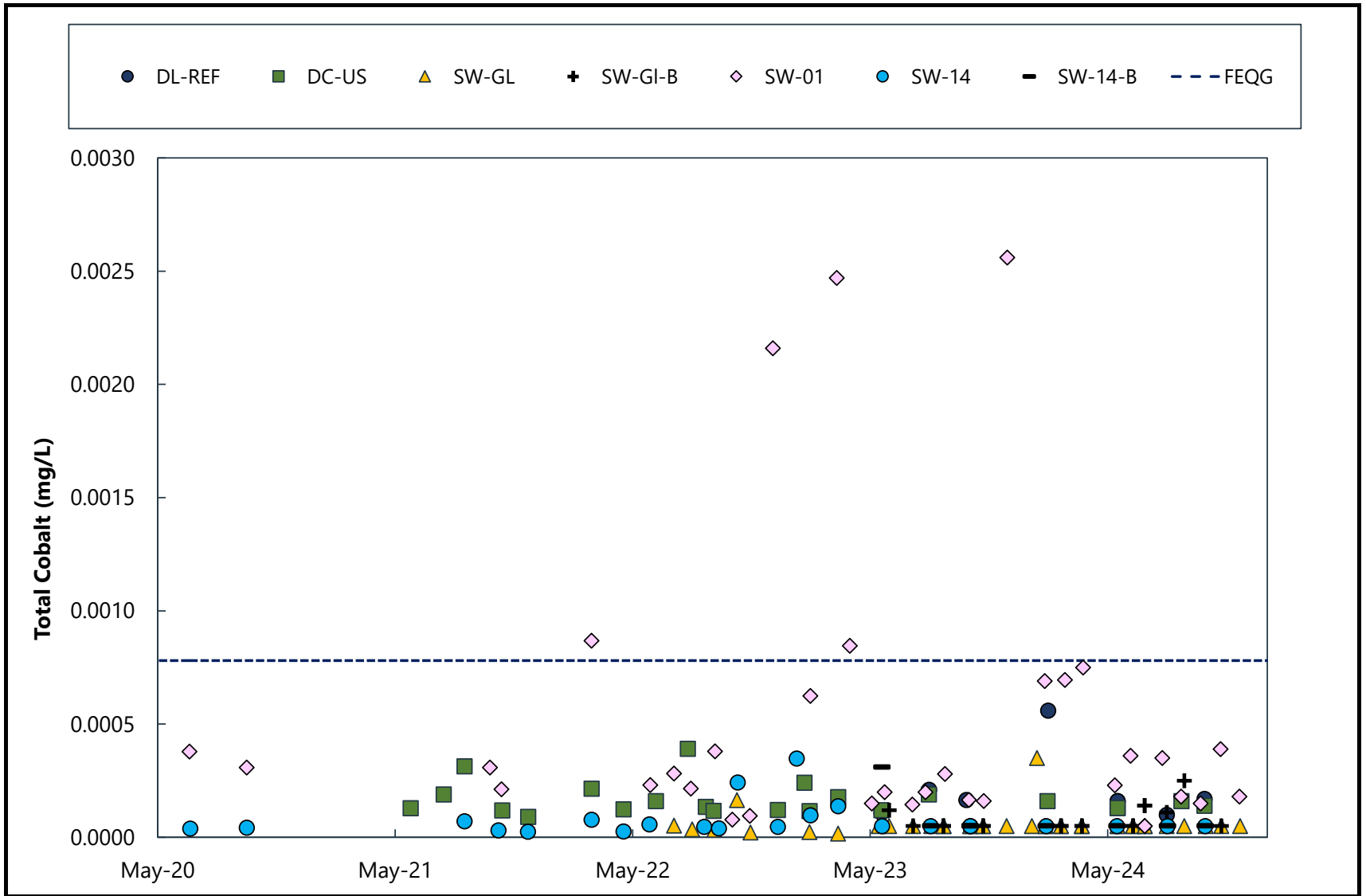
1. iPWQO: interim Provincial Water Quality Objective

Total Arsenic - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-66



Notes:

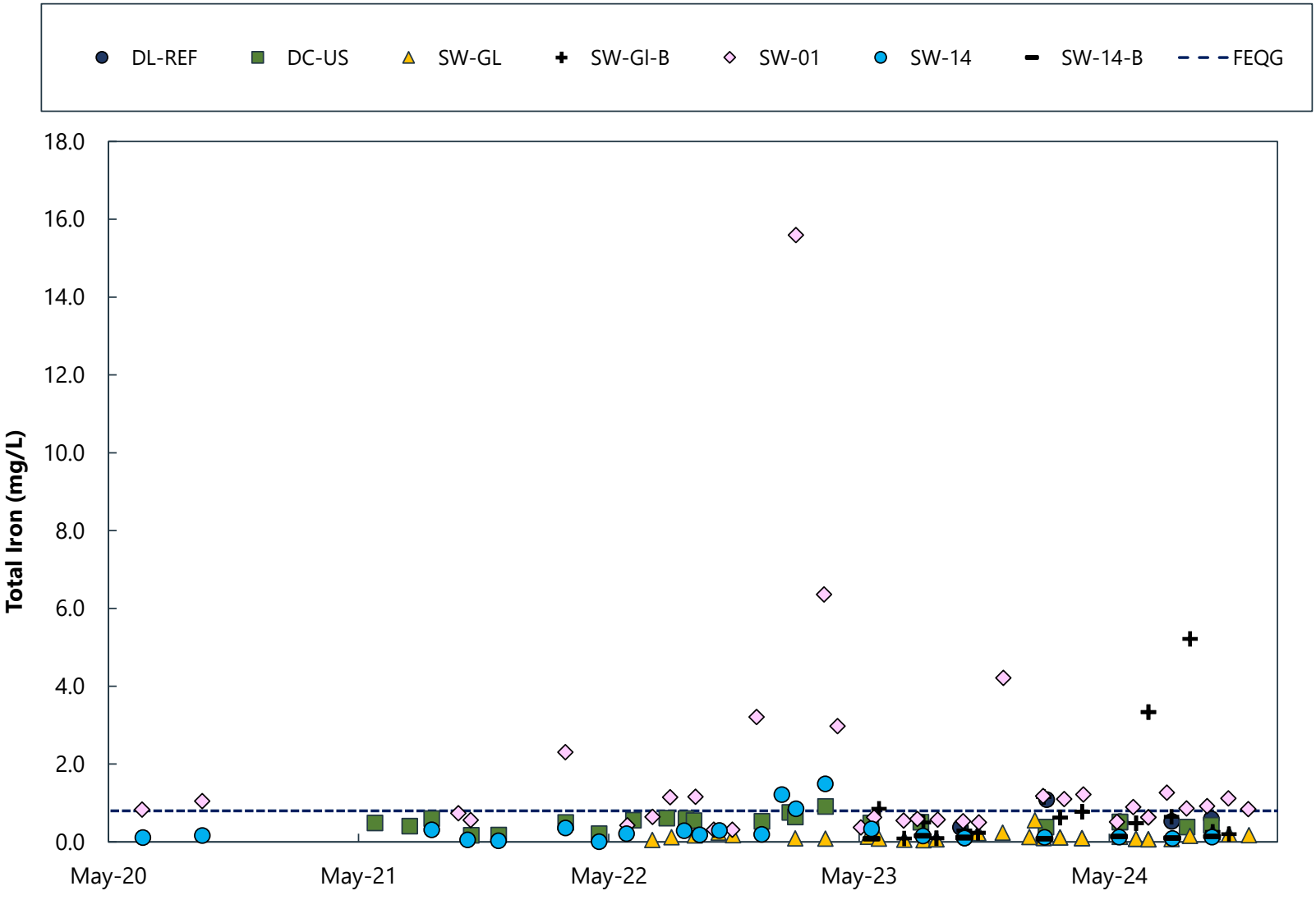
1. FEQG: Federal Environmental Quality Guidelines

Total Cobalt - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-67



Notes:

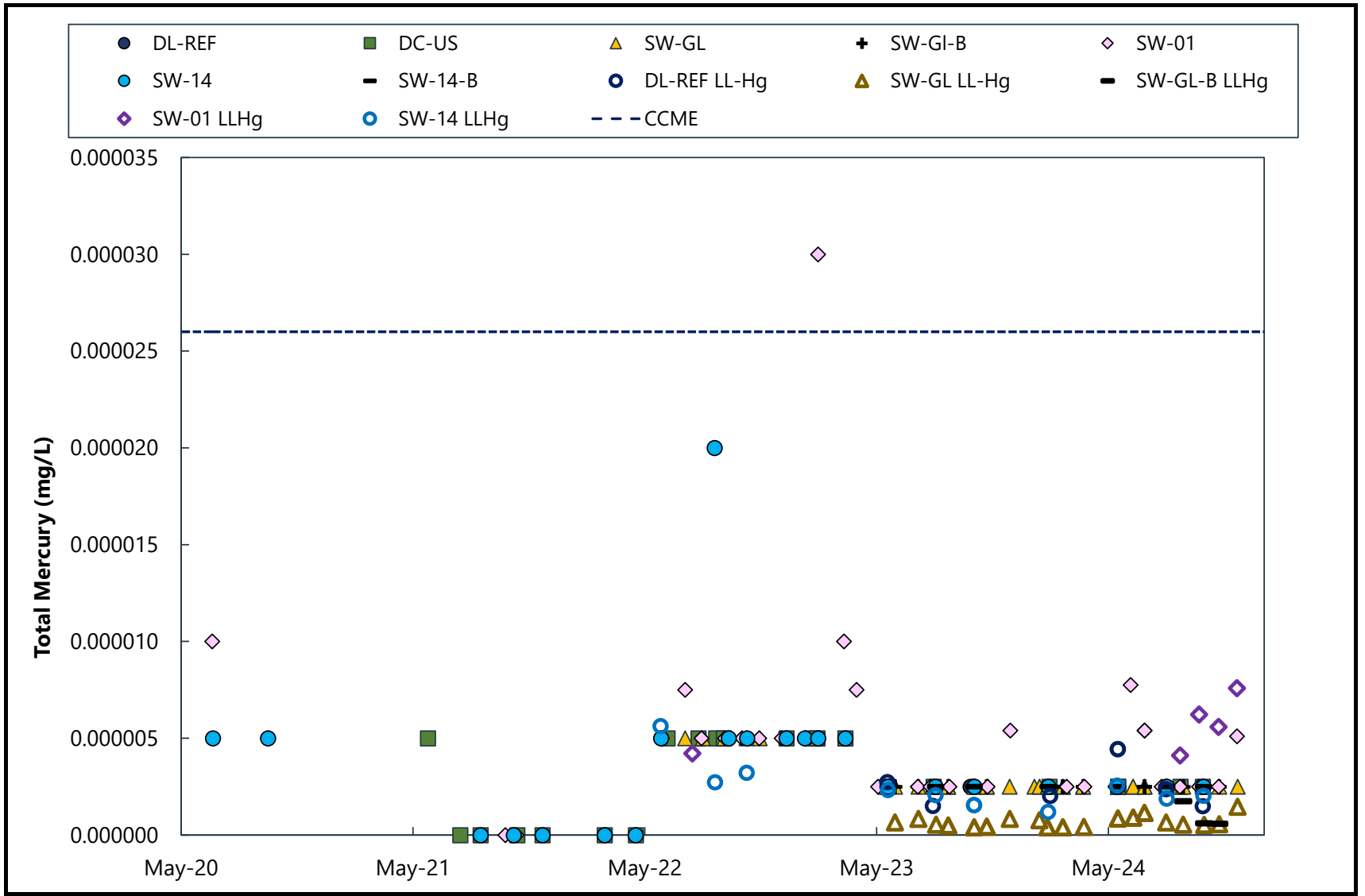
1. FEQG: Federal Environmental Quality Guidelines
2. FEQG is calculated to be 0.8 mg/L

Total Iron - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-68



Notes:

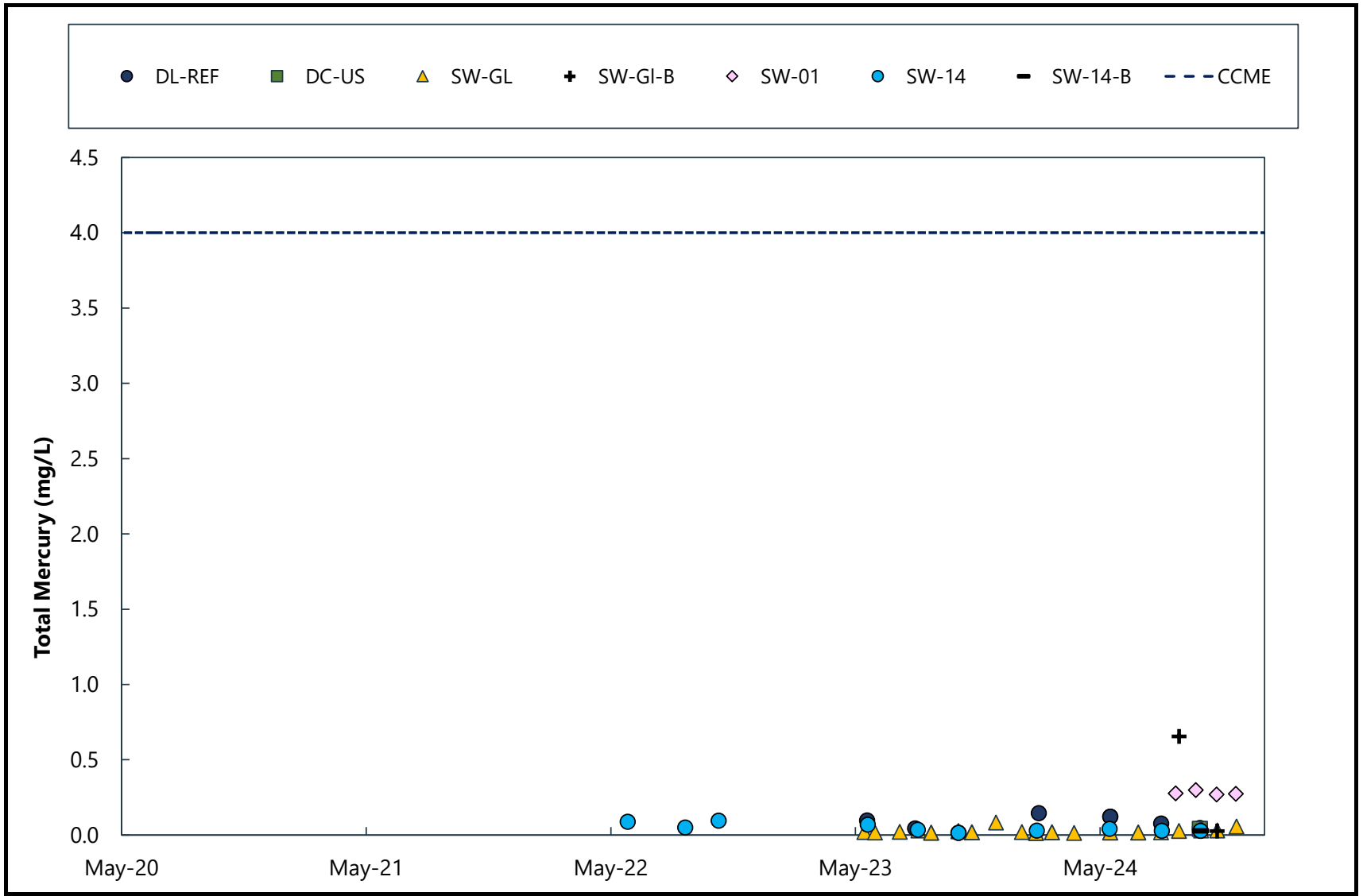
1. CCME: Canadian Council of Ministers of the Environment

Total Mercury - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-69



Notes:

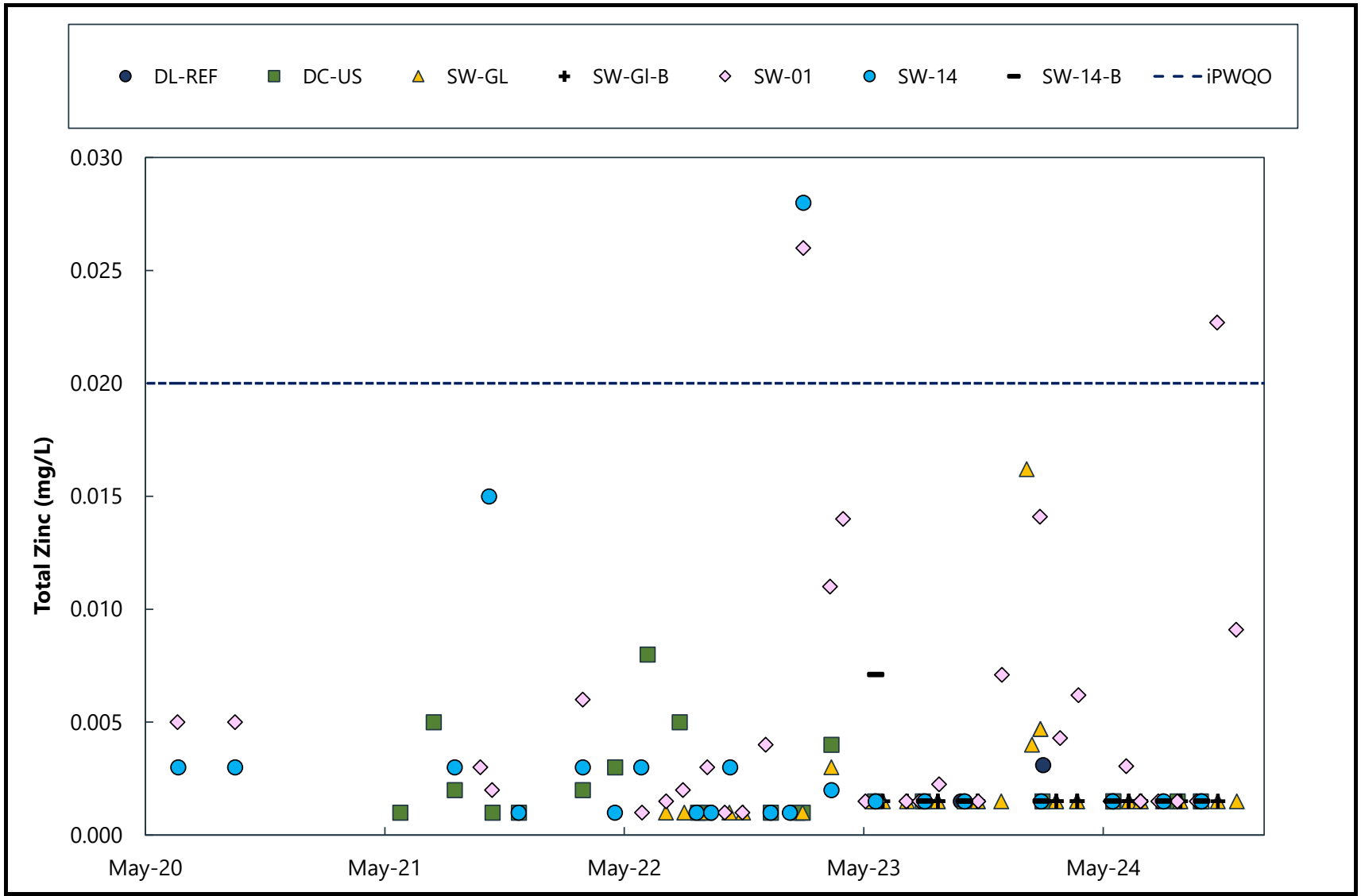
1. CCME: Canadian Council of Ministers of the Environment

Total Mercury - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-70



Notes:

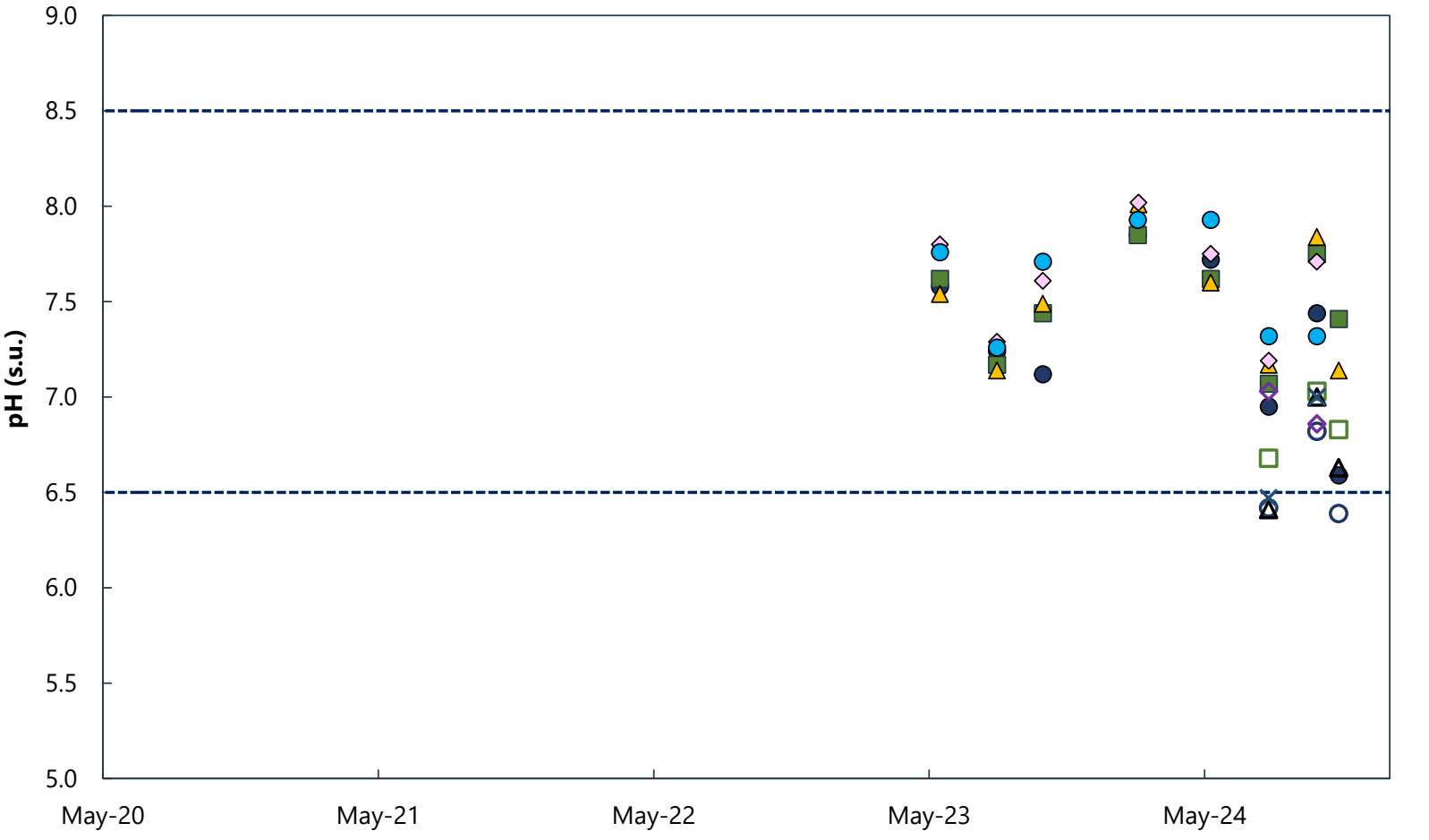
1. iPWQO: interim Provincial Water Quality Objective

Total Zinc - Project Area Waterbodies

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-71



Notes:

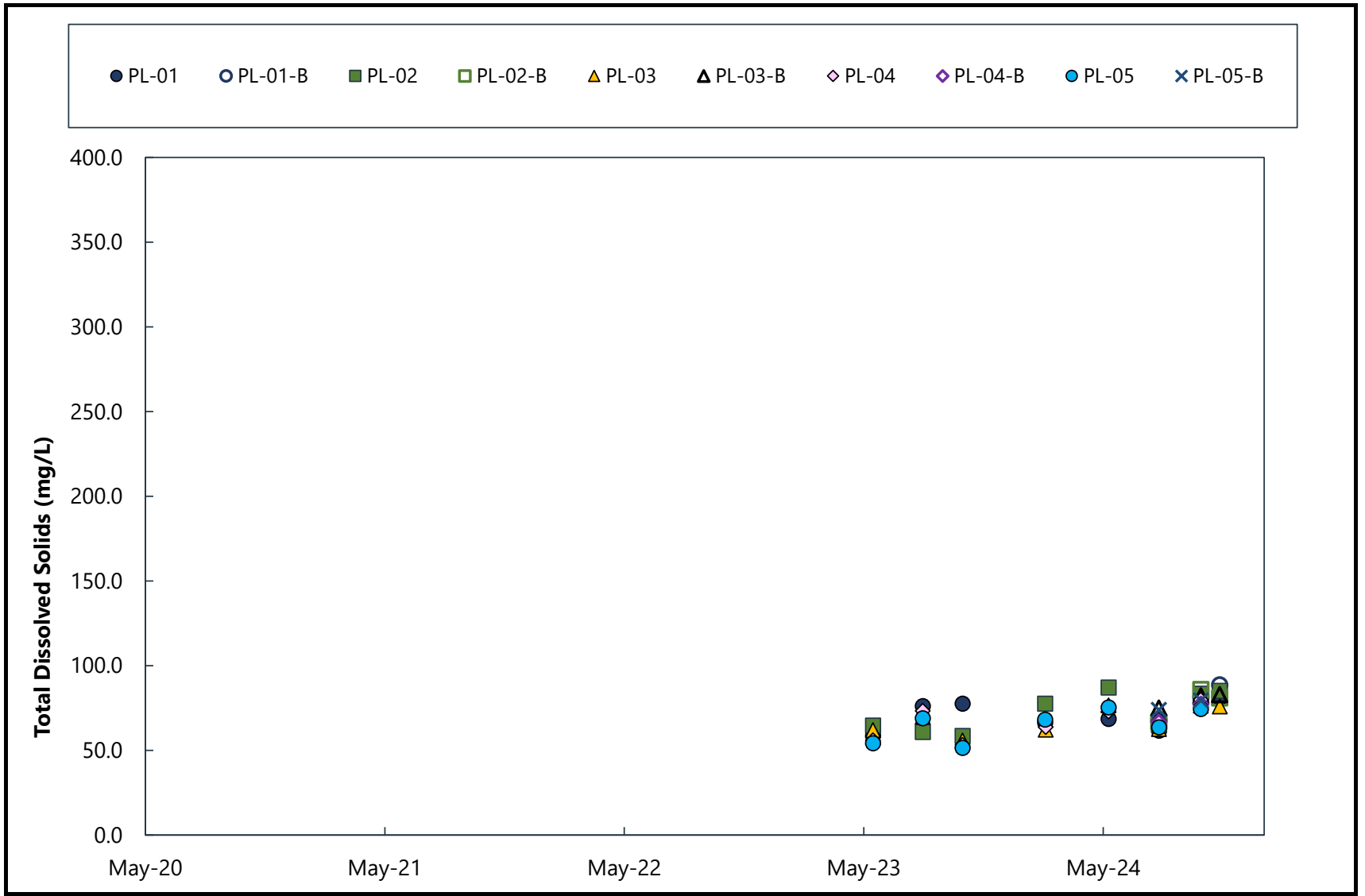
1. PWQO: Provincial Water Quality Objectives
2. pH shown is field pH.
3. B denotes samples from the bottom of the lake

Field pH - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-72



Notes:

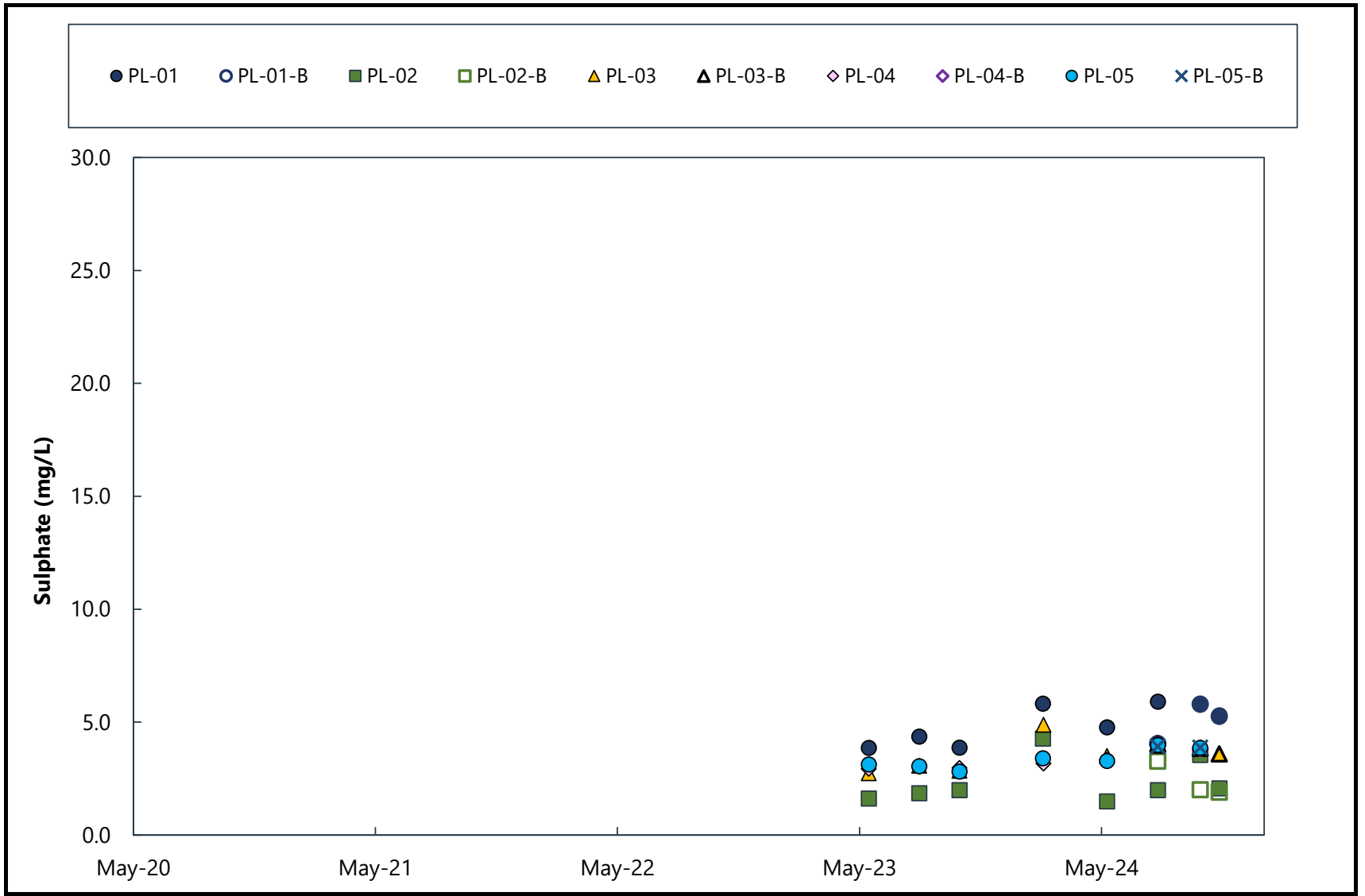
1. B denotes samples from the bottom of the lake

Total Dissolved Solids - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-73



Notes:

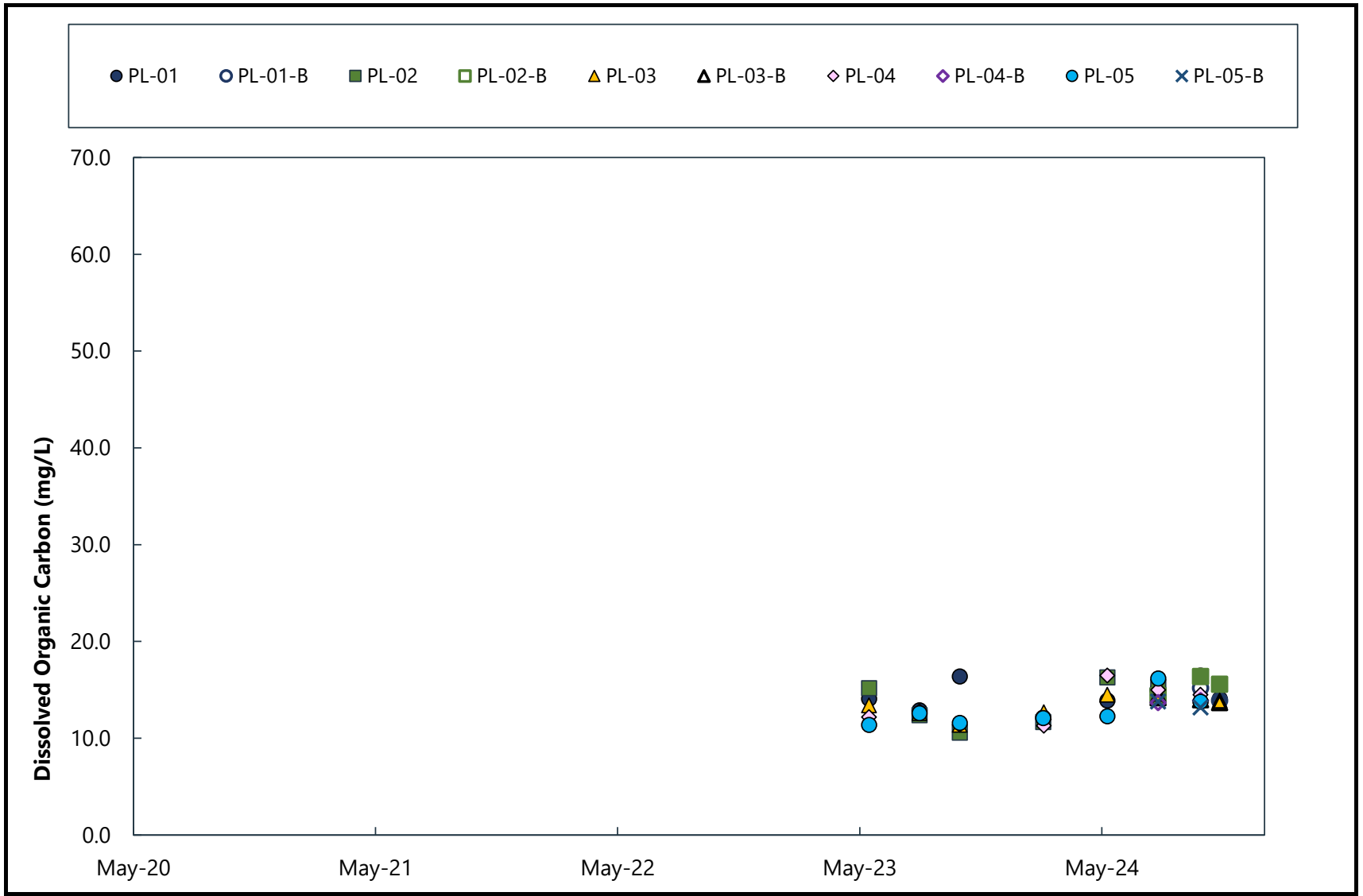
1. BC WQG: British Columbia long-term exposure guidelines (freshwater) are accessed here in the absence of Ontario or Federal guidelines
2. B denotes samples from the bottom of the lake

Sulphate - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-74



Notes:

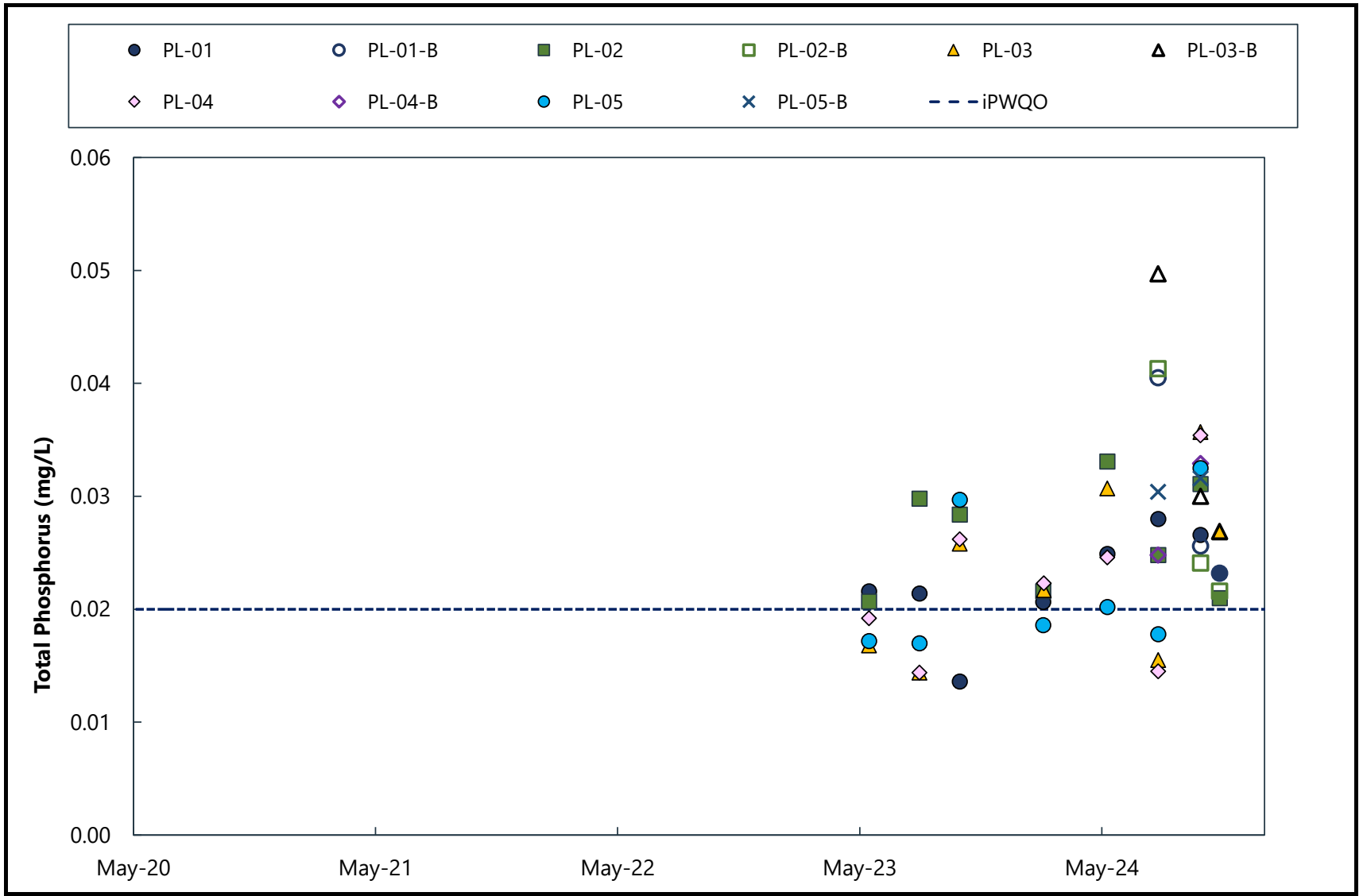
1. B denotes samples from the bottom of the lake

Dissolved Organic Carbon - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-75



Notes:

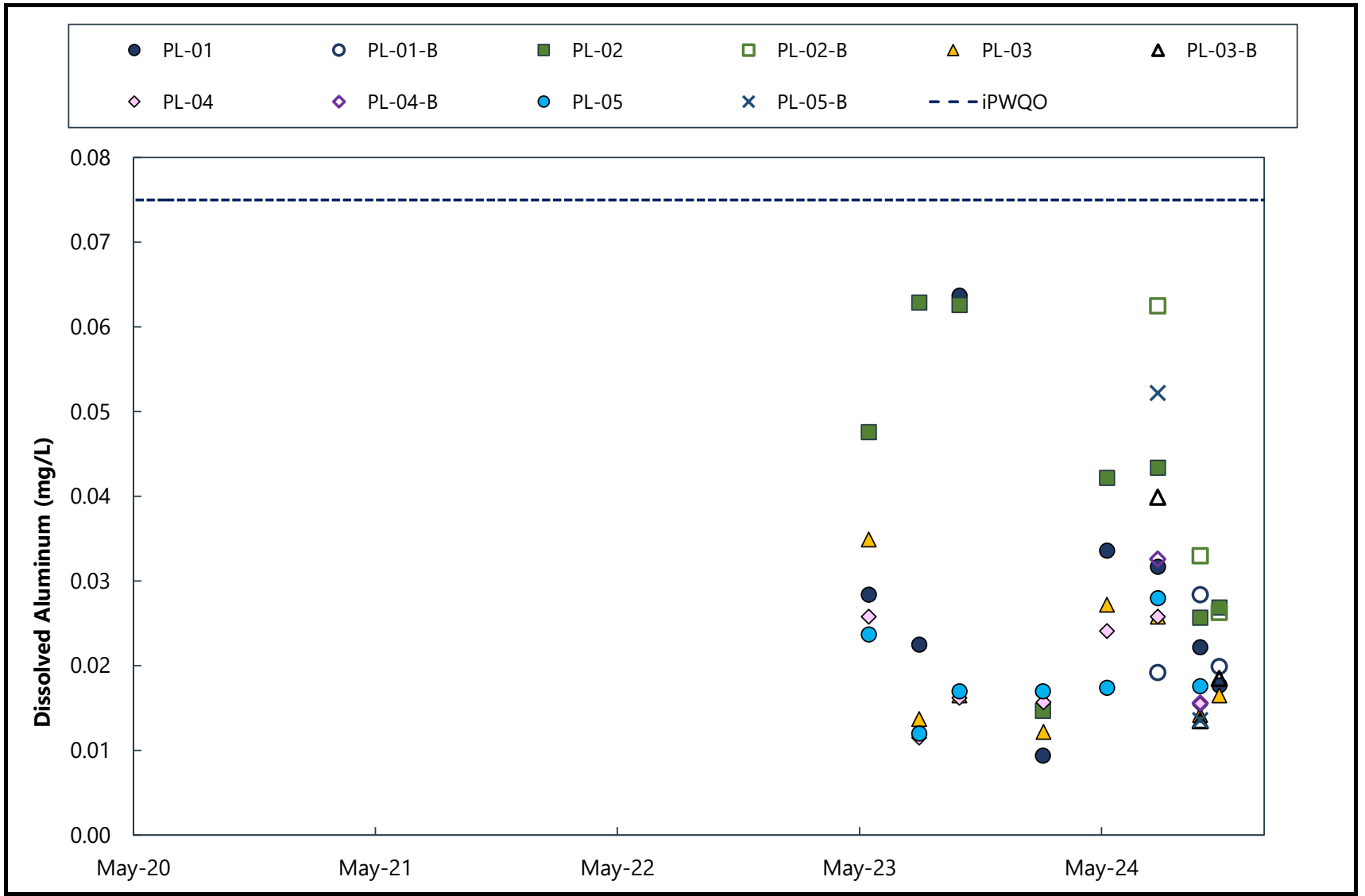
1. iPWQO: interim Provincial Water Quality Objective
2. Total P shown is from colourmetric analysis
3. B denotes samples from the bottom of the lake

Phosphorus - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-76



Notes:

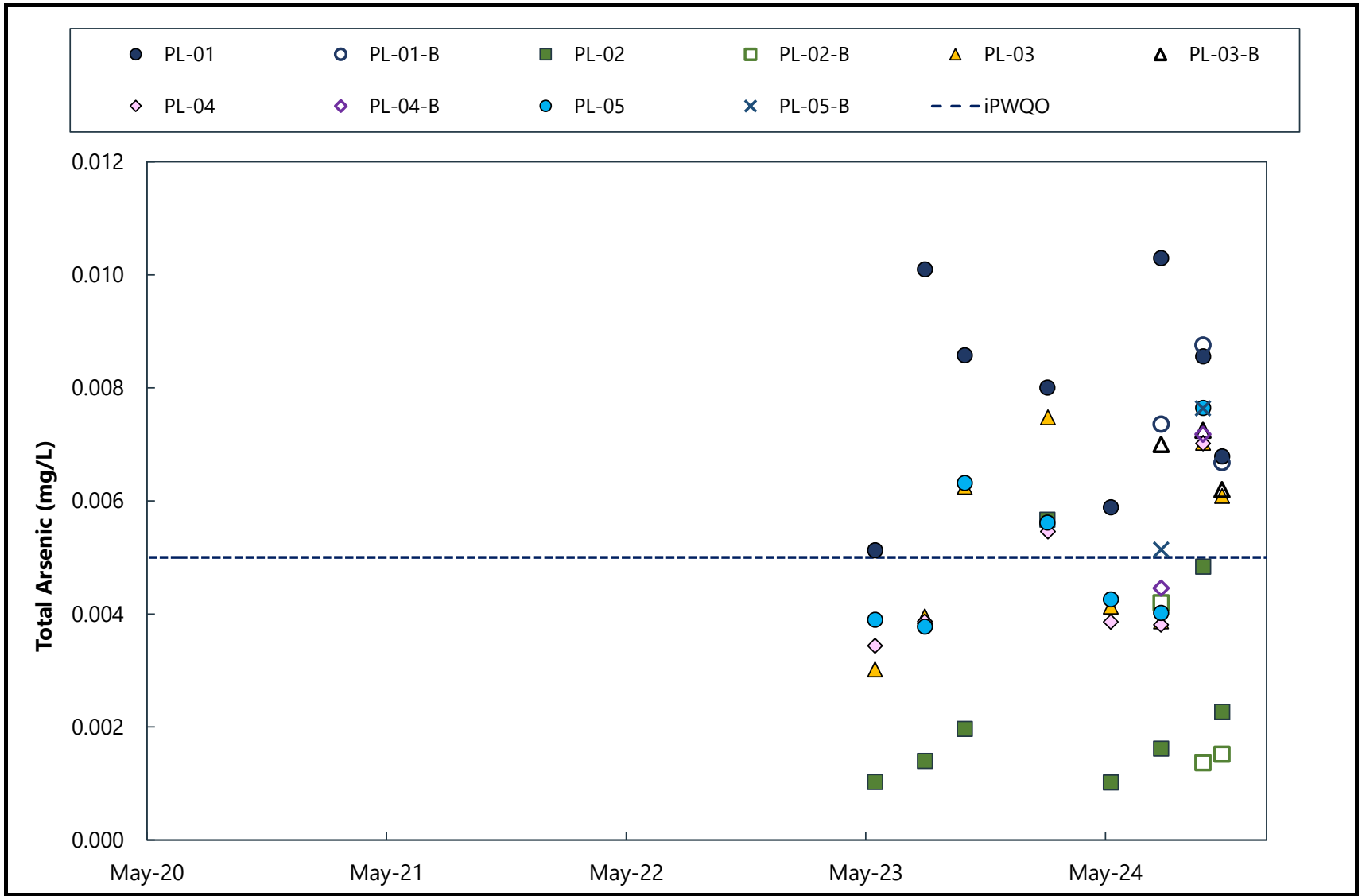
1. iPWQO: interim Provincial Water Quality Objective
2. B denotes samples from the bottom of the lake

Dissolved Aluminum - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-77



Notes:

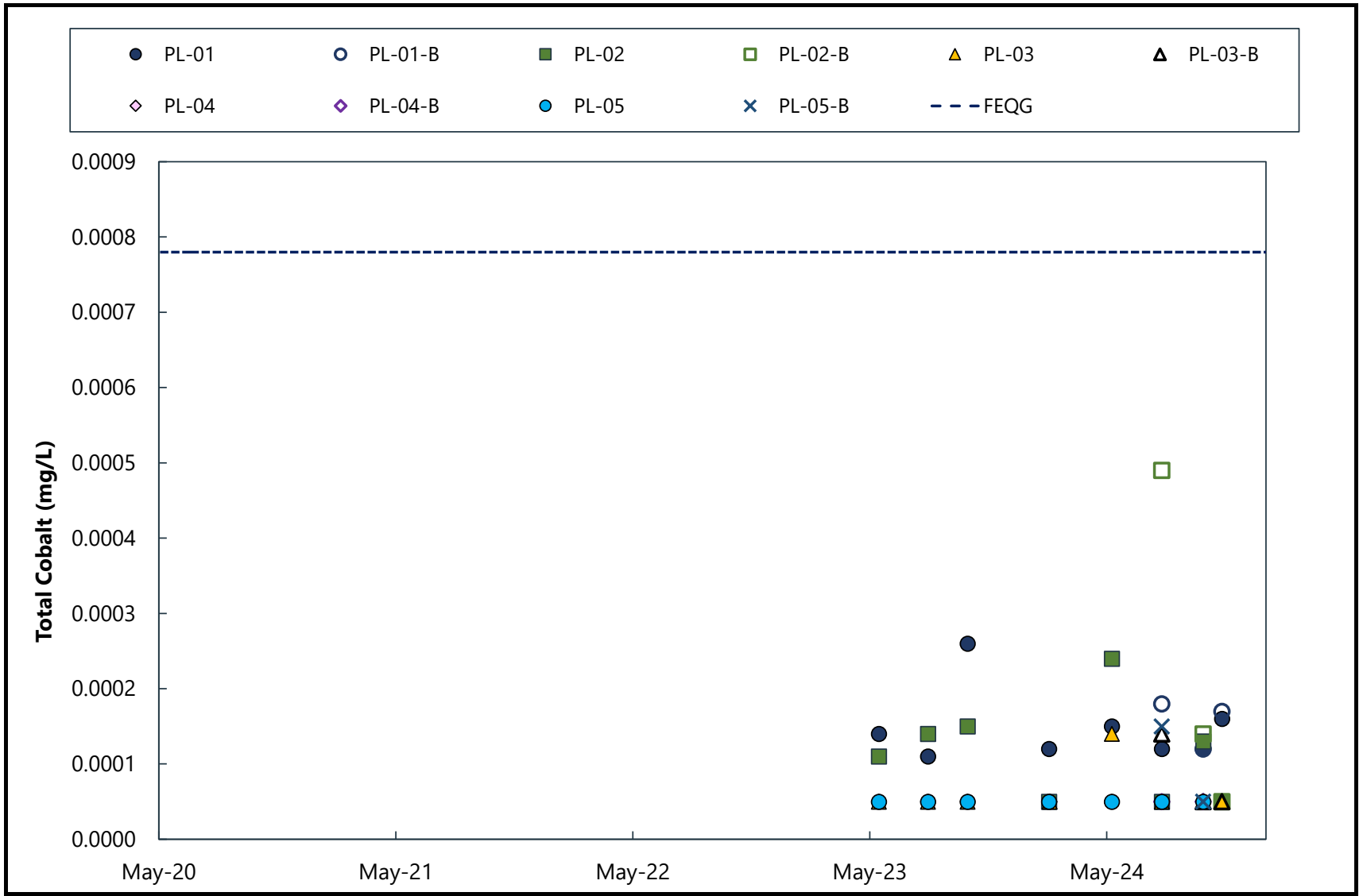
1. iPWQO: interim Provincial Water Quality Objective
2. B denotes samples from the bottom of the lake

Total Arsenic - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-78



Notes:

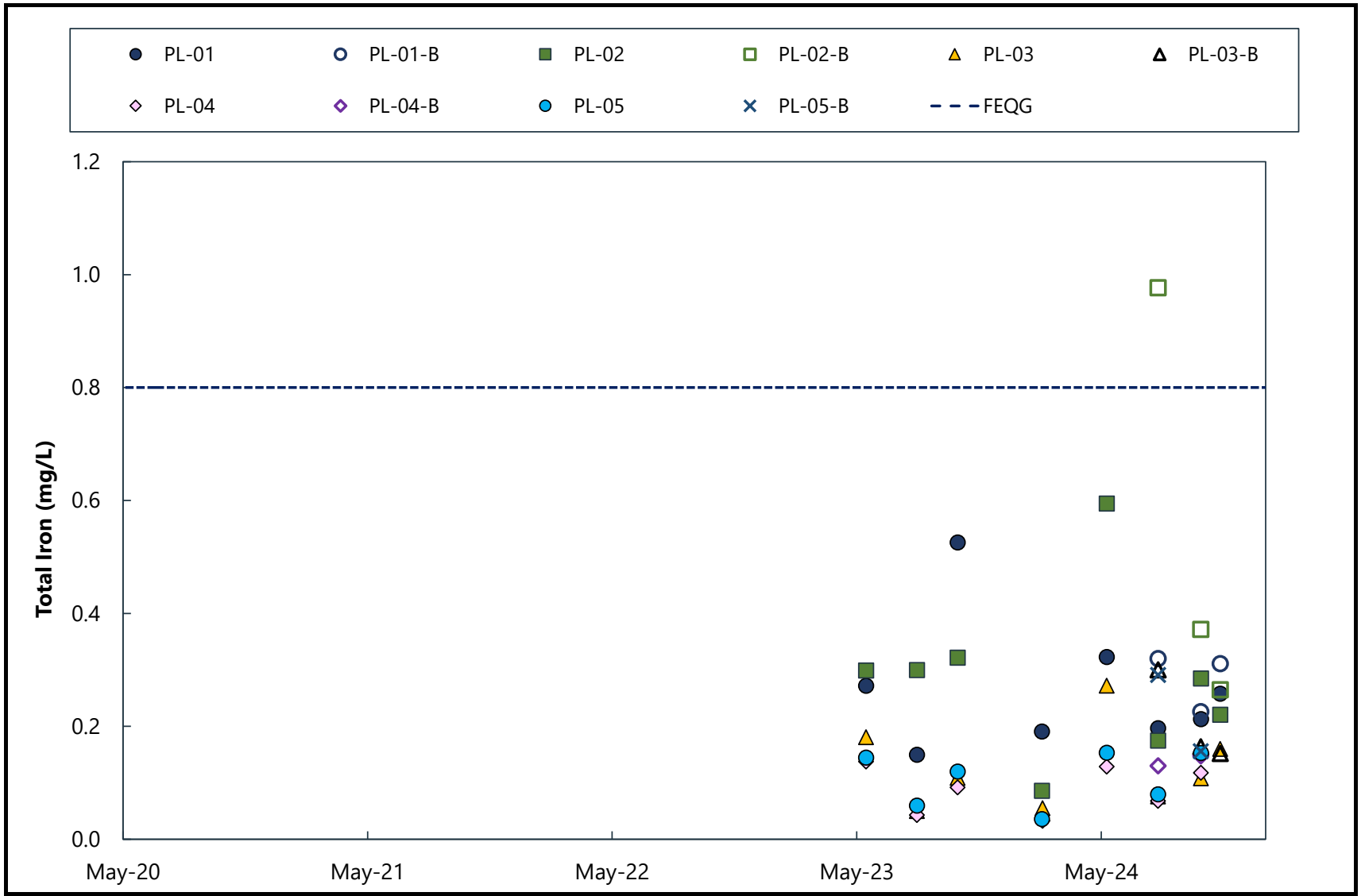
1. FEQG: Federal Environmental Quality Guidelines
2. B denotes samples from the bottom of the lake

Total Cobalt - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-79



Notes:

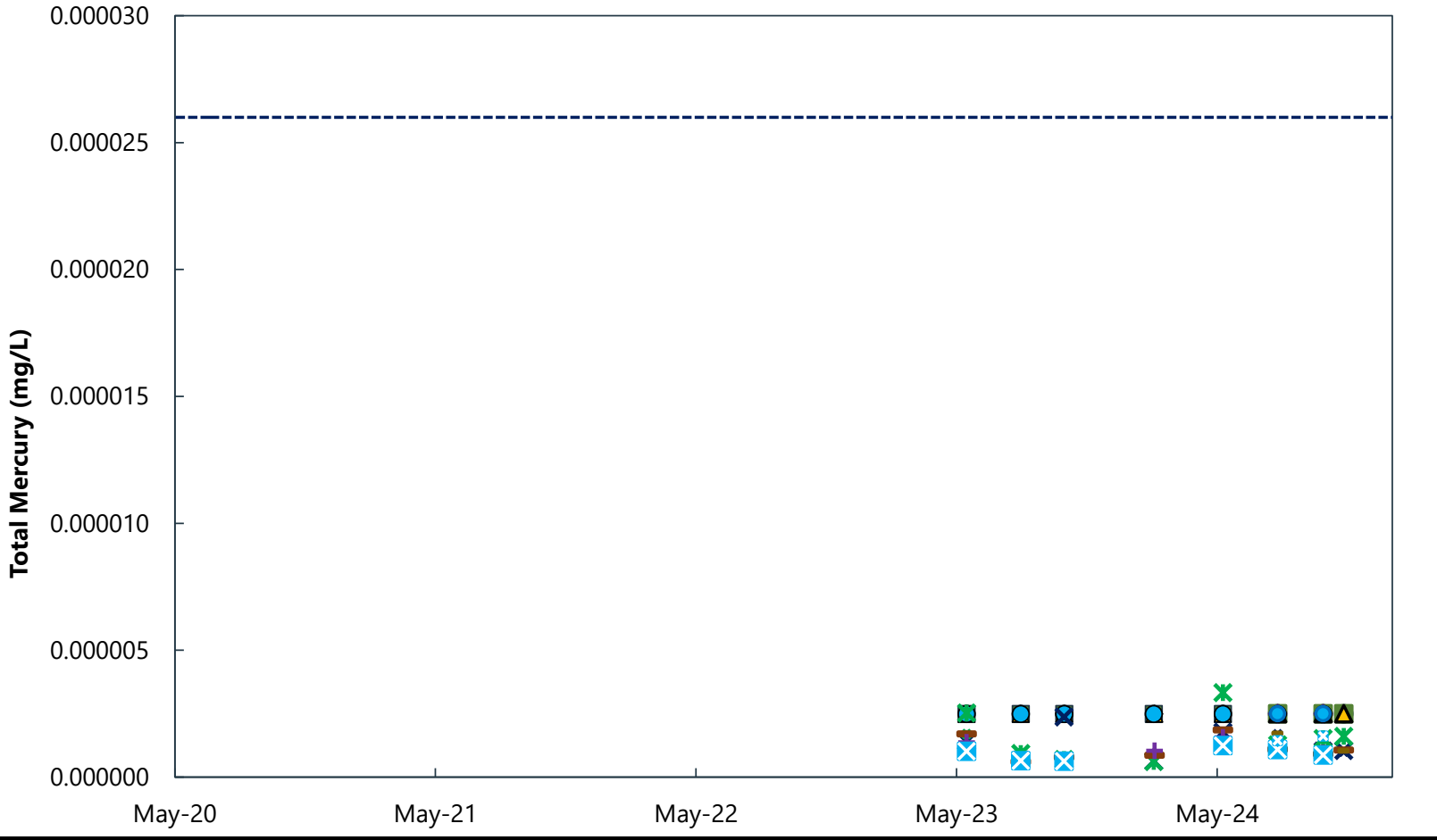
1. FEQG: Federal Environmental Quality Guidelines
2. FEQG is calculated to be 0.8 mg/L
3. B denotes samples from the bottom of the lake

Total Iron - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-80



Notes:

1 - CCME: Canadian Council of Ministers of the Environment

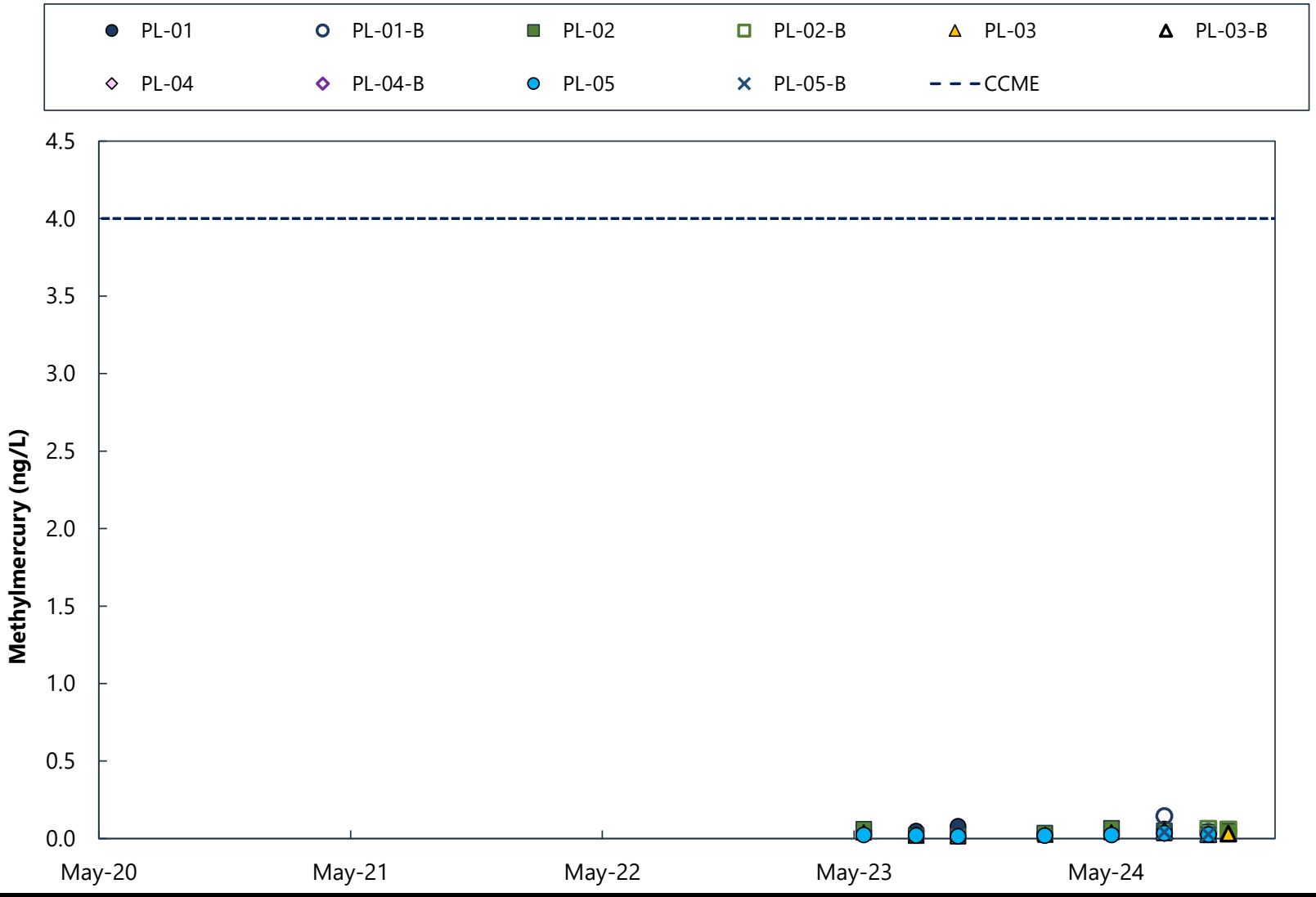
2. B denotes samples from the bottom of the lake

Total Mercury - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-81



Notes:

1 - CCME: Canadian Council of Ministers of the Environment

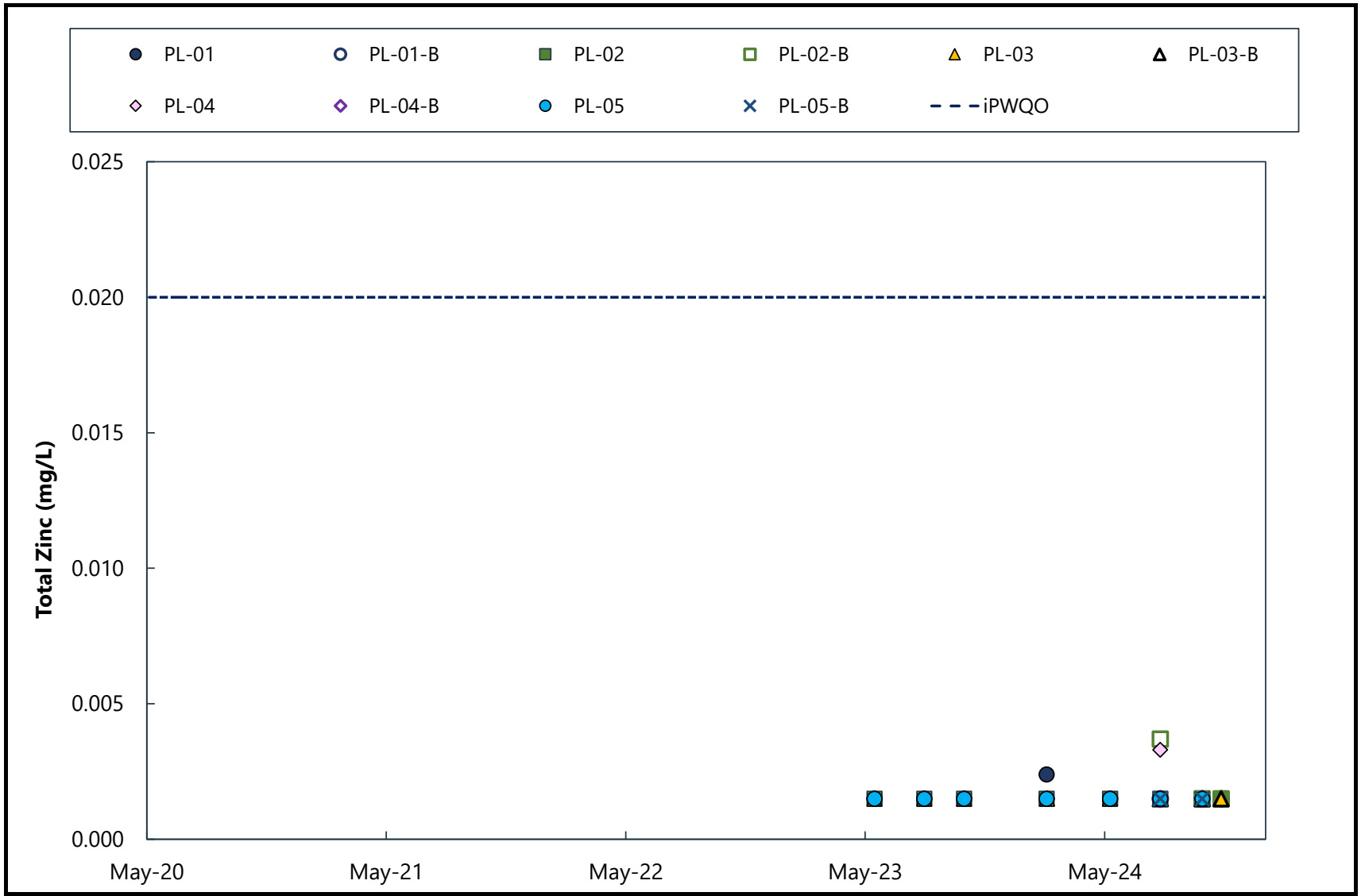
2. B denotes samples from the bottom of the lake

Methylmercury - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-82



Notes:

1. iPWQO: interim Provincial Water Quality Objective
2. B denotes samples from the bottom of the lake

Total Zinc - Pakwash Lake

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	C-83

Appendix D
Tabulated Surface Water Quality Data

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005											
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004											
CR-DS	SGS	2022-06-05	CA15234-JUN22		7.57		< 2					25		0.129
CR-DS	SGS	2022-07-28		7.03	7.35	19.7	< 2					30		0.468
CR-DS	SGS	2022-08-23	CA15433-AUG22	6.26	7.22	122	< 2					27		0.169
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010											
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009											
CR-DS	SGS	2022-09-13	CA15263-SEP22	7.12	7.26	17.8	< 2					28	0.012	0.158
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002											
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002											
CR-DS	SGS	2022-10-18	CA15422-OCT22	6.5	7.66	5.76	< 2					30		0.179
CR-DS	SGS	2022-11-08	CA15232-NOV22	7.16	7.55	3.3	< 2					31		0.48
CR-DS	SGS	2023-01-18	CA13675-JAN23	6.15	7.25	0.33	< 2					35		0.089
CR-DS	SGS	2023-02-13	CA15347-FEB23	7.46	7.65	1.82	< 2					38	0.014	0.092
CR-DS	SGS	2023-02-13	CA15347-FEB23	7.46	7.75	1.82	< 2					45	0.012	0.093
CR-DS	SGS	2023-03-21	CA15408-MAR23	6.33	7.23	2.14	< 2					32	0.015	0.097
CR-DS	SGS	2023-04-10	CA15222-APR23	5.94	7.2	2.66	< 2					13	0.005	0.09
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015											
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017											
CR-DS	ALS	2023-05-26	WP2309859-007	7.9	7.46	14.2	2	32.4	<1.0	<1.0	<1.0	32.4	0.0417	0.248
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003											
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003											
CR-DS	ALS	2023-06-11	WP2311825-002	7.67	7.63	20	<2.0	32.7	<1.0	<1.0	<1.0	32.7	0.016	0.274
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002											
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002											
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002											
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002											
CR-DS	ALS	2023-07-18	WP2316178-002	7.75	7.58	19	<2.0	35.8	<1.0	<1.0	<1.0	35.8	0.0409	0.183
CR-DS	ALS	2023-07-18	WP2316178-001	7.75	7.56	19	<2.0	36	<1.0	<1.0	<1.0	36	0.0397	0.184
CR-DS	ALS	2023-08-10	WP2319111	7.57	7.6	21	2.2	36.9	<1.0	<1.0	<1.0	36.9	0.0182	0.123
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014											
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017											
CR-DS	ALS	2023-08-10	WP2319111-007											
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002											
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002											
CR-DS	ALS	2023-09-02	WP2322077-002	7.33	7.6	19.2	<2.0	35.3	<1.0	<1.0	<1.0	35.3	0.0276	0.144
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002											
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002											
CR-DS	ALS	2023-10-10	WP2326292-007	7.62	7.43	11	3.5	34.4	<1.0	<1.0	<1.0	34.4	0.0448	0.379
CR-DS	ALS	2023-11-02	WP2328687	7.56	7.58	1.7	3.6	34.5	<1.0	<1.0	<1.0	34.5	0.0256	0.233
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002											
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002											
CR-DS	ALS	2023-11-02	WP2328687-005											
CR-DS	ALS	2024-05-20	WP2412615	7.87	7.44	11.4	<2.0	28.9	<1.0	<1.0	<1.0	28.9	0.0281	0.247
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010											
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010											
CR-DS	ALS	2024-06-17	WP2415380	7.32	7.32	16.9	2.1	27.2	<1.0	<1.0	<1.0	27.2	0.0334	0.133
CR-DS	Flett	2024-06-17	TMWATR070224CH1											
CR-DS	ALS	2024-07-07	WP2416896	6.82	7.46	20.6	<2.0	29.2	<1.0	<1.0	<1.0	29.2	0.0273	0.119
CR-DS	Flett	2024-07-07	TMWATR072524CH2											
CR-DS	Flett	2024-07-07	MTWATR072424JS2											
CR-DS	ALS	2024-08-06	WP2419247	7.45	7.54	23.8	<2.0	33.9	<1.0	<1.0	<1.0	33.9	0.0294	0.152
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007											
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005												
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004												
CR-DS	SGS	2022-06-05	CA15234-JUN22	0.023			< 0.1	< 0.0009	< 0.0009	0.0041	0.0055	0.00591	0.00735	< 0.000007	< 0.000007
CR-DS	SGS	2022-07-28		0.034			< 0.1	< 0.0009	< 0.0009	0.0044	0.0053	0.00715	0.0106	< 0.000007	< 0.000007
CR-DS	SGS	2022-08-23	CA15433-AUG22	0.014			< 0.1	< 0.0009	< 0.0009	0.0063	0.0063	0.00845	0.00876	< 0.000007	< 0.000007
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010												
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009												
CR-DS	SGS	2022-09-13	CA15263-SEP22	0.007			< 0.1	< 0.0009	< 0.0009	0.0073	0.0075	0.00691	0.00774	< 0.000007	0.000008
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002												
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002												
CR-DS	SGS	2022-10-18	CA15422-OCT22	0.009			< 0.1	< 0.0009	< 0.0009	0.0081	0.0092	0.00775	0.00932	0.000041	0.000054
CR-DS	SGS	2022-11-08	CA15232-NOV22	0.015			< 0.1	< 0.0009	< 0.0009	0.0036	0.0073	0.00503	0.0119	< 0.000007	0.00002
CR-DS	SGS	2023-01-18	CA13675-JAN23	0.017			< 0.1	< 0.0009	< 0.0009	0.0068	0.0082	0.00806	0.00885	0.000035	0.000061
CR-DS	SGS	2023-02-13	CA15347-FEB23	0.013			< 0.1	< 0.0009	< 0.0009	0.0098	0.0115	0.0121	0.0125	0.000007	0.000008
CR-DS	SGS	2023-02-13	CA15347-FEB23	0.01			0.1	< 0.0009	< 0.0009	0.0117	0.0121	0.0131	0.0131	0.000011	0.000008
CR-DS	SGS	2023-03-21	CA15408-MAR23	0.012			< 0.1	< 0.0009	< 0.0009	0.0062	0.0076	0.00763	0.00847	< 0.000007	0.000009
CR-DS	SGS	2023-04-10	CA15222-APR23	0.006			0.6	< 0.0009	< 0.0009	0.0069	0.0079	0.00449	0.00705	< 0.000007	< 0.000007
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015												
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017												
CR-DS	ALS	2023-05-26	WP2309859-007		0.018	<0.0010		0.00016	0.0002	0.0035	0.00402	0.00712	0.00952	<0.000020	0.00002
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003												
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003												
CR-DS	ALS	2023-06-11	WP2311825-002		0.016	<0.0010		0.00025	0.00025	0.00507	0.00582	0.00741	0.00934	<0.000020	<0.000020
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002												
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002												
CR-DS	ALS	2023-07-18	WP2316178-002		0.011	<0.0010		0.00027	0.00029	0.0107	0.0115	0.00896	0.0101	<0.000020	<0.000020
CR-DS	ALS	2023-07-18	WP2316178-001		0.018	<0.0010		0.00029	0.00029	0.0113	0.0118	0.00892	0.00999	<0.000020	<0.000020
CR-DS	ALS	2023-08-10	WP2319111			<0.0010	0.016	0.00028	0.00028	0.0104	0.0107	0.00855	0.00864	<0.000020	<0.000020
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014												
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017												
CR-DS	ALS	2023-08-10	WP2319111-007		0.016										
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002												
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002												
CR-DS	ALS	2023-09-02	WP2322077-002		0.059	<0.0010		0.00029	0.00033	0.0137	0.014	0.00815	0.009	<0.000020	<0.000020
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002												
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002												
CR-DS	ALS	2023-10-10	WP2326292-007		0.0238	<0.0010		0.0003	0.00032	0.0081	0.00929	0.00828	0.0108	<0.000020	<0.000020
CR-DS	ALS	2023-11-02	WP2328687			<0.0010	0.0129	0.00023	0.00018	0.00488	0.0046	0.00922	0.0102	<0.000020	<0.000020
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002												
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002												
CR-DS	ALS	2023-11-02	WP2328687-005		0.0129										
CR-DS	ALS	2024-05-20	WP2412615			<0.0010	0.0108	0.00025	0.00027	0.00448	0.00579	0.00638	0.00874	<0.000020	<0.000020
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010												
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010												
CR-DS	ALS	2024-06-17	WP2415380			<0.0010	0.0112	0.00025	0.00025	0.00437	0.0052	0.00692	0.00812	<0.000020	<0.000020
CR-DS	Flett	2024-06-17	TMWATR070224CH1												
CR-DS	ALS	2024-07-07	WP2416896			<0.0010	0.0062	0.00025	0.00028	0.00487	0.00548	0.00739	0.00778	<0.000020	<0.000020
CR-DS	Flett	2024-07-07	TMWATR072524CH2												
CR-DS	Flett	2024-07-07	MTWATR072424JS2												
CR-DS	ALS	2024-08-06	WP2419247			<0.0010	0.0075	0.00027	0.00028	0.0102	0.011	0.00838	0.00919	<0.000020	<0.000020
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007												
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005													
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004													
CR-DS	SGS	2022-06-05	CA15234-JUN22	< 0.00001	< 0.00001	0.005	0.005	< 0.000003	< 0.000003	8.84	9.31	11			32	4
CR-DS	SGS	2022-07-28		< 0.00001	< 0.00001	0.007	0.008	0.000008	0.000013	9.04	9.31	14			33	3
CR-DS	SGS	2022-08-23	CA15433-AUG22	< 0.00001	< 0.00001	0.007	0.008	< 0.000004	< 0.000003	9.26	9.68	11			32	2
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010													
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009													
CR-DS	SGS	2022-09-13	CA15263-SEP22	< 0.00001	< 0.00001	0.005	0.006	< 0.000003	0.000004	9.34	9.31	12			25	2
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002													
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002													
CR-DS	SGS	2022-10-18	CA15422-OCT22	< 0.00001	< 0.00001	0.006	0.007	0.00044	0.000377	9.54	10.5	12			28	2
CR-DS	SGS	2022-11-08	CA15232-NOV22	< 0.00001	< 0.00001	0.003	0.008	< 0.000004	0.000012	6.14	10.8	12			32	2
CR-DS	SGS	2023-01-18	CA13675-JAN23	< 0.00001	< 0.00001	0.007	0.008	0.00007	0.000202	11.2	11.8	11			27	4
CR-DS	SGS	2023-02-13	CA15347-FEB23	< 0.00001	< 0.00001	0.009	0.01	0.000013	0.000008	15.3	16.3	16			48	5
CR-DS	SGS	2023-02-13	CA15347-FEB23	< 0.00001	< 0.00001	0.01	0.01	0.000015	0.000009	17.6	17.4	18			49	6
CR-DS	SGS	2023-03-21	CA15408-MAR23	< 0.00001	< 0.00001	0.006	0.007	< 0.000004	< 0.000003	11	11.7	12			25	3
CR-DS	SGS	2023-04-10	CA15222-APR23	< 0.00001	< 0.00001	0.004	0.007	0.000012	0.000009	3.71	7.61	8			20	3
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015													
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017													
CR-DS	ALS	2023-05-26	WP2309859-007	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000006	10.2	10.7	15.2	<0.000010	0.000023		1.54
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003													
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003													
CR-DS	ALS	2023-06-11	WP2311825-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10	10.5	10.8	<0.000010	0.000032		2.27
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002													
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002													
CR-DS	ALS	2023-07-18	WP2316178-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.9	12.2	12.9	<0.000010	0.000016		2.33
CR-DS	ALS	2023-07-18	WP2316178-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12	12.4	12.8	<0.000010	0.000017		2.39
CR-DS	ALS	2023-08-10	WP2319111	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.1	11.4	13.7	<0.000010	0.000016		2.36
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014													
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017													
CR-DS	ALS	2023-08-10	WP2319111-007													
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002													
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002													
CR-DS	ALS	2023-09-02	WP2322077-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.5	12.6	11.5	<0.000010	0.000019		2.46
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002													
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002													
CR-DS	ALS	2023-10-10	WP2326292-007	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.8	11.6	16	<0.000010	0.000037		2.39
CR-DS	ALS	2023-11-02	WP2328687	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000061	11.1	11.4	14.6	<0.000010	0.000026		1.69
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002													
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002													
CR-DS	ALS	2023-11-02	WP2328687-005													
CR-DS	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000089	10.4	10.2	14	<0.000010	0.000032		2.45
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010													
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010													
CR-DS	ALS	2024-06-17	WP2415380	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	9.99	9.95	14.2	<0.000010	0.000017		2.61
CR-DS	Flett	2024-06-17	TMWATR070224CH1													
CR-DS	ALS	2024-07-07	WP2416896	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.99	10	17.1	<0.000010	0.000017		2.64
CR-DS	Flett	2024-07-07	TMWATR072524CH2													
CR-DS	Flett	2024-07-07	MTWATR072424JS2													
CR-DS	ALS	2024-08-06	WP2419247	<0.000050	<0.000050	<0.010	0.011	<0.0000050	<0.0000050	12	12.6	12.9	<0.000010	0.000017		2.84
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007													
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007													

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Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005													
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004													
CR-DS	SGS	2022-06-05	CA15234-JUN22	< 0.00008	0.00049	0.000053	0.000117	75	0.0012	0.0014			< 0.01			< 0.06
CR-DS	SGS	2022-07-28		0.0002	0.00122	0.000069	0.000262	73	0.0016	0.0018			< 0.01			< 0.06
CR-DS	SGS	2022-08-23	CA15433-AUG22	0.00044	0.00049	0.000109	0.00014	69	0.0012	0.0013			< 0.01			0.21
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010													
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009													
CR-DS	SGS	2022-09-13	CA15263-SEP22	0.00011	0.00051	0.000043	0.000106	69	0.0011	0.0016			< 0.01			< 0.06
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002													
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002													
CR-DS	SGS	2022-10-18	CA15422-OCT22	0.00165	0.00208	0.000196	0.000256	72	0.0018	0.0017	< 0.005		< 0.01			< 0.06
CR-DS	SGS	2022-11-08	CA15232-NOV22	0.0001	0.00103	0.00004	0.000271	78	0.0009	0.0019			< 0.01			0.11
CR-DS	SGS	2023-01-18	CA13675-JAN23	0.00026	0.00045	0.000071	0.000096	74	0.0014	0.0015	< 0.005		< 0.01	< 0.01		< 0.06
CR-DS	SGS	2023-02-13	CA15347-FEB23	0.00034	0.00072	0.000049	0.000112	101	0.0044	0.0051	< 0.005		< 0.01			< 0.06
CR-DS	SGS	2023-02-13	CA15347-FEB23	0.00041	0.00067	0.000068	0.000111	124	0.0059	0.0059	< 0.005		< 0.01			0.09
CR-DS	SGS	2023-03-21	CA15408-MAR23	< 0.00008	0.00027	0.000048	0.000094	85	0.0013	0.0015	< 0.005		< 0.01			< 0.06
CR-DS	SGS	2023-04-10	CA15222-APR23	0.00258	0.00228	0.000042	0.000087	48	0.0716	0.0531	< 0.005		< 0.01			< 0.06
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015													
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017													
CR-DS	ALS	2023-05-26	WP2309859-007	<0.00010	0.00066	<0.00010	0.00016	81.3	0.00104	0.00132	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003													
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003													
CR-DS	ALS	2023-06-11	WP2311825-002	0.00014	0.0006	<0.00010	0.00019	76.6	0.00119	0.00155	<0.0010	<0.0010		0.0011		
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002													
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002													
CR-DS	ALS	2023-07-18	WP2316178-002	0.00014	0.00036	<0.00010	0.0001	92.4	0.00122	0.00156	<0.0010	0.0018		0.0018		
CR-DS	ALS	2023-07-18	WP2316178-001	0.00014	0.00036	<0.00010	0.00011	92.4	0.0014	0.00158	0.0015	0.0024		0.0024		
CR-DS	ALS	2023-08-10	WP2319111	0.00011	0.00033	<0.00010	0.00012	93.9	0.0012	0.0014	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014													
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017													
CR-DS	ALS	2023-08-10	WP2319111-007													
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002													
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002													
CR-DS	ALS	2023-09-02	WP2322077-002	<0.00010	0.00034	<0.00010	0.00012	92.6	0.00124	0.00134	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002													
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002													
CR-DS	ALS	2023-10-10	WP2326292-007	0.00021	0.0008	<0.00010	0.00023	89.8	0.00139	0.00181	<0.0010	<0.0010		<0.0010		
CR-DS	ALS	2023-11-02	WP2328687	0.00012	0.00046	<0.00010	0.00017	82.9	0.0017	0.00124	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002													
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002													
CR-DS	ALS	2023-11-02	WP2328687-005													
CR-DS	ALS	2024-05-20	WP2412615	0.00024	0.00057	<0.00010	0.00016	81	0.0016	0.00153	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010													
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010													
CR-DS	ALS	2024-06-17	WP2415380	0.00018	0.00036	<0.00010	0.00014	79.4	0.00116	0.00135	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2024-06-17	TMWATR070224CH1													
CR-DS	ALS	2024-07-07	WP2416896	0.00016	0.00034	<0.00010	0.00013	79.9	0.00112	0.00128	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2024-07-07	TMWATR072524CH2													
CR-DS	Flett	2024-07-07	MTWATR072424JS2													
CR-DS	ALS	2024-08-06	WP2419247	0.00016	0.00034	<0.00010	0.00011	97.5	0.00112	0.00145	0.0011	<0.0010		<0.0010		
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007													
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005												
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004												
CR-DS	SGS	2022-06-05	CA15234-JUN22	31.1	32.9	0.048	0.177	< 0.00009	0.00014	0.0011	0.0013	2.19	2.35	0.0003	0.00917
CR-DS	SGS	2022-07-28		31.6	33.1	0.127	0.514	< 0.00009	0.00023			2.2	2.4	0.00096	0.0199
CR-DS	SGS	2022-08-23	CA15433-AUG22	32.4	33.9	0.144	0.236	< 0.00009	0.00012			2.26	2.37	0.0102	0.0117
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010												
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009												
CR-DS	SGS	2022-09-13	CA15263-SEP22	32.4	32.3	0.038	0.201	< 0.00009	< 0.00009			2.2	2.21	0.00043	0.0102
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002												
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002												
CR-DS	SGS	2022-10-18	CA15422-OCT22	34.2	37.8	0.055	0.227	0.00012	0.00012			2.52	2.83	0.0008	0.00993
CR-DS	SGS	2022-11-08	CA15232-NOV22	21.8	38.8	0.05	0.513	< 0.00009	0.00029			1.57	2.89	0.00189	0.0155
CR-DS	SGS	2023-01-18	CA13675-JAN23	39.3	41.2	0.064	0.157	< 0.00009	0.00029			2.76	2.87	0.00268	0.00658
CR-DS	SGS	2023-02-13	CA15347-FEB23	53.8	57.7	0.069	0.199	< 0.00009	0.00015			3.77	4.15	0.0021	0.00987
CR-DS	SGS	2023-02-13	CA15347-FEB23	62.1	61.6	0.072	0.189	< 0.00009	< 0.00009			4.41	4.41	0.00103	0.0099
CR-DS	SGS	2023-03-21	CA15408-MAR23	38.4	41.1	0.06	0.183	< 0.00009	< 0.00009			2.64	2.87	0.00224	0.00844
CR-DS	SGS	2023-04-10	CA15222-APR23	14.9	28.2	0.023	0.128	< 0.00009	0.00012			1.38	2.24	0.00464	0.00869
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015												
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017												
CR-DS	ALS	2023-05-26	WP2309859-007	36.7	39.8	0.13	0.392	<0.000050	0.000127	0.0015	0.0019	2.72	3.18	0.00591	0.0161
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003												
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003												
CR-DS	ALS	2023-06-11	WP2311825-002	36.4	37.2	0.043	0.326	<0.000050	0.000128	0.0013	0.0019	2.78	2.68	0.00096	0.0133
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002												
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002												
CR-DS	ALS	2023-07-18	WP2316178-002	41.1	44.8	0.051	0.171	<0.000050	0.000087	0.0017	0.0026	2.77	3.49	0.00106	0.0122
CR-DS	ALS	2023-07-18	WP2316178-001	43.2	45	0.046	0.179	<0.000050	0.000089	0.0016	0.0023	3.22	3.4	0.00104	0.012
CR-DS	ALS	2023-08-10	WP2319111	41.9	41.1	0.029	0.146	<0.000050	0.00007	0.0013	0.0014	2.84	3.08	0.00116	0.017
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014												
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017												
CR-DS	ALS	2023-08-10	WP2319111-007												
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002												
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002												
CR-DS	ALS	2023-09-02	WP2322077-002	43	43.5	0.03	0.155	<0.000050	0.000091	0.0017	0.0026	2.86	2.93	0.00176	0.0144
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002												
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002												
CR-DS	ALS	2023-10-10	WP2326292-007	38.5	41.8	0.091	0.442	<0.000050	0.000187	<0.0010	0.0016	2.8	3.13	0.00437	0.016
CR-DS	ALS	2023-11-02	WP2328687	40.8	41.7	0.101	0.334	0.000066	0.00012	0.0012	0.0016	3.18	3.21	0.00791	0.0145
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002												
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002												
CR-DS	ALS	2023-11-02	WP2328687-005												
CR-DS	ALS	2024-05-20	WP2412615	37.5	37.1	0.065	0.317	<0.000050	0.00012	0.0018	0.002	2.8	2.82	0.0023	0.0123
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010												
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010												
CR-DS	ALS	2024-06-17	WP2415380	35.5	36.1	0.075	0.23	<0.000050	0.000105	0.0017	0.0016	2.57	2.73	0.00358	0.0121
CR-DS	Flett	2024-06-17	TMWATR070224CH1												
CR-DS	ALS	2024-07-07	WP2416896	35.1	35.7	0.078	0.22	<0.000050	0.000089	0.0018	<0.0010	2.47	2.6	0.00286	0.0121
CR-DS	Flett	2024-07-07	TMWATR072524CH2												
CR-DS	Flett	2024-07-07	MTWATR072424JS2												
CR-DS	ALS	2024-08-06	WP2419247	40.9	43.8	0.062	0.185	<0.000050	0.000087	0.0015	0.0025	2.65	3.01	0.0023	0.0123
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007												
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005				1.96								
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004		0.056										
CR-DS	SGS	2022-06-05	CA15234-JUN22	< 0.00001		< 0.00001		0.00023	0.00017	0.001	0.0012	< 0.06	< 0.06	< 0.03	
CR-DS	SGS	2022-07-28				< 0.00001		0.00037	0.00019	0.0008	0.0014	< 0.06	< 0.06	< 0.03	
CR-DS	SGS	2022-08-23	CA15433-AUG22			0.00005		0.00013	0.00017	0.0011	0.0011	< 0.06	< 0.06	< 0.03	
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010				0.84								
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009		0.041										
CR-DS	SGS	2022-09-13	CA15263-SEP22			< 0.00001		0.00017	0.00023	0.001	0.0012	< 0.06	< 0.06	< 0.03	
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002				0.76								
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002		0.036										
CR-DS	SGS	2022-10-18	CA15422-OCT22	< 0.00001		< 0.00001		0.00051	0.00058	0.0016	0.0018	< 0.06	< 0.06	< 0.03	
CR-DS	SGS	2022-11-08	CA15232-NOV22	< 0.00001		< 0.00001		0.00014	0.00024	0.0009	0.0019	< 0.06	< 0.06	< 0.03	
CR-DS	SGS	2023-01-18	CA13675-JAN23	< 0.00001		< 0.00001		0.00025	0.00026	0.0011	0.0012	0.07	0.07	< 0.03	
CR-DS	SGS	2023-02-13	CA15347-FEB23	< 0.00001		< 0.00001		0.00032	0.00035	0.0015	0.0018	0.16	0.16	< 0.03	
CR-DS	SGS	2023-02-13	CA15347-FEB23	< 0.00001		< 0.00001		0.00033	0.00036	0.0017	0.0017	0.2	0.2	< 0.03	
CR-DS	SGS	2023-03-21	CA15408-MAR23	< 0.00001		< 0.00001		0.00023	0.00025	0.0011	0.0017	0.07	0.07	< 0.03	
CR-DS	SGS	2023-04-10	CA15222-APR23	< 0.00002		< 0.00002		0.00013	0.00018	0.0006	0.001	0.22	0.22	< 0.03	
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015				1.9								
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017		0.068										
CR-DS	ALS	2023-05-26	WP2309859-007	<0.0000050		<0.0000050		0.000196	0.000277	0.00081	0.00127	<0.0050	<0.0051	<0.0010	
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003		0.047										
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003				1.26								
CR-DS	ALS	2023-06-11	WP2311825-002	<0.0000050		<0.0000050		0.000217	0.0002	0.00106	0.00144	<0.0050	<0.0051	<0.0010	
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002				0.69								
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002		0.061										
CR-DS	ALS	2023-07-18	WP2316178-002	<0.0000050		<0.0000050		0.000251	0.00028	0.00104	0.00139	<0.0050	<0.0051	<0.0010	
CR-DS	ALS	2023-07-18	WP2316178-001	<0.0000050		<0.0000050		0.00029	0.000314	0.00116	0.00134	<0.0050	<0.0051	<0.0010	
CR-DS	ALS	2023-08-10	WP2319111	<0.0000050		<0.0000050		0.000263	0.000273	0.00096	0.00119	<0.0050	<0.0051	<0.0010	
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014				0.69								
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017		0.054										
CR-DS	ALS	2023-08-10	WP2319111-007												
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002				0.75								
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002		0.066										
CR-DS	ALS	2023-09-02	WP2322077-002	<0.0000050		<0.0000050		0.000255	0.000307	0.00108	0.00125	0.0078	0.0078	<0.0010	
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002				1.81								
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002		0.062										
CR-DS	ALS	2023-10-10	WP2326292-007	<0.0000050		<0.0000050		0.000181	0.000241	0.00129	0.00187	0.0864	0.0864	<0.0010	
CR-DS	ALS	2023-11-02	WP2328687	<0.0000050		<0.0000050		0.000254	0.000227	0.00095	0.00111	0.0093	0.0093	<0.0010	
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002				1.13								
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002		0.051										
CR-DS	ALS	2023-11-02	WP2328687-005												
CR-DS	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000201	0.000192	0.0011	0.00142	0.0084	0.0084	<0.0010	
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010				1.88								
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010		0.058										
CR-DS	ALS	2024-06-17	WP2415380	<0.0000050		<0.0000050		0.000185	0.000138	0.00104	0.00132	0.0505	0.0505	<0.0010	<0.030
CR-DS	Flett	2024-06-17	TMWATR070224CH1				1.89								
CR-DS	ALS	2024-07-07	WP2416896	<0.0000050		<0.0000050		0.000135	0.000157	0.00106	0.00128	<0.0050	<0.0051	<0.0010	
CR-DS	Flett	2024-07-07	TMWATR072524CH2				1.44								
CR-DS	Flett	2024-07-07	MTWATR072424JS2		0.055										
CR-DS	ALS	2024-08-06	WP2419247	<0.0000050		<0.0000050		0.00022	0.000234	0.00098	0.00131	<0.0050	<0.0051	<0.0010	
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007				0.82								
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007		0.068										

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Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005												
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004												
CR-DS	SGS	2022-06-05	CA15234-JUN22	< 0.003			0.018	0.949	1.04				0.00007	0.00011	1.37
CR-DS	SGS	2022-07-28		0.038			0.05	0.883	0.993				0.00011	0.00012	1.52
CR-DS	SGS	2022-08-23	CA15433-AUG22	< 0.003			0.02	0.92	0.99				0.00009	0.00011	1.58
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010												
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009												
CR-DS	SGS	2022-09-13	CA15263-SEP22	< 0.003			0.024	0.927	0.957				0.00015	0.00011	1.28
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002												
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002												
CR-DS	SGS	2022-10-18	CA15422-OCT22	0.109			0.111	0.903	1.03				0.00561	0.00576	1.11
CR-DS	SGS	2022-11-08	CA15232-NOV22	0.004			0.038	0.544	1.06	<0.005			< 0.00004	0.00006	0.72
CR-DS	SGS	2023-01-18	CA13675-JAN23	0.032			0.03	1.06	1.13				0.00114	0.00325	1.64
CR-DS	SGS	2023-02-13	CA15347-FEB23	0.021			0.034	1.6	1.72				0.00022	0.00019	1.98
CR-DS	SGS	2023-02-13	CA15347-FEB23	0.022			0.035	1.88	1.87				0.00032	0.00035	2.23
CR-DS	SGS	2023-03-21	CA15408-MAR23	0.017			0.022	1.06	1.13				0.00013	0.00008	1.49
CR-DS	SGS	2023-04-10	CA15222-APR23	0.014			0.034	1	1.13				0.00009	0.00005	0.45
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015												
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017												
CR-DS	ALS	2023-05-26	WP2309859-007	<0.030		0.0206	<0.030	0.919	1.1		0.00145	0.0018	0.000104	0.000131	1.33
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003												
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003												
CR-DS	ALS	2023-06-11	WP2311825-002	<0.030		0.0221	<0.030	0.958	1.01		0.00163	0.0019	0.000112	0.000106	1.24
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002												
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002												
CR-DS	ALS	2023-07-18	WP2316178-002	<0.030		0.0315	0.038	0.964	1.12		0.0019	0.0021	0.000093	0.000091	1.5
CR-DS	ALS	2023-07-18	WP2316178-001	<0.030		0.0365	0.04	1.03	1.11		0.00189	0.00204	0.000116	0.000102	1.69
CR-DS	ALS	2023-08-10	WP2319111	<0.030	0.031	0.0308	<0.050	0.975	1.01		0.00174	0.00193	0.000094	0.000094	1.7
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014												
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017												
CR-DS	ALS	2023-08-10	WP2319111-007				0.031								
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002												
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002												
CR-DS	ALS	2023-09-02	WP2322077-002	<0.030		0.0113	<0.030	1.06	1.02		0.00183	0.00204	0.000072	0.000132	2.1
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002												
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002												
CR-DS	ALS	2023-10-10	WP2326292-007	<0.030		0.013	0.038	1.08	1.23		0.00164	0.00236	0.000115	0.000131	2.48
CR-DS	ALS	2023-11-02	WP2328687	<0.030	<0.030	0.0264	<0.050	1.08	1.13		0.00153	0.00197	0.000092	0.000095	2.09
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002												
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002												
CR-DS	ALS	2023-11-02	WP2328687-005				<0.030								
CR-DS	ALS	2024-05-20	WP2412615	<0.030	<0.030	0.0081	<0.050	0.988	1.01		0.00149	0.00188	0.000067	0.000126	1.75
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010												
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010												
CR-DS	ALS	2024-06-17	WP2415380	<0.050	<0.030	0.0265	<0.050	0.922	0.961		0.00154	0.0018	0.000056	0.000116	1.61
CR-DS	Flett	2024-06-17	TMWATR070224CH1												
CR-DS	ALS	2024-07-07	WP2416896	<0.030	<0.030	0.0237	<0.050	0.924	0.917		0.00158	0.00185	0.000168	0.000102	1.6
CR-DS	Flett	2024-07-07	TMWATR072524CH2												
CR-DS	Flett	2024-07-07	MTWATR072424JS2												
CR-DS	ALS	2024-08-06	WP2419247	<0.030	0.033	0.0309	<0.050	0.93	1.03		0.0018	0.00201	0.000101	<0.000050	1.54
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007												
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005													
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004													
CR-DS	SGS	2022-06-05	CA15234-JUN22	1.62	< 0.00005	< 0.00005	2.83	3.01	43	5	0.0248	0.0261		2	7	
CR-DS	SGS	2022-07-28		2.61	< 0.00005	< 0.00005	2.24	2.34	66	9	0.026	0.0276	4	3	< 2	
CR-DS	SGS	2022-08-23	CA15433-AUG22	1.81	< 0.00005	< 0.00005	2	2.21	57	7	0.0267	0.0283	2	2	3	
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010													
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009													
CR-DS	SGS	2022-09-13	CA15263-SEP22	1.6	< 0.00005	< 0.00005	2.2	2.47	60	9	0.0277	0.0275	2	2	5	
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002													
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002													
CR-DS	SGS	2022-10-18	CA15422-OCT22	1.49	0.00008	0.00008	1.77	2.04	34	5	0.028	0.0307	3	3	5	
CR-DS	SGS	2022-11-08	CA15232-NOV22	2.04	< 0.00005	< 0.00005	1.26	2.33	69	16	0.0177	0.0313	< 1	2	< 2	
CR-DS	SGS	2023-01-18	CA13675-JAN23	1.81	< 0.00005	< 0.00005	2.24	2.4	69	3	0.0285	0.03	2	2	6	
CR-DS	SGS	2023-02-13	CA15347-FEB23	2.5	< 0.00005	< 0.00005	3.4	4.03	< 30	< 2	0.0411	0.0439	3	3	2	
CR-DS	SGS	2023-02-13	CA15347-FEB23	2.52	< 0.00005	< 0.00005	3.8	3.95	63	17	0.0471	0.0464	3	3	3	
CR-DS	SGS	2023-03-21	CA15408-MAR23	1.77	< 0.00005	< 0.00005	2.32	2.48	54	3	0.0292	0.0309	2	2	7	
CR-DS	SGS	2023-04-10	CA15222-APR23	1.23	< 0.00005	< 0.00005	1.76	2.35	89	2	0.0126	0.0266	1	2	5	
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015													
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017													
CR-DS	ALS	2023-05-26	WP2309859-007	1.99	<0.000010	<0.000010	1.95	2.1	61	5.4	0.0246	0.0279	1.13	0.97	2.88	<0.00020
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003													
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003													
CR-DS	ALS	2023-06-11	WP2311825-002	1.7	<0.000010	<0.000010	2.31	2.39	62.5	5.8	0.0292	0.0267	1.76	1.68	4.15	<0.00020
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002													
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002													
CR-DS	ALS	2023-07-18	WP2316178-002	2.16	<0.000010	<0.000010	2.16	2.57	72.3	3.9	0.0299	0.03	1.61	1.79	4.49	<0.00020
CR-DS	ALS	2023-07-18	WP2316178-001	2.09	<0.000010	<0.000010	2.39	2.65	77.6	3.8	0.0313	0.0311	1.74	1.92	4.48	<0.00020
CR-DS	ALS	2023-08-10	WP2319111	1.91	<0.000010	<0.000010	2.17	2.34	78.9	4.7	0.0314	0.0312	1.58	1.41	4.46	<0.00020
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014													
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017													
CR-DS	ALS	2023-08-10	WP2319111-007													
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002													
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002													
CR-DS	ALS	2023-09-02	WP2322077-002	2.24	<0.000010	<0.000010	2.22	2.35	70	5.6	0.0288	0.0354	1.93	1.71	4.29	<0.00020
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002													
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002													
CR-DS	ALS	2023-10-10	WP2326292-007	3.29	<0.000010	<0.000010	2.43	2.66	55.6	8.4	0.0289	0.0308	1.67	1.79	4.11	<0.00020
CR-DS	ALS	2023-11-02	WP2328687	2.65	<0.000010	<0.000010	2.05	2.04	35.8	7.1	0.028	0.0265	1.08	0.99	3.31	<0.00020
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002													
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002													
CR-DS	ALS	2023-11-02	WP2328687-005													
CR-DS	ALS	2024-05-20	WP2412615	2.26	<0.000010	<0.000010	2.38	2.35	72.6	4.2	0.0283	0.0275	1.86	1.85	4.85	<0.00020
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010													
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010													
CR-DS	ALS	2024-06-17	WP2415380	1.86	<0.000010	<0.000010	2.47	2.48	67.6	8.5	0.0277	0.0277	2.09	2.2	5.36	<0.00020
CR-DS	Flett	2024-06-17	TMWATR070224CH1													
CR-DS	ALS	2024-07-07	WP2416896	1.83	<0.000010	<0.000010	2.44	2.54	56.4	5.9	0.0281	0.0284	2.3	2.17	5.94	<0.00020
CR-DS	Flett	2024-07-07	TMWATR072524CH2													
CR-DS	Flett	2024-07-07	MTWATR072424JS2													
CR-DS	ALS	2024-08-06	WP2419247	2	<0.000010	<0.000010	2.35	2.73	75.8	3.2	0.0307	0.0328	1.82	2.38	6.1	<0.00020
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007													
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005													
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004													
CR-DS	SGS	2022-06-05	CA15234-JUN22		< 0.000005	< 0.000005			< 0.00006	< 0.00006			12	< 0.00002	< 0.00002	0.000057
CR-DS	SGS	2022-07-28			< 0.000005	0.000006			< 0.00006	0.00006	0.00233	0.02	14	< 0.00002	0.00003	0.000082
CR-DS	SGS	2022-08-23	CA15433-AUG22		0.000006	0.000006			< 0.00006	< 0.00006	0.00445	0.00708	11	< 0.00002	0.00003	0.000081
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010													
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009													
CR-DS	SGS	2022-09-13	CA15263-SEP22		< 0.000005	< 0.000005			< 0.00006	0.0001	0.00046	0.00701	12	0.00002	0.00067	0.000075
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002													
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002													
CR-DS	SGS	2022-10-18	CA15422-OCT22		0.000005	0.000006			0.00008	< 0.00006	0.00828	0.0146	12	0.00004	0.00004	0.000245
CR-DS	SGS	2022-11-08	CA15232-NOV22		< 0.000005	0.000005			< 0.0001	< 0.0001	0.00061	0.0233	13	< 0.00002	< 0.00002	0.000086
CR-DS	SGS	2023-01-18	CA13675-JAN23		< 0.000005	0.000006			0.00007	0.00016	0.00156	0.00441	11	0.00003	0.00005	0.000124
CR-DS	SGS	2023-02-13	CA15347-FEB23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00063	0.0043	16	0.00006	0.00007	0.000177
CR-DS	SGS	2023-02-13	CA15347-FEB23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00053	0.00352	18	0.00006	0.00008	0.000182
CR-DS	SGS	2023-03-21	CA15408-MAR23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00044	0.00509	12	0.00002	< 0.00002	0.000127
CR-DS	SGS	2023-04-10	CA15222-APR23		0.000008	< 0.000005			0.00013	< 0.00006	0.00018	0.00409	9	0.00004	0.00003	0.000049
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015													
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017													
CR-DS	ALS	2023-05-26	WP2309859-007	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00134	0.00982		<0.00010	<0.00010	0.000125
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003													
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003													
CR-DS	ALS	2023-06-11	WP2311825-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	0.00015	0.00054	0.0124		<0.00010	<0.00010	0.000113
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002													
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002													
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002													
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002													
CR-DS	ALS	2023-07-18	WP2316178-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00121	0.00643		<0.00010	<0.00010	0.000124
CR-DS	ALS	2023-07-18	WP2316178-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00109	0.00683		<0.00010	<0.00010	0.000135
CR-DS	ALS	2023-08-10	WP2319111	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00051	0.00552		<0.00010	<0.00010	0.000136
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014													
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017													
CR-DS	ALS	2023-08-10	WP2319111-007													
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002													
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002													
CR-DS	ALS	2023-09-02	WP2322077-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00078	0.00599		<0.00010	<0.00010	0.000108
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002													
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002													
CR-DS	ALS	2023-10-10	WP2326292-007	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00184	0.0175		<0.00010	<0.00010	0.000104
CR-DS	ALS	2023-11-02	WP2328687	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00072	0.0107		<0.00010	<0.00010	0.000099
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002													
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002													
CR-DS	ALS	2023-11-02	WP2328687-005													
CR-DS	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00086	0.0127		<0.00010	<0.00010	0.000068
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010													
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010													
CR-DS	ALS	2024-06-17	WP2415380	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00086	0.00683		<0.00010	<0.00010	0.000073
CR-DS	Flett	2024-06-17	TMWATR070224CH1													
CR-DS	ALS	2024-07-07	WP2416896	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00059	0.00546		<0.00010	<0.00010	0.000063
CR-DS	Flett	2024-07-07	TMWATR072524CH2													
CR-DS	Flett	2024-07-07	MTWATR072424JS2													
CR-DS	ALS	2024-08-06	WP2419247	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.001	0.0063		<0.00010	<0.00010	0.000116
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007													
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
CR-DS	Flett	2022-06-05	TMWATR061322ZB1-005									
CR-DS	Flett	2022-06-05	MTWATR061722JS2-004									
CR-DS	SGS	2022-06-05	CA15234-JUN22	0.000066	0.00026	0.00047	0.0001	0.00012	< 0.002	0.003	< 0.002	< 0.002
CR-DS	SGS	2022-07-28		0.000101	0.00038	0.00123	0.00015	0.00026	< 0.002	< 0.002	< 0.002	< 0.002
CR-DS	SGS	2022-08-23	CA15433-AUG22	0.00008	0.00047	0.00062	0.00014	0.00015	< 0.002	< 0.002	< 0.002	< 0.002
CR-DS	Flett	2022-08-26	TMWATR091622ZB1-010									
CR-DS	Flett	2022-08-26	MTWATR092022JS1-009									
CR-DS	SGS	2022-09-13	CA15263-SEP22	0.000086	0.0003	0.00069	0.00006	0.00013	< 0.002	< 0.002	< 0.002	< 0.002
CR-DS	Flett	2022-10-18	TMWATR111022ZB3-002									
CR-DS	Flett	2022-10-18	MTWATR110722JS1-002									
CR-DS	SGS	2022-10-18	CA15422-OCT22	0.000147	0.00062	0.00087	0.00017	0.0002	< 0.002	0.002	< 0.002	< 0.002
CR-DS	SGS	2022-11-08	CA15232-NOV22	0.000193	0.00021	0.00129	0.00005	0.00024	< 0.002	< 0.002	< 0.002	< 0.002
CR-DS	SGS	2023-01-18	CA13675-JAN23	0.000144	0.00034	0.00046	0.00009	0.00011	< 0.002	< 0.002	< 0.002	< 0.002
CR-DS	SGS	2023-02-13	CA15347-FEB23	0.000174	0.00039	0.00063	0.0001	0.00014	0.007	0.011	< 0.002	< 0.002
CR-DS	SGS	2023-02-13	CA15347-FEB23	0.000187	0.00043	0.00059	0.00009	0.00014	0.014	0.014	< 0.002	< 0.002
CR-DS	SGS	2023-03-21	CA15408-MAR23	0.000136	0.00026	0.00046	0.00007	0.0001	< 0.002	0.002	< 0.002	< 0.002
CR-DS	SGS	2023-04-10	CA15222-APR23	0.000093	0.00018	0.00036	0.00006	0.0001	0.029	0.015	< 0.002	< 0.002
CR-DS	Flett	2023-05-26	TMWATR060923ZB1-015									
CR-DS	Flett	2023-05-26	MTWATR060823JS1-017									
CR-DS	ALS	2023-05-26	WP2309859-007	0.000158	<0.00050	0.00087			<0.0010	<0.0030	<0.00030	0.00033
CR-DS	Flett	2023-06-11	MTWATR062123JS3-003									
CR-DS	Flett	2023-06-11	TMWATR062023ZB1-003									
CR-DS	ALS	2023-06-11	WP2311825-002	0.000125	<0.00050	0.00098			0.001	<0.0030	<0.00030	0.00026
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002									
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002									
CR-DS	Flett	2023-07-18	TMWATR080423ZB1-002									
CR-DS	Flett	2023-07-18	MTWATR080223JS1-002									
CR-DS	ALS	2023-07-18	WP2316178-002	0.000128	0.00057	0.00103			<0.0010	<0.0030	<0.00030	0.0003
CR-DS	ALS	2023-07-18	WP2316178-001	0.000131	0.00058	0.00106			<0.0010	<0.0030	<0.00030	0.00021
CR-DS	ALS	2023-08-10	WP2319111	0.000143	<0.00050	0.00076			0.0018	<0.0030	<0.00030	<0.00020
CR-DS	Flett	2023-08-10	TMWATR082323ZB1-014									
CR-DS	Flett	2023-08-10	MTWATR082323JS1-017									
CR-DS	ALS	2023-08-10	WP2319111-007									
CR-DS	Flett	2023-09-02	TMWATR091823ZB1-002									
CR-DS	Flett	2023-09-02	MTWATR091323JS2-002									
CR-DS	ALS	2023-09-02	WP2322077-002	0.00013	<0.00050	0.00087			<0.0010	<0.0030	<0.00030	0.00024
CR-DS	Flett	2023-10-10	TMWATR110223ZB1-002									
CR-DS	Flett	2023-10-10	MTWATR111923JS1-002									
CR-DS	ALS	2023-10-10	WP2326292-007	0.000133	<0.00050	0.00119			0.0012	<0.0030	<0.00030	0.00038
CR-DS	ALS	2023-11-02	WP2328687	0.000113	<0.00050	0.00086			0.0014	<0.0030	<0.00030	0.00024
CR-DS	Flett	2023-11-02	TMWATR110923ZB2-002									
CR-DS	Flett	2023-11-02	MTWATR112023JS1-002									
CR-DS	ALS	2023-11-02	WP2328687-005									
CR-DS	ALS	2024-05-20	WP2412615	0.000086	<0.00050	0.00085			0.0019	<0.0030	<0.00030	0.00024
CR-DS	Flett	2024-05-20	TMWATR061924CH1-010									
CR-DS	Flett	2024-05-20	MTWATR061024JS1-010									
CR-DS	ALS	2024-06-17	WP2415380	0.000081	<0.00050	0.00061			<0.0010	<0.0030	<0.00030	0.00021
CR-DS	Flett	2024-06-17	TMWATR070224CH1									
CR-DS	ALS	2024-07-07	WP2416896	0.000078	<0.00050	0.00069			<0.0010	<0.0030	<0.00030	0.00021
CR-DS	Flett	2024-07-07	TMWATR072524CH2									
CR-DS	Flett	2024-07-07	MTWATR072424JS2									
CR-DS	ALS	2024-08-06	WP2419247	0.000135	0.00059	0.00086			<0.0010	<0.0030	<0.00030	0.00023
CR-DS	Flett	2024-08-06	TMWATR091124CH1-007									
CR-DS	Flett	2024-08-06	MTWATR091624JS1-007									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	7.13	7.51	14.6	3.6	32.2	<1.0	<1.0	<1.0	32.2	0.0081	0.0729
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004											
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005											
CR-DS	ALS	2024-10-06	WP2423572	6.62	7.71	8.56	2.1	35.8	<1.0	<1.0	<1.0	35.8	0.0317	0.222
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007											
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015											
CR-DS	ALS	2024-11-06	WP2425806	6.56	7.61	1.73	<2.0	38.3	<1.0	<1.0	<1.0	38.3	0.0866	0.23
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017											
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017											
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006											
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006											
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005											
CR-FDP	SGS	2022-06-05	CA15234-JUN22		7.46		< 2					26		0.12
CR-FDP	SGS	2022-07-28		6.56	7.41	19.8	< 2					26		0.185
CR-FDP	SGS	2022-08-23	CA15433-AUG22	6.35	7.27	21.9	< 2					27		0.231
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013											
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012											
CR-FDP	SGS	2022-09-13	CA15263-SEP22	7.2	7.32	17.8	< 2					26	0.012	0.137
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001											
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001											
CR-FDP	SGS	2022-10-18	CA15422-OCT22	6	7.68	5.87	< 2					30		0.207
CR-FDP	SGS	2022-11-08	CA15232-NOV22	7.04	7.53	3.2	< 2					30		0.208
CR-FDP	SGS	2023-01-18	CA13675-JAN23	5.64	7.13	0.67	< 2					34		0.064
CR-FDP	SGS	2023-02-07	CA15283-FEB23	0.24	7.44	7.04	< 2					29		0.059
CR-FDP	SGS	2023-03-29	CA15003-APR23	7.88	7.42	1.72	< 2					30	0.01	0.044
CR-FDP	SGS	2023-04-19	CA15419-APR23	7.16	7.5	2.75	< 2					29	0.021	0.127
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008											
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008											
CR-FDP	ALS	2023-05-26	WP2309859-006	7.66	7.55	13.5	2.4	27.9	<1.0	<1.0	<1.0	27.9	0.022	0.171
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002											
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002											
CR-FDP	ALS	2023-06-11	WP2311825-001	7.48	7.6	18.8	<2.0	32.2	<1.0	<1.0	<1.0	32.2	0.0206	0.235
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001											
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001											
CR-FDP	ALS	2023-07-18	WP2316178-003	7.61	7.63	19.1	<2.0	33.9	<1.0	<1.0	<1.0	33.9	0.0277	0.197
CR-FDP	ALS	2023-08-10	WP2319111	7.77	7.6	21.2	<2.0	33.6	<1.0	<1.0	<1.0	33.6	0.0195	0.142
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016											
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019											
CR-FDP	ALS	2023-08-10	WP2319111-006											
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001											
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001											
CR-FDP	ALS	2023-09-02	WP2322077-001	7.46	7.56	19	<2.0	35	<1.0	<1.0	<1.0	35	0.0246	0.16
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001											
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001											
CR-FDP	ALS	2023-10-10	WP2326292-006	7.88	7.45	10.9	2.6	32.4	<1.0	<1.0	<1.0	32.4	0.0416	0.325
CR-FDP	ALS	2023-11-02	WP2328687	7.6	7.52	3.1	2.2	30.2	<1.0	<1.0	<1.0	30.2	0.114	0.0162
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001											
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001											
CR-FDP	ALS	2023-11-02	WP2328687-004											
CR-FDP	ALS	2023-12-08	WP2332240	7.81	7.49	1	2.1	30.7	<1.0	<1.0	<1.0	30.7	0.0147	0.105
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001											
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
CR-DS	ALS	2024-09-08	WP2421728			<0.0010	0.0066	0.00028	0.00028	0.0108	0.0127	0.00703	0.00809	<0.000020	<0.000020
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004												
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005												
CR-DS	ALS	2024-10-06	WP2423572			<0.0010	0.0211	0.00027	0.00032	0.00843	0.00896	0.00772	0.00905	<0.000020	<0.000020
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007												
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015												
CR-DS	ALS	2024-11-06	WP2425806			<0.0010	0.0145	0.00024	0.00028	0.00623	0.00648	0.00955	0.0105	<0.000020	<0.000020
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017												
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017												
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006												
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006												
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005												
CR-FDP	SGS	2022-06-05	CA15234-JUN22	0.019			< 0.1	< 0.0009	< 0.0009	0.0038	0.0053	0.00571	0.00693	< 0.000007	< 0.000007
CR-FDP	SGS	2022-07-28		0.022			< 0.1	< 0.0009	< 0.0009	0.0048	0.0052	0.00734	0.00792	< 0.000007	< 0.000007
CR-FDP	SGS	2022-08-23	CA15433-AUG22	0.009			< 0.1	< 0.0009	< 0.0009	0.0064	< 0.0002	0.00738	0.00474	< 0.000007	0.000028
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013												
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012												
CR-FDP	SGS	2022-09-13	CA15263-SEP22	0.007			< 0.1	< 0.0009	< 0.0009	0.0073	0.0076	0.00739	0.00717	< 0.000007	0.000008
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001												
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001												
CR-FDP	SGS	2022-10-18	CA15422-OCT22	0.009			< 0.1	< 0.0009	< 0.0009	0.0079	0.0095	0.00738	0.00964	0.000037	0.000076
CR-FDP	SGS	2022-11-08	CA15232-NOV22	0.014			< 0.1	< 0.0009	< 0.0009	0.0044	0.0084	0.00571	0.0108	< 0.000007	0.000012
CR-FDP	SGS	2023-01-18	CA13675-JAN23	0.01			< 0.1	< 0.0009	< 0.0009	0.0077	0.0085	0.00732	0.00834	0.000035	0.000058
CR-FDP	SGS	2023-02-07	CA15283-FEB23	0.008			< 0.1	< 0.0009	< 0.0009	0.0078	0.0086	0.00699	0.00778	< 0.000007	< 0.000007
CR-FDP	SGS	2023-03-29	CA15003-APR23	0.009			< 0.1	< 0.0009	< 0.0009	0.0074	0.0083	0.00727	0.00876	0.000012	0.000011
CR-FDP	SGS	2023-04-19	CA15419-APR23	0.137			< 0.1	< 0.0009	< 0.0009	0.0059	0.0065	0.0082	0.00868	< 0.000007	< 0.000007
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008												
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008												
CR-FDP	ALS	2023-05-26	WP2309859-006		0.021	<0.0010		0.0002	0.0003	0.00422	0.00554	0.00633	0.00842	<0.000020	<0.000020
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002												
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002												
CR-FDP	ALS	2023-06-11	WP2311825-001		<0.010	<0.0010		0.00026	0.00027	0.0052	0.0057	0.00755	0.00885	<0.000020	<0.000020
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001												
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001												
CR-FDP	ALS	2023-07-18	WP2316178-003		<0.010	<0.0010		0.00027	0.0003	0.0093	0.0104	0.00795	0.00989	<0.000020	<0.000020
CR-FDP	ALS	2023-08-10	WP2319111			<0.0010	<0.010	0.00029	0.00029	0.0104	0.011	0.00782	0.0083	<0.000020	<0.000020
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016												
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019												
CR-FDP	ALS	2023-08-10	WP2319111-006		<0.010										
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001												
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001												
CR-FDP	ALS	2023-09-02	WP2322077-001		0.048	<0.0010		0.00031	0.00029	0.0143	0.0144	0.00811	0.0095	<0.000020	<0.000020
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001												
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001												
CR-FDP	ALS	2023-10-10	WP2326292-006		0.0245	<0.0010		0.0003	0.00032	0.00843	0.00951	0.00804	0.0105	<0.000020	<0.000020
CR-FDP	ALS	2023-11-02	WP2328687			<0.0010	0.018	0.00033	0.00033	0.0087	0.00744	0.0085	0.00684	<0.000020	<0.000020
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001												
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001												
CR-FDP	ALS	2023-11-02	WP2328687-004		0.018										
CR-FDP	ALS	2023-12-08	WP2332240			<0.0010	0.0144	0.00037	0.00036	0.0078	0.00868	0.00761	0.00944	<0.000020	<0.000020
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001												
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001												

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Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	11	12.6	<0.000010	0.000013		2.87
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004													
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005													
CR-DS	ALS	2024-10-06	WP2423572	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000083	11	11.5	16.2	<0.000010	0.000024		2.73
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007													
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015													
CR-DS	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.5	12.9	14.4	0.000011	0.000029		2.56
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017													
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017													
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006													
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006													
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005													
CR-FDP	SGS	2022-06-05	CA15234-JUN22	< 0.00001	< 0.00001	0.005	0.005	< 0.000003	0.000004	8.73	9.15	9			27	4
CR-FDP	SGS	2022-07-28		< 0.00001	< 0.00001	0.007	0.007	< 0.000004	0.000003	8.88	8.82	13			27	3
CR-FDP	SGS	2022-08-23	CA15433-AUG22	< 0.00001	< 0.00001	0.006	0.008	< 0.000004	0.000004	9.19	1.68	11			24	2
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013													
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012													
CR-FDP	SGS	2022-09-13	CA15263-SEP22	< 0.00001	< 0.00001	0.005	0.006	< 0.000003	< 0.000003	9.21	9.24	12			28	2
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001													
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001													
CR-FDP	SGS	2022-10-18	CA15422-OCT22	< 0.00001	< 0.00001	0.006	0.007	0.000322	0.000396	9.74	11	10			28	2
CR-FDP	SGS	2022-11-08	CA15232-NOV22	< 0.00001	< 0.00001	0.004	0.009	< 0.000004	0.000011	6.55	11.6	12			26	2
CR-FDP	SGS	2023-01-18	CA13675-JAN23	< 0.00001	< 0.00001	0.007	0.008	< 0.000004	< 0.000003	10.6	11.3	11			30	3
CR-FDP	SGS	2023-02-07	CA15283-FEB23	< 0.00001	< 0.00001	0.006	0.006	< 0.000004	0.000006	10.1	10.6	11			27	3
CR-FDP	SGS	2023-03-29	CA15003-APR23	< 0.00001	< 0.00001	0.006	0.009	0.000017	< 0.000003	10.8	11	10			14	1
CR-FDP	SGS	2023-04-19	CA15419-APR23	< 0.00001	< 0.00001	0.006	0.005	< 0.000004	0.000017	11.8	11.5	12			34	9
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008													
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008													
CR-FDP	ALS	2023-05-26	WP2309859-006	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000095	9.32	9.59	12.4	<0.000010	0.000021		2.14
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002													
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002													
CR-FDP	ALS	2023-06-11	WP2311825-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.91	9.9	10	<0.000010	0.000028		2.32
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001													
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001													
CR-FDP	ALS	2023-07-18	WP2316178-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000052	8.55	11.8	12.8	<0.000010	0.000018		2.39
CR-FDP	ALS	2023-08-10	WP2319111	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.5	11.2	13	<0.000010	0.000018		2.4
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016													
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019													
CR-FDP	ALS	2023-08-10	WP2319111-006													
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001													
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001													
CR-FDP	ALS	2023-09-02	WP2322077-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000053	12.3	11.1	11	<0.000010	0.000022		2.39
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001													
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001													
CR-FDP	ALS	2023-10-10	WP2326292-006	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000051	10.5	11	15.2	<0.000010	0.000037		2.41
CR-FDP	ALS	2023-11-02	WP2328687	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.5	10.6	12.4	0.000014	<0.000010		2.44
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001													
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001													
CR-FDP	ALS	2023-11-02	WP2328687-004													
CR-FDP	ALS	2023-12-08	WP2332240	<0.000050	<0.000050	<0.010	0.011	<0.0000050	<0.0000050	10.2	11.2	12.6	<0.000010	0.000011		2.46
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001													
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001													

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Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	0.00016	0.0002	<0.00010	<0.00010	90.7	0.0019	0.00107	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004													
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005													
CR-DS	ALS	2024-10-06	WP2423572	0.0002	0.00048	<0.00010	0.00015	96.4	0.00116	0.00134	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007													
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015													
CR-DS	ALS	2024-11-06	WP2425806	0.00032	0.0006	0.0001	0.00018	99.1	0.00114	0.0015	<0.0010	<0.0010		<0.0010		
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017													
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017													
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006													
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006													
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005													
CR-FDP	SGS	2022-06-05	CA15234-JUN22	0.00019	0.00045	0.000053	0.000139	74	0.0011	0.0013			< 0.01			< 0.06
CR-FDP	SGS	2022-07-28		0.00012	0.00079	0.000051	0.000152	72	0.0015	0.0015			< 0.01			< 0.06
CR-FDP	SGS	2022-08-23	CA15433-AUG22	0.00034	0.00027	0.000096	0.000042	71	0.0011	0.001			< 0.01			< 0.06
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013													
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012													
CR-FDP	SGS	2022-09-13	CA15263-SEP22	0.00013	0.00057	0.00005	0.000111	68	0.0011	0.0013			< 0.01			< 0.06
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001													
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001													
CR-FDP	SGS	2022-10-18	CA15422-OCT22	0.00121	0.00196	0.000165	0.000295	74	0.0018	0.002	< 0.005		< 0.01			< 0.06
CR-FDP	SGS	2022-11-08	CA15232-NOV22	0.00009	0.00064	0.000043	0.000173	86	0.0009	0.002			< 0.01			< 0.06
CR-FDP	SGS	2023-01-18	CA13675-JAN23	0.00095	0.00047	0.00009	0.000095	68	0.0014	0.0021	< 0.005		< 0.01	< 0.01		< 0.06
CR-FDP	SGS	2023-02-07	CA15283-FEB23	0.00014	0.0001	0.000047	0.000069	71	0.0015	0.0016	< 0.005		< 0.01	< 0.01		< 0.06
CR-FDP	SGS	2023-03-29	CA15003-APR23	0.00021	0.00203	0.000065	0.000184	73	0.0015	0.003	< 0.005		< 0.01			< 0.06
CR-FDP	SGS	2023-04-19	CA15419-APR23	0.00017	0.00039	0.00005	0.00011	93	0.0021	0.0015	< 0.005		< 0.01			0.06
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008													
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008													
CR-FDP	ALS	2023-05-26	WP2309859-006	<0.00010	0.00059	<0.00010	0.00014	77.2	0.00109	0.00162	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002													
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002													
CR-FDP	ALS	2023-06-11	WP2311825-001	0.00013	0.00052	<0.00010	0.00016	77	0.00118	0.00145	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001													
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001													
CR-FDP	ALS	2023-07-18	WP2316178-003	0.00012	0.00042	<0.00010	0.00012	89.1	0.00125	0.00154	<0.0010	0.0017		0.0018		
CR-FDP	ALS	2023-08-10	WP2319111	0.00019	0.00036	<0.00010	0.00012	88.6	0.00116	0.00144	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016													
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019													
CR-FDP	ALS	2023-08-10	WP2319111-006													
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001													
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001													
CR-FDP	ALS	2023-09-02	WP2322077-001	0.00011	0.00035	<0.00010	0.00013	92.5	0.00121	0.00137	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001													
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001													
CR-FDP	ALS	2023-10-10	WP2326292-006	0.0002	0.00075	<0.00010	0.00021	86.8	0.00133	0.00177	<0.0010	<0.0010		<0.0010		
CR-FDP	ALS	2023-11-02	WP2328687	0.00026	<0.00010	0.0001	<0.00010	81.8	0.00138	0.00117	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001													
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001													
CR-FDP	ALS	2023-11-02	WP2328687-004													
CR-FDP	ALS	2023-12-08	WP2332240	0.00014	0.0006	<0.00010	<0.00010	86.6	0.00138	0.00149	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001													
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	40.2	38.6	0.037	0.108	<0.000050	0.000055	0.0021	0.0018	2.85	2.7	0.00078	0.00964
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004												
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005												
CR-DS	ALS	2024-10-06	WP2423572	39.4	40.2	0.1	0.287	<0.000050	0.000108	0.0012	0.0026	2.89	2.79	0.00382	0.0118
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007												
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015												
CR-DS	ALS	2024-11-06	WP2425806	45	47.6	0.19	0.368	0.000074	0.000134	0.0013	0.0021	3.34	3.75	0.0106	0.0161
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017												
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017												
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006												
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006												
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005												
CR-FDP	SGS	2022-06-05	CA15234-JUN22	30.7	32.3	0.039	0.2	0.00012	0.00014	0.0012	0.0013	2.16	2.29	< 0.00001	0.00946
CR-FDP	SGS	2022-07-28		31.3	31	0.057	0.213	< 0.00009	0.0001			2.21	2.17	0.00049	0.0125
CR-FDP	SGS	2022-08-23	CA15433-AUG22	32.1	7.38	0.112	0.296	< 0.00009	0.00014			2.23	0.775	0.00793	0.00875
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013												
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012												
CR-FDP	SGS	2022-09-13	CA15263-SEP22	32	32.2	0.032	0.178	< 0.00009	0.00048			2.19	2.21	0.00032	0.00957
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001												
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001												
CR-FDP	SGS	2022-10-18	CA15422-OCT22	34.7	39.7	0.049	0.259	0.00015	0.00017			2.53	2.95	0.00111	0.011
CR-FDP	SGS	2022-11-08	CA15232-NOV22	23.3	41.5	0.045	0.265	< 0.00009	0.00015			1.68	3.03	0.00186	0.0102
CR-FDP	SGS	2023-01-18	CA13675-JAN23	37	39.8	0.039	0.105	< 0.00009	0.00012			2.55	2.8	0.00129	0.00428
CR-FDP	SGS	2023-02-07	CA15283-FEB23	34.7	37	0.041	0.103	0.0001	< 0.00009			2.3	2.53	0.00216	0.00396
CR-FDP	SGS	2023-03-29	CA15003-APR23	37.5	38.3	0.216	1.66	< 0.00009	< 0.00009			2.54	2.63	0.00246	0.0138
CR-FDP	SGS	2023-04-19	CA15419-APR23	41.6	40.3	0.058	0.197	< 0.00009	0.0001			2.92	2.84	0.00275	0.0113
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008												
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008												
CR-FDP	ALS	2023-05-26	WP2309859-006	33	34.7	0.051	0.236	<0.000050	0.000097	0.0013	0.0015	2.37	2.62	0.0015	0.00964
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002												
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002												
CR-FDP	ALS	2023-06-11	WP2311825-001	36.4	35	0.045	0.275	<0.000050	0.000118	0.0013	0.0018	2.84	2.51	0.00148	0.0131
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001												
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001												
CR-FDP	ALS	2023-07-18	WP2316178-003	33.1	42.6	0.031	0.18	<0.000050	0.000091	0.001	0.0022	2.85	3.2	0.0007	0.0114
CR-FDP	ALS	2023-08-10	WP2319111	38.8	39.9	0.021	0.15	<0.000050	0.000071	0.0012	0.0014	2.45	2.9	0.00061	0.0154
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016												
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019												
CR-FDP	ALS	2023-08-10	WP2319111-006												
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001												
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001												
CR-FDP	ALS	2023-09-02	WP2322077-001	43.3	39.3	0.026	0.168	<0.000050	0.000085	0.0016	0.002	3.06	2.82	0.00131	0.0168
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001												
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001												
CR-FDP	ALS	2023-10-10	WP2326292-006	37.5	39.9	0.089	0.408	<0.000050	0.000174	<0.0010	0.0015	2.73	3.02	0.00423	0.014
CR-FDP	ALS	2023-11-02	WP2328687	36.5	37.8	0.151	0.043	0.000079	<0.000050	0.0012	0.0013	2.5	2.74	0.00684	0.00174
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001												
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001												
CR-FDP	ALS	2023-11-02	WP2328687-004												
CR-FDP	ALS	2023-12-08	WP2332240	36.1	39.7	0.043	0.148	<0.000050	<0.000050	0.0019	0.0021	2.59	2.84	0.00266	0.00778
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001												
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	<0.0000050		<0.0000050		0.00021	0.000279	0.00096	0.00109	<0.0050	<0.0051	<0.0010	<0.03
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004				0.64								
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005		0.052										
CR-DS	ALS	2024-10-06	WP2423572	<0.0000050		<0.0000050		0.000197	0.000216	0.00116	0.00138	0.0076	0.0076	<0.0010	<0.030
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007				1.18								
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015		0.062										
CR-DS	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.000236	0.000312	0.00116	0.00141	0.0107	0.0107	<0.0010	<0.030
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017		0.045										
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017				1.12								
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006		0.035										
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006				1.68								
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005		0.04										
CR-FDP	SGS	2022-06-05	CA15234-JUN22	0.00001		0.00001		0.00013	0.00017	0.001	0.0013	< 0.06	< 0.06	< 0.03	
CR-FDP	SGS	2022-07-28				< 0.00001		0.00023	0.0002	0.001	0.0011	< 0.06	< 0.06	< 0.03	
CR-FDP	SGS	2022-08-23	CA15433-AUG22			< 0.00001		0.00014	0.00006	0.001	0.0003	< 0.06	< 0.06	< 0.03	
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013				0.96								
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012		0.039										
CR-FDP	SGS	2022-09-13	CA15263-SEP22			< 0.00001		0.00019	0.00021	0.001	0.0012	< 0.06	< 0.06	< 0.03	
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001				0.81								
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001		0.033										
CR-FDP	SGS	2022-10-18	CA15422-OCT22	< 0.00001		< 0.00001		0.00045	0.00056	0.0016	0.0019	< 0.06	< 0.06	< 0.03	
CR-FDP	SGS	2022-11-08	CA15232-NOV22	< 0.00001		< 0.00001		0.00015	0.00022	0.0008	0.0017	< 0.06	< 0.06	< 0.03	
CR-FDP	SGS	2023-01-18	CA13675-JAN23	< 0.00001		< 0.00001		0.00031	0.00022	0.0012	0.0038	0.2	0.2	< 0.03	
CR-FDP	SGS	2023-02-07	CA15283-FEB23	< 0.00001		< 0.00001		0.00024	0.00024	0.0012	0.0013	0.07	0.07	< 0.03	
CR-FDP	SGS	2023-03-29	CA15003-APR23	< 0.00001		< 0.00001		0.00022	0.00045	0.0012	0.0136	0.1	0.1	< 0.03	
CR-FDP	SGS	2023-04-19	CA15419-APR23	< 0.00001		< 0.00001		0.00022	0.00021	0.0011	0.0012	0.17	0.17	< 0.03	
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008				1.21								
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008		0.04										
CR-FDP	ALS	2023-05-26	WP2309859-006	<0.0000050		<0.0000050		0.000142	0.00018	0.00091	0.00142	<0.0050	<0.0051	<0.0010	
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002		0.049										
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002				1.14								
CR-FDP	ALS	2023-06-11	WP2311825-001	<0.0000050		<0.0000050		0.000211	0.000285	0.00103	0.00136	<0.0050	<0.0051	<0.0010	
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001				0.67								
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001		0.049										
CR-FDP	ALS	2023-07-18	WP2316178-003	<0.0000050		<0.0000050		0.000205	0.000281	0.00107	0.00138	<0.0050	<0.0051	<0.0010	
CR-FDP	ALS	2023-08-10	WP2319111	<0.0000050		<0.0000050		0.00023	0.000217	0.00095	0.00121	<0.0050	<0.0051	<0.0010	
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016				0.6								
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019		0.045										
CR-FDP	ALS	2023-08-10	WP2319111-006												
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001				0.71								
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001		0.075										
CR-FDP	ALS	2023-09-02	WP2322077-001	<0.0000050		<0.0000050		0.00022	0.000231	0.0012	0.00124	0.0132	0.0132	<0.0010	
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001				1.74								
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001		0.054										
CR-FDP	ALS	2023-10-10	WP2326292-006	<0.0000050		<0.0000050		0.000208	0.000235	0.00126	0.00181	0.0927	0.0945	0.0018	
CR-FDP	ALS	2023-11-02	WP2328687	<0.0000050		<0.0000050		0.000171	0.000181	0.00143	0.00119	0.0109	0.0109	<0.0010	
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001				0.84								
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001		0.031										
CR-FDP	ALS	2023-11-02	WP2328687-004												
CR-FDP	ALS	2023-12-08	WP2332240	<0.0000050		<0.0000050		0.000222	0.000192	0.0012	0.00142	0.0385	0.0385	<0.0010	
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001				0.61								
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001		0.022										

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	<0.050	<0.030	0.0286	<0.050	1	0.963		0.0018	0.00202	0.000102	0.000084	2.06
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004												
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005												
CR-DS	ALS	2024-10-06	WP2423572		0.031	0.0281		1.08	1.02		0.00164	0.002	0.0001	0.000096	2.14
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007												
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015												
CR-DS	ALS	2024-11-06	WP2425806		0.057	0.022		1.11	1.22		0.00165	0.002	0.000145	0.000088	2.3
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017												
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017												
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006												
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006												
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005												
CR-FDP	SGS	2022-06-05	CA15234-JUN22	0.008			0.02	0.903	0.973				0.00007	0.00012	1.36
CR-FDP	SGS	2022-07-28		< 0.003			0.045	0.874	0.883				0.00005	0.00011	1.44
CR-FDP	SGS	2022-08-23	CA15433-AUG22	< 0.003			0.005	0.919	0.443				0.00009	0.00008	1.52
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013												
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012												
CR-FDP	SGS	2022-09-13	CA15263-SEP22	< 0.003			0.023	0.935	0.967				0.00011	0.0001	1.33
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001												
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001												
CR-FDP	SGS	2022-10-18	CA15422-OCT22	0.086			0.113	0.912	1.11				0.00421	0.00493	1.14
CR-FDP	SGS	2022-11-08	CA15232-NOV22	0.004			0.029	0.59	1.12	<0.005			0.00004	0.00011	0.76
CR-FDP	SGS	2023-01-18	CA13675-JAN23	0.069			0.035	1.03	1.11				0.00015	0.00023	1.52
CR-FDP	SGS	2023-02-07	CA15283-FEB23	0.025			0.032	1.02	1.09				0.00008	0.00009	1.36
CR-FDP	SGS	2023-03-29	CA15003-APR23	0.029			0.032	1.05	1.08				< 0.00004	< 0.00004	1.54
CR-FDP	SGS	2023-04-19	CA15419-APR23	0.012			0.024	1.14	1.12				0.00006	0.00008	1.84
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008												
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008												
CR-FDP	ALS	2023-05-26	WP2309859-006	<0.030		0.0202	<0.030	0.829	1.01		0.00141	0.00172	0.000076	0.000145	1.04
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002												
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002												
CR-FDP	ALS	2023-06-11	WP2311825-001	<0.030		0.0206	<0.030	0.952	0.988		0.0016	0.00187	0.000087	0.000091	1.19
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001												
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001												
CR-FDP	ALS	2023-07-18	WP2316178-003	<0.030		0.0303	<0.030	0.985	1.12		0.00178	0.00211	0.000103	0.000105	1.53
CR-FDP	ALS	2023-08-10	WP2319111	<0.030	<0.030	0.026	<0.050	0.928	1.02		0.00174	0.00192	0.000095	0.000097	1.65
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016												
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019												
CR-FDP	ALS	2023-08-10	WP2319111-006				<0.030								
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001												
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001												
CR-FDP	ALS	2023-09-02	WP2322077-001	<0.030		0.0353	<0.030	1.11	1.01		0.00189	0.00215	0.000103	0.000104	2.16
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001												
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001												
CR-FDP	ALS	2023-10-10	WP2326292-006	<0.030		0.0305	<0.030	1.07	1.13		0.00166	0.00235	0.000114	0.000109	2.49
CR-FDP	ALS	2023-11-02	WP2328687	<0.030	<0.030	0.0243	<0.050	1.02	0.977		0.00178	0.00158	0.000096	0.000109	1.97
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001												
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001												
CR-FDP	ALS	2023-11-02	WP2328687-004				<0.030								
CR-FDP	ALS	2023-12-08	WP2332240	<0.030	<0.030	0.0202	<0.050	0.96	1.03		0.00149	0.00186	0.000097	0.000129	1.7
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001												
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	2	<0.000010	<0.000010	2.59	2.45	68.6	4.1	0.0309	0.0324	2.38	1.77	5.91	<0.00020
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004													
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005													
CR-DS	ALS	2024-10-06	WP2423572	2.49	<0.000010	<0.000010	2.64	2.34	59.1	6.1	0.03	0.0318	1.94	1.92	5.63	<0.00020
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007													
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015													
CR-DS	ALS	2024-11-06	WP2425806	2.8	<0.000010	<0.000010	2.76	2.91	83.3	6	0.0321	0.0317	1.85	2.01	4.99	<0.00020
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017													
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017													
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006													
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006													
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005													
CR-FDP	SGS	2022-06-05	CA15234-JUN22	1.62	< 0.00005	< 0.00005	2.73	2.86	37	5	0.0247	0.0251		2	7	
CR-FDP	SGS	2022-07-28		1.75	< 0.00005	< 0.00005	2.32	2.26	66	4	0.0266	0.0263	3	3	< 2	
CR-FDP	SGS	2022-08-23	CA15433-AUG22	0.38	< 0.00005	< 0.00005	2.03	4.68	51	4	0.027	0.00911	2	1	5	
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013													
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012													
CR-FDP	SGS	2022-09-13	CA15263-SEP22	1.55	< 0.00005	< 0.00005	2.29	2.44	37	7	0.0283	0.0284	2	2	5	
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001													
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001													
CR-FDP	SGS	2022-10-18	CA15422-OCT22	1.58	0.00005	0.00007	1.87	2.19	37	5	0.0278	0.0321	3	3	5	
CR-FDP	SGS	2022-11-08	CA15232-NOV22	1.68	< 0.00005	< 0.00005	1.57	3.5	66	7	0.0192	0.0341	< 1	3	7	
CR-FDP	SGS	2023-01-18	CA13675-JAN23	1.66	< 0.00005	< 0.00005	2.16	2.4	51	2	0.0278	0.03	2	2	6	
CR-FDP	SGS	2023-02-07	CA15283-FEB23	1.54	< 0.00005	< 0.00005	2.33	2.51	63	< 2	0.0291	0.0302	2	2	6	
CR-FDP	SGS	2023-03-29	CA15003-APR23	1.86	< 0.00005	< 0.00005	2.38	2.49	43	< 2	0.029	0.0303	2	2	7	
CR-FDP	SGS	2023-04-19	CA15419-APR23	2	< 0.00005	< 0.00005	4.26	4.16	54	8	0.031	0.0305	1	1	5	
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008													
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008													
CR-FDP	ALS	2023-05-26	WP2309859-006	1.55	<0.000010	<0.000010	2.02	2.32	56	5.4	0.025	0.0282	1.32	1.49	3.95	<0.00020
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002													
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002													
CR-FDP	ALS	2023-06-11	WP2311825-001	1.66	<0.000010	<0.000010	2.26	2.3	46.2	5.6	0.0295	0.0266	1.51	1.48	4.22	<0.00020
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001													
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001													
CR-FDP	ALS	2023-07-18	WP2316178-003	2.04	<0.000010	<0.000010	2.24	2.57	69.3	4.3	0.025	0.0292	1.69	1.87	4.62	<0.00020
CR-FDP	ALS	2023-08-10	WP2319111	2.09	<0.000010	<0.000010	2.01	2.35	66.9	5	0.0298	0.0301	1.51	1.63	4.58	<0.00020
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016													
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019													
CR-FDP	ALS	2023-08-10	WP2319111-006													
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001													
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001													
CR-FDP	ALS	2023-09-02	WP2322077-001	2.33	<0.000010	<0.000010	2.38	2.28	57.3	5	0.0298	0.0335	1.75	1.61	4.34	<0.00020
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001													
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001													
CR-FDP	ALS	2023-10-10	WP2326292-006	3.15	<0.000010	<0.000010	2.28	2.5	63.6	8.5	0.0296	0.0308	1.96	1.73	4.22	<0.00020
CR-FDP	ALS	2023-11-02	WP2328687	1.67	<0.000010	<0.000010	2.46	2.27	66.5	4.4	0.0283	0.0284	1.7	1.79	4.77	<0.00020
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001													
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001													
CR-FDP	ALS	2023-11-02	WP2328687-004													
CR-FDP	ALS	2023-12-08	WP2332240	2.08	<0.000010	<0.000010	2.33	2.51	63.8	3.5	0.0294	0.0316	2.01	2.08	5.21	<0.00020
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001													
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00341		<0.00010	<0.00010	0.000085
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004													
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005													
CR-DS	ALS	2024-10-06	WP2423572	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00088	0.00892		<0.00010	<0.00010	0.000089
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007													
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015													
CR-DS	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00458	0.0113		<0.00010	<0.00010	0.000157
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017													
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017													
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006													
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006													
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005													
CR-FDP	SGS	2022-06-05	CA15234-JUN22		< 0.000005	< 0.000005			< 0.00006	< 0.00006			10	0.00002	< 0.00002	0.000053
CR-FDP	SGS	2022-07-28			< 0.000005	< 0.000005			< 0.00006	0.00009	0.00062	0.00765	12	< 0.00002	0.00003	0.000071
CR-FDP	SGS	2022-08-23	CA15433-AUG22		0.000005	0.000005			< 0.00006	0.00026	0.004	0.0027	10	< 0.00002	< 0.00002	0.000068
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013													
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012													
CR-FDP	SGS	2022-09-13	CA15263-SEP22		< 0.000005	< 0.000005			< 0.00006	0.00017	0.00034	0.00634	12	< 0.00002	0.00004	0.000075
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001													
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001													
CR-FDP	SGS	2022-10-18	CA15422-OCT22		< 0.000005	0.000011			< 0.00006	0.0001	0.00679	0.0155	10	0.0004	0.00004	0.000216
CR-FDP	SGS	2022-11-08	CA15232-NOV22		< 0.000005	< 0.000005			< 0.0001	< 0.0001	0.00056	0.00902	12	< 0.00002	0.00002	0.00009
CR-FDP	SGS	2023-01-18	CA13675-JAN23		< 0.000005	0.000007			0.00006	0.00007	0.0038	0.0031	11	0.00004	0.00005	0.000123
CR-FDP	SGS	2023-02-07	CA15283-FEB23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00027	0.00295	11	0.00003	0.00002	0.000096
CR-FDP	SGS	2023-03-29	CA15003-APR23		< 0.000005	< 0.000005			< 0.00006	0.00029	0.00026	0.0027	9	0.00004	0.00006	0.000104
CR-FDP	SGS	2023-04-19	CA15419-APR23		< 0.000005	< 0.000005			0.00006	< 0.00006	0.00073	0.00566	11	< 0.00002	0.00003	0.000101
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008													
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008													
CR-FDP	ALS	2023-05-26	WP2309859-006	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00056	0.00829		<0.00010	<0.00010	0.000089
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002													
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002													
CR-FDP	ALS	2023-06-11	WP2311825-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00072	0.0107		<0.00010	<0.00010	0.000114
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001													
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001													
CR-FDP	ALS	2023-07-18	WP2316178-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00078	0.00788		<0.00010	<0.00010	0.000108
CR-FDP	ALS	2023-08-10	WP2319111	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0004	0.00627		<0.00010	<0.00010	0.000128
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016													
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019													
CR-FDP	ALS	2023-08-10	WP2319111-006													
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001													
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001													
CR-FDP	ALS	2023-09-02	WP2322077-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00054	0.00662		<0.00010	<0.00010	0.00011
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001													
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001													
CR-FDP	ALS	2023-10-10	WP2326292-006	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00143	0.0152		<0.00010	<0.00010	0.000101
CR-FDP	ALS	2023-11-02	WP2328687	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00578	0.0004		<0.00010	<0.00010	0.000088
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001													
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001													
CR-FDP	ALS	2023-11-02	WP2328687-004													
CR-FDP	ALS	2023-12-08	WP2332240	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00042	0.00486		<0.00010	<0.00010	0.000084
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001													
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001													

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Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
CR-DS	ALS	2024-09-08	WP2421728	0.000097	<0.00050	0.00061			0.0014	<0.0030	<0.00030	<0.00020
CR-DS	Flett	2024-09-08	TMWATR092924CH1-004									
CR-DS	Flett	2024-09-08	MTWATR100124JS1-005									
CR-DS	ALS	2024-10-06	WP2423572	0.000115	<0.00050	0.00085			<0.0010	<0.0030	<0.00030	0.00024
CR-DS	Flett	2024-10-06	TMWATR102524ZB2-007									
CR-DS	Flett	2024-10-06	MTWATR112624JS1-015									
CR-DS	ALS	2024-11-06	WP2425806	0.000164	0.00054	0.00091			<0.0010	0.0035	<0.00030	0.00033
CR-DS	Flett	2024-11-06	MTWATR120524JS1-017									
CR-DS	Flett	2024-11-06	TMWATR112524CH1-017									
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-006									
CR-FDP	Flett	2022-06-05	TMWATR061322ZB1-006									
CR-FDP	Flett	2022-06-05	MTWATR061722JS2-005									
CR-FDP	SGS	2022-06-05	CA15234-JUN22	0.000064	0.00017	0.00047	0.00005	0.00011	< 0.002	0.005	< 0.002	< 0.002
CR-FDP	SGS	2022-07-28		0.000089	0.00026	0.00061	0.0001	0.00018	< 0.002	< 0.002	< 0.002	< 0.002
CR-FDP	SGS	2022-08-23	CA15433-AUG22	0.000087	0.00042	0.00022	0.0001	0.00099	< 0.002	0.004	< 0.002	< 0.002
CR-FDP	Flett	2022-08-26	TMWATR091622ZB1-013									
CR-FDP	Flett	2022-08-26	MTWATR092022JS1-012									
CR-FDP	SGS	2022-09-13	CA15263-SEP22	0.000083	0.00031	0.00065	0.00007	0.00012	< 0.002	< 0.002	< 0.002	< 0.002
CR-FDP	Flett	2022-10-18	TMWATR111022ZB3-001									
CR-FDP	Flett	2022-10-18	MTWATR110722JS1-001									
CR-FDP	SGS	2022-10-18	CA15422-OCT22	0.000162	0.00051	0.00096	0.00014	0.00021	0.002	0.003	< 0.002	< 0.002
CR-FDP	SGS	2022-11-08	CA15232-NOV22	0.000184	0.00024	0.00075	0.00005	0.00017	< 0.002	< 0.002	< 0.002	< 0.002
CR-FDP	SGS	2023-01-18	CA13675-JAN23	0.000132	0.0004	0.00044	0.0001	0.00008	< 0.002	< 0.002	< 0.002	< 0.002
CR-FDP	SGS	2023-02-07	CA15283-FEB23	0.000104	0.00026	0.00039	0.00006	0.00009	0.003	0.002	< 0.002	< 0.002
CR-FDP	SGS	2023-03-29	CA15003-APR23	0.000119	0.00024	0.00042	0.00007	0.00009	< 0.002	0.002	< 0.002	< 0.002
CR-FDP	SGS	2023-04-19	CA15419-APR23	0.000113	0.00026	0.00047	0.00009	0.00012	< 0.002	< 0.002	< 0.002	< 0.002
CR-FDP	Flett	2023-05-26	TMWATR060923ZB1-008									
CR-FDP	Flett	2023-05-26	MTWATR060823JS1-008									
CR-FDP	ALS	2023-05-26	WP2309859-006	0.000108	<0.00050	0.00062			<0.0010	0.0059	<0.00030	0.00025
CR-FDP	Flett	2023-06-11	MTWATR062123JS3-002									
CR-FDP	Flett	2023-06-11	TMWATR062023ZB1-002									
CR-FDP	ALS	2023-06-11	WP2311825-001	0.000121	<0.00050	0.00086			<0.0010	<0.0030	<0.00030	0.00023
CR-FDP	Flett	2023-07-18	TMWATR080423ZB1-001									
CR-FDP	Flett	2023-07-18	MTWATR080223JS1-001									
CR-FDP	ALS	2023-07-18	WP2316178-003	0.000132	0.00052	0.00102			<0.0010	<0.0030	<0.00030	<0.00020
CR-FDP	ALS	2023-08-10	WP2319111	0.00014	<0.00050	0.00077			0.0011	<0.0030	<0.00030	<0.00020
CR-FDP	Flett	2023-08-10	TMWATR082323ZB1-016									
CR-FDP	Flett	2023-08-10	MTWATR082323JS1-019									
CR-FDP	ALS	2023-08-10	WP2319111-006									
CR-FDP	Flett	2023-09-02	TMWATR091823ZB1-001									
CR-FDP	Flett	2023-09-02	MTWATR091323JS2-001									
CR-FDP	ALS	2023-09-02	WP2322077-001	0.000124	<0.00050	0.00087			<0.0010	<0.0030	<0.00030	<0.00020
CR-FDP	Flett	2023-10-10	TMWATR110223ZB1-001									
CR-FDP	Flett	2023-10-10	MTWATR111923JS1-001									
CR-FDP	ALS	2023-10-10	WP2326292-006	0.000126	<0.00050	0.00115			<0.0010	<0.0030	<0.00030	0.00031
CR-FDP	ALS	2023-11-02	WP2328687	0.000074	0.00053	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
CR-FDP	Flett	2023-11-02	TMWATR110923ZB2-001									
CR-FDP	Flett	2023-11-02	MTWATR112023JS1-001									
CR-FDP	ALS	2023-11-02	WP2328687-004									
CR-FDP	ALS	2023-12-08	WP2332240	0.000093	<0.00050	0.00068			0.0025	0.0093	<0.00030	0.0004
CR-FDP	Flett	2023-12-08	TMWATR121923ZB1-001									
CR-FDP	Flett	2023-12-08	MTWATR122023JS1-001									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002											
CR-FDP	ALS	2024-01-16	WP2401461	6.35	7.32	0.1	4	30.8	<1.0	<1.0	<1.0	30.8	0.0308	6.06
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002											
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003											
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001											
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002											
CR-FDP	ALS	2024-01-16	WP2401461-002											
CR-FDP	ALS	2024-02-10	WP2403349	8.18	7.27	<0.10	2.6	31.8	<1.0	<1.0	<1.0	31.8	0.0129	1.08
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002											
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002											
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001											
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001											
CR-FDP	ALS	2024-02-10	WP2403349-007											
CR-FDP	ALS	2024-03-08	WP2405786	7.79	7.51	0.3	2.8	39.5	<1.0	<1.0	<1.0	39.5	0.0062	0.056
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002											
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001											
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001											
CR-FDP	ALS	2024-03-08	WP2405786-006											
CR-FDP	ALS	2024-04-03	WP2407826	7.45	7.37	0.7	<2.0	33.3	<1.0	<1.0	<1.0	33.3	0.0047	0.0537
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001											
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001											
CR-FDP	ALS	2024-04-03	WP2407826-002											
CR-FDP	ALS	2024-05-20	WP2412615	8.02	7.41	11.1	<2.0	28.3	<1.0	<1.0	<1.0	28.3	0.023	0.16
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009											
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009											
CR-FDP	ALS	2024-06-17	WP2415380	7.43	7.38	16.6	<2.0	26.6	<1.0	<1.0	<1.0	26.6	0.0243	0.149
CR-FDP	Flett	2024-06-17	TMWATR070224CH1											
CR-FDP	ALS	2024-07-07	WP2416896	6.91	7.49	20.7	<2.0	27.1	<1.0	<1.0	<1.0	27.1	0.0221	0.187
CR-FDP	Flett	2024-07-07	TMWATR072524CH2											
CR-FDP	Flett	2024-07-07	MTWATR072424JS2											
CR-FDP	ALS	2024-08-06	WP2419247	7.62	7.58	23.9	<2.0	33	<1.0	<1.0	<1.0	33	0.0234	0.137
CR-FDP	ALS	2024-08-06	WP2419247	7.62	7.57	23.9	<2.0	33.2	<1.0	<1.0	<1.0	33.2	0.0223	0.133
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008											
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008											
CR-FDP	ALS	2024-09-08	WP2421728	6.87	7.53	14.4	5	30.9	<1.0	<1.0	<1.0	30.9	0.0074	0.108
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001											
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001											
CR-FDP	ALS	2024-10-06	WP2423572	6.56	7.45	8.61	<2.0	30.2	<1.0	<1.0	<1.0	30.2	0.0254	0.217
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004											
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012											
CR-FDP	ALS	2024-11-06	WP2425806	6.6	7.58	1.91	<2.0	35	<1.0	<1.0	<1.0	35	0.0142	0.154
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019											
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019											
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004											
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003											
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003											
CR-REF	SGS	2022-04-26	CA15019-MAY22		7.2		< 2					32		0.062
CR-REF	SGS	2022-04-26	CA15019-MAY22		7.35		< 2					31		0.064
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007											
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007											
CR-REF	SGS	2022-06-05	CA15234-JUN22		7.59		< 2					25		0.112
CR-REF	SGS	2022-07-28		7.42	7.45	19.7	< 2					28		0.206

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002		0.0144										
CR-FDP	ALS	2024-01-16	WP2401461			<0.0010	0.0255	0.00038	0.00041	0.00371	0.0159	0.00907	0.0607	<0.000020	0.000227
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002												
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003												
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001												
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002												
CR-FDP	ALS	2024-01-16	WP2401461-002		0.0255										
CR-FDP	ALS	2024-02-10	WP2403349			<0.0010	0.0419	0.00042	0.00061	0.008	0.0105	0.0086	0.0236	<0.000020	0.000031
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002												
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002												
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001												
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001												
CR-FDP	ALS	2024-02-10	WP2403349-007		0.0419										
CR-FDP	ALS	2024-03-08	WP2405786			<0.0010	0.0248	0.00044	0.00045	0.01	0.0105	0.0102	0.0104	0.000021	<0.000020
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002												
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001												
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001												
CR-FDP	ALS	2024-03-08	WP2405786-006		0.0248										
CR-FDP	ALS	2024-04-03	WP2407826			<0.0010	0.0106	0.00032	0.00034	0.00841	0.00849	0.00765	0.00879	<0.000020	<0.000020
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001												
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001												
CR-FDP	ALS	2024-04-03	WP2407826-002		0.0106										
CR-FDP	ALS	2024-05-20	WP2412615			<0.0010	0.0137	0.00026	0.00027	0.00469	0.00615	0.00622	0.0079	<0.000020	<0.000020
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009												
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009												
CR-FDP	ALS	2024-06-17	WP2415380			<0.0010	0.0142	0.00026	0.00026	0.00458	0.00546	0.00669	0.00785	<0.000020	<0.000020
CR-FDP	Flett	2024-06-17	TMWATR070224CH1												
CR-FDP	ALS	2024-07-07	WP2416896			<0.0010	0.0067	0.00026	0.00033	0.00497	0.00549	0.00719	0.00834	<0.000020	<0.000020
CR-FDP	Flett	2024-07-07	TMWATR072524CH2												
CR-FDP	Flett	2024-07-07	MTWATR072424JS2												
CR-FDP	ALS	2024-08-06	WP2419247			<0.0010	0.0152	0.00027	0.00029	0.0112	0.0118	0.00812	0.0088	<0.000020	<0.000020
CR-FDP	ALS	2024-08-06	WP2419247			<0.0010	0.0083	0.00027	0.00028	0.0113	0.012	0.00799	0.0087	<0.000020	<0.000020
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008												
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008												
CR-FDP	ALS	2024-09-08	WP2421728			<0.0010	0.019	0.00027	0.0003	0.0107	0.0137	0.00688	0.00822	<0.000020	<0.000020
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001												
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001												
CR-FDP	ALS	2024-10-06	WP2423572			<0.0010	0.0165	0.00031	0.00031	0.00908	0.00946	0.00742	0.00881	<0.000020	<0.000020
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004												
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012												
CR-FDP	ALS	2024-11-06	WP2425806			<0.0010	0.0131	0.00028	0.00032	0.00674	0.00755	0.00783	0.00862	<0.000020	<0.000020
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019												
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019												
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004												
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003												
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003												
CR-REF	SGS	2022-04-26	CA15019-MAY22	0.009			< 0.1	< 0.0009	< 0.0009	0.0046	0.007	0.0069	0.00824	< 0.000007	< 0.000007
CR-REF	SGS	2022-04-26	CA15019-MAY22	0.027			< 0.1	< 0.0009	< 0.0009	0.0054	0.0073	0.0068	0.0082	0.000011	< 0.000007
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007												
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007												
CR-REF	SGS	2022-06-05	CA15234-JUN22	0.022			< 0.1	< 0.0009	< 0.0009	0.0037	0.0052	0.00553	0.00687	< 0.000007	< 0.000007
CR-REF	SGS	2022-07-28		0.03			< 0.1	< 0.0009	< 0.0009	0.0051	0.0055	0.00769	0.00883	< 0.000007	< 0.000007

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002													
CR-FDP	ALS	2024-01-16	WP2401461	<0.000050	0.000054	<0.010	0.012	<0.0000050	0.0000875	10.4	14.3	13.7	<0.000010	0.000696		3.54
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002													
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003													
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001													
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002													
CR-FDP	ALS	2024-01-16	WP2401461-002													
CR-FDP	ALS	2024-02-10	WP2403349	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000156	11.2	12	12.6	<0.000010	0.000129		3.42
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002													
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002													
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001													
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001													
CR-FDP	ALS	2024-02-10	WP2403349-007													
CR-FDP	ALS	2024-03-08	WP2405786	<0.000050	<0.000050	<0.010	<0.010	0.0000057	<0.0000050	14	14.6	13.6	<0.000010	<0.000010		3.8
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002													
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001													
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001													
CR-FDP	ALS	2024-03-08	WP2405786-006													
CR-FDP	ALS	2024-04-03	WP2407826	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.6	11.9	11.4	<0.000010	<0.000010		2.87
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001													
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001													
CR-FDP	ALS	2024-04-03	WP2407826-002													
CR-FDP	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.2	9.96	16.3	<0.000010	0.000019		2.53
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009													
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009													
CR-FDP	ALS	2024-06-17	WP2415380	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.85	9.85	12.5	<0.000010	0.000018		2.8
CR-FDP	Flett	2024-06-17	TMWATR070224CH1													
CR-FDP	ALS	2024-07-07	WP2416896	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.88	9.87	15.8	<0.000010	0.00002		2.7
CR-FDP	Flett	2024-07-07	TMWATR072524CH2													
CR-FDP	Flett	2024-07-07	MTWATR072424JS2													
CR-FDP	ALS	2024-08-06	WP2419247	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000072	12	12.2	14.1	<0.000010	0.000017		3
CR-FDP	ALS	2024-08-06	WP2419247	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.9	12.3	13.9	<0.000010	0.000017		3.01
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008													
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008													
CR-FDP	ALS	2024-09-08	WP2421728	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11	11.2	12	<0.000010	0.00002		3.02
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001													
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001													
CR-FDP	ALS	2024-10-06	WP2423572	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000057	10.4	11.1	14.6	<0.000010	0.000026		2.96
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004													
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012													
CR-FDP	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.2	11.9	13	<0.000010	0.000015		2.97
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019													
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019													
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004													
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003													
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003													
CR-REF	SGS	2022-04-26	CA15019-MAY22	< 0.00001	< 0.00001	0.008	0.009	< 0.000003	< 0.000003	10.3	11.8	10			24	3
CR-REF	SGS	2022-04-26	CA15019-MAY22	< 0.00001	< 0.00001	0.008	0.009	< 0.000003	< 0.000003	10.3	11.1	9			27	3
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007													
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007													
CR-REF	SGS	2022-06-05	CA15234-JUN22	< 0.00001	< 0.00001	0.005	0.005	< 0.000003	< 0.000003	8.66	9.1	9			32	4
CR-REF	SGS	2022-07-28		< 0.00001	< 0.00001	0.007	0.007	< 0.000004	< 0.000003	9.57	9.72	13			26	3

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002													
CR-FDP	ALS	2024-01-16	WP2401461	<0.00050	0.0133	0.00024	0.00427	90.7	0.00129	0.0134	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002													
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003													
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001													
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002													
CR-FDP	ALS	2024-01-16	WP2401461-002	0.00024												
CR-FDP	ALS	2024-02-10	WP2403349	0.00016	0.00299	<0.00010	0.00069	93.6	0.00162	0.00445	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002													
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002													
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001													
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001													
CR-FDP	ALS	2024-02-10	WP2403349-007													
CR-FDP	ALS	2024-03-08	WP2405786	0.00016	0.00032	<0.00010	<0.00010	113	0.00149	0.0017	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002													
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001													
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001													
CR-FDP	ALS	2024-03-08	WP2405786-006													
CR-FDP	ALS	2024-04-03	WP2407826	<0.00050	0.00061	<0.00010	<0.00010	95.7	0.0013	0.00149	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001													
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001													
CR-FDP	ALS	2024-04-03	WP2407826-002	0.00031	0.0002											
CR-FDP	ALS	2024-05-20	WP2412615	0.00013	0.00077	<0.00010	0.00013	81	0.00106	0.00142	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009													
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009													
CR-FDP	ALS	2024-06-17	WP2415380	0.00014	0.00039	<0.00010	0.00014	79.3	0.00118	0.00145	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-06-17	TMWATR070224CH1													
CR-FDP	ALS	2024-07-07	WP2416896	0.00014	0.00038	<0.00010	0.00014	80.2	0.00113	0.00141	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-07-07	TMWATR072524CH2													
CR-FDP	Flett	2024-07-07	MTWATR072424JS2													
CR-FDP	ALS	2024-08-06	WP2419247	<0.00010	0.00032	<0.00010	0.00011	96.2	0.00115	0.00149	0.0011	<0.0010		<0.0010		
CR-FDP	ALS	2024-08-06	WP2419247	0.00012	0.00036	<0.00010	0.00011	95.3	0.0012	0.00147	0.001	<0.0010		<0.0010		
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008													
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008													
CR-FDP	ALS	2024-09-08	WP2421728	<0.00010	0.00028	<0.00010	0.0001	90.5	0.00199	0.00122	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001													
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001													
CR-FDP	ALS	2024-10-06	WP2423572	0.00016	0.00046	<0.00010	0.00015	88.1	0.0012	0.00138	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004													
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012													
CR-FDP	ALS	2024-11-06	WP2425806	0.0002	0.00036	<0.00010	0.00013	95.9	0.00124	0.00139	<0.0010	<0.0010		<0.0010		
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019													
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019													
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004													
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003													
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003													
CR-REF	SGS	2022-04-26	CA15019-MAY22	< 0.00008	0.00026	0.000052	0.000097	86	0.0012	0.0015						0.06
CR-REF	SGS	2022-04-26	CA15019-MAY22	0.00016	0.00008	0.000034	0.000091	87	0.0012	0.0015						0.11
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007													
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007													
CR-REF	SGS	2022-06-05	CA15234-JUN22	0.00022	0.0004	0.000063	0.000105	71	0.0011	0.0013			< 0.01			< 0.06
CR-REF	SGS	2022-07-28		0.00029	0.00057	0.000077	0.000164	76	0.0016	0.0017			< 0.01			< 0.06

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002												
CR-FDP	ALS	2024-01-16	WP2401461	37.7	60.8	0.173	7.36	0.000092	0.00408	0.0016	0.0117	2.85	6.1	0.0612	0.2
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002												
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003												
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001												
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002												
CR-FDP	ALS	2024-01-16	WP2401461-002												
CR-FDP	ALS	2024-02-10	WP2403349	40.1	44.7	0.044	1.45	<0.000050	0.000632	0.002	0.0016	2.94	3.59	0.00661	0.0335
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002												
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002												
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001												
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001												
CR-FDP	ALS	2024-02-10	WP2403349-007												
CR-FDP	ALS	2024-03-08	WP2405786	48.8	50.2	0.026	0.076	<0.000050	<0.000050	0.0019	0.0021	3.35	3.34	0.00269	0.00509
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002												
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001												
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001												
CR-FDP	ALS	2024-03-08	WP2405786-006												
CR-FDP	ALS	2024-04-03	WP2407826	40.4	41.6	0.025	0.08	<0.000050	<0.000050	0.0015	0.0018	2.78	2.9	0.00334	0.00589
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001												
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001												
CR-FDP	ALS	2024-04-03	WP2407826-002												
CR-FDP	ALS	2024-05-20	WP2412615	36.2	35.7	0.048	0.231	<0.000050	0.000099	0.0017	0.0015	2.61	2.64	0.00161	0.0109
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009												
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009												
CR-FDP	ALS	2024-06-17	WP2415380	34.7	35.7	0.049	0.221	<0.000050	0.000118	0.0016	0.0015	2.46	2.69	0.00221	0.0103
CR-FDP	Flett	2024-06-17	TMWATR070224CH1												
CR-FDP	ALS	2024-07-07	WP2416896	34.9	35.6	0.058	0.254	<0.000050	0.000103	0.0016	0.0012	2.48	2.67	0.0019	0.0108
CR-FDP	Flett	2024-07-07	TMWATR072524CH2												
CR-FDP	Flett	2024-07-07	MTWATR072424JS2												
CR-FDP	ALS	2024-08-06	WP2419247	40.6	42.4	0.039	0.153	<0.000050	0.000077	0.0014	0.0022	2.58	2.89	0.00096	0.0108
CR-FDP	ALS	2024-08-06	WP2419247	40.6	42.5	0.039	0.149	<0.000050	0.000072	0.0014	0.0021	2.65	2.87	0.00101	0.0113
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008												
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008												
CR-FDP	ALS	2024-09-08	WP2421728	38.7	38.7	0.07	0.134	<0.000050	0.00007	0.0022	0.0018	2.72	2.6	0.0106	0.0108
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001												
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001												
CR-FDP	ALS	2024-10-06	WP2423572	37.1	38.8	0.072	0.263	<0.000050	0.000099	0.0012	0.003	2.7	2.69	0.00271	0.0106
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004												
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012												
CR-FDP	ALS	2024-11-06	WP2425806	42.5	43.3	0.191	0.196	<0.000050	0.000062	0.0012	0.0019	2.92	3.29	0.00334	0.0106
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019												
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019												
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004												
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003												
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003												
CR-REF	SGS	2022-04-26	CA15019-MAY22	35.8	40.6	0.02	0.084	< 0.00009	< 0.00009	0.0015	0.0017	2.43	2.74	0.00119	0.00531
CR-REF	SGS	2022-04-26	CA15019-MAY22	35.4	38.8	0.02	0.083	< 0.00009	< 0.00009	0.0015	0.0017	2.38	2.68	0.00134	0.005
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007												
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007												
CR-REF	SGS	2022-06-05	CA15234-JUN22	30.4	32	0.051	0.182	0.0001	0.00013	0.0012	0.0013	2.12	2.27	0.00017	0.00916
CR-REF	SGS	2022-07-28		33	33.5	0.076	0.228	< 0.00009	0.00013			2.22	2.24	0.00409	0.0145

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002												
CR-FDP	ALS	2024-01-16	WP2401461	<0.0000050		0.0000124		0.000198	0.000199	0.00141	0.0128	0.0735	0.0735	<0.0010	
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002				11.4								
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003		0.611										
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001				11.2								
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002		0.657										
CR-FDP	ALS	2024-01-16	WP2401461-002												
CR-FDP	ALS	2024-02-10	WP2403349	<0.0000050		<0.0000050		0.000235	0.000226	0.00127	0.00361	0.183	0.185	0.0021	
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002				1.88								
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002		0.085										
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001				1.95								
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001		0.084										
CR-FDP	ALS	2024-02-10	WP2403349-007												
CR-FDP	ALS	2024-03-08	WP2405786	<0.0000050		<0.0000050		0.000261	0.000273	0.00137	0.00147	0.173	0.175	0.0019	
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002		0.032										
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001				0.65								
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001		0.033										
CR-FDP	ALS	2024-03-08	WP2405786-006												
CR-FDP	ALS	2024-04-03	WP2407826	<0.0000050		<0.0000050		0.000213	0.000257	0.00132	0.00168	0.0777	0.0777	<0.0010	
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001				0.61								
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001		0.027										
CR-FDP	ALS	2024-04-03	WP2407826-002												
CR-FDP	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000156	0.000176	0.00105	0.00142	0.0072	0.0072	<0.0010	
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009				1.59								
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009		0.037										
CR-FDP	ALS	2024-06-17	WP2415380	<0.0000050		<0.0000050		0.000154	0.000141	0.00101	0.00139	0.0096	0.0096	<0.0010	<0.030
CR-FDP	Flett	2024-06-17	TMWATR070224CH1				1.32								
CR-FDP	ALS	2024-07-07	WP2416896	<0.0000050		<0.0000050		0.000126	0.000177	0.00107	0.00127	<0.0050	<0.0051	<0.0010	
CR-FDP	Flett	2024-07-07	TMWATR072524CH2				1.36								
CR-FDP	Flett	2024-07-07	MTWATR072424JS2		0.047										
CR-FDP	ALS	2024-08-06	WP2419247	<0.0000050		<0.0000050		0.000219	0.000237	0.00104	0.00131	0.0056	0.0056	<0.0010	
CR-FDP	ALS	2024-08-06	WP2419247	<0.0000050		<0.0000050		0.000205	0.000249	0.00098	0.00131	0.0072	0.0072	<0.0010	
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008				0.78								
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008		0.052										
CR-FDP	ALS	2024-09-08	WP2421728	<0.0000050		<0.0000050		0.0002	0.000224	0.00093	0.00122	<0.0050	<0.0051	<0.0010	<0.03
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001				0.59								
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001		0.048										
CR-FDP	ALS	2024-10-06	WP2423572	<0.0000050		<0.0000050		0.000211	0.0002	0.0012	0.00136	<0.0050	<0.0051	<0.0010	<0.030
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004				0.98								
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012		0.041										
CR-FDP	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.00023	0.000195	0.00119	0.00136	0.0063	0.0063	<0.0010	<0.030
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019		0.035										
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019				0.79								
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004		0.026										
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003		0.031										
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003				0.74								
CR-REF	SGS	2022-04-26	CA15019-MAY22	< 0.00001				0.00019	0.00021	0.0012	0.0014	0.12	0.12	< 0.03	
CR-REF	SGS	2022-04-26	CA15019-MAY22	< 0.00001				0.00019	0.0002	0.0011	0.0013	0.13	0.13	< 0.03	
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007				1.74								
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007		0.034										
CR-REF	SGS	2022-06-05	CA15234-JUN22	< 0.00001		< 0.00001		0.00018	0.00017	0.001	0.0019	< 0.06	< 0.06	< 0.03	
CR-REF	SGS	2022-07-28				< 0.00001		0.00028	0.00023	0.0011	0.0012	< 0.06	< 0.06	< 0.03	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002				<0.030								
CR-FDP	ALS	2024-01-16	WP2401461	<0.050	0.422	0.408	0.422	1.07	2.36		0.00154	0.0143	0.000099	0.000093	1.64
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002												
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003												
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001												
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002												
CR-FDP	ALS	2024-01-16	WP2401461-002	<0.030											
CR-FDP	ALS	2024-02-10	WP2403349	<0.030	0.092	0.101	0.092	1.17	1.46		0.00162	0.00383	0.000108	0.000188	1.64
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002												
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002												
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001												
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001												
CR-FDP	ALS	2024-02-10	WP2403349-007												
CR-FDP	ALS	2024-03-08	WP2405786	<0.030	<0.030	0.0248	<0.050	1.36	1.4		0.00204	0.00217	0.000115	0.00012	1.95
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002												
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001												
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001												
CR-FDP	ALS	2024-03-08	WP2405786-006				<0.03								
CR-FDP	ALS	2024-04-03	WP2407826	<0.050	<0.030	0.0184	<0.050	1.14	1.16		0.00166	0.00181	0.000112	0.000104	1.61
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001												
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001												
CR-FDP	ALS	2024-04-03	WP2407826-002	<0.030			<0.03								
CR-FDP	ALS	2024-05-20	WP2412615	<0.030	<0.030	0.0226	<0.050	0.98	0.949		0.00152	0.00176	<0.000050	0.000085	1.68
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009												
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009												
CR-FDP	ALS	2024-06-17	WP2415380	<0.050	<0.030	0.0263	<0.050	0.921	0.992		0.00153	0.0019	0.000081	<0.000050	1.67
CR-FDP	Flett	2024-06-17	TMWATR070224CH1												
CR-FDP	ALS	2024-07-07	WP2416896	<0.030	<0.030	0.026	<0.050	0.938	0.947		0.00158	0.00196	<0.000050	0.000138	1.6
CR-FDP	Flett	2024-07-07	TMWATR072524CH2												
CR-FDP	Flett	2024-07-07	MTWATR072424JS2												
CR-FDP	ALS	2024-08-06	WP2419247	<0.030	<0.030	0.0303	<0.050	0.954	1.07		0.0018	0.00201	0.000107	0.000092	1.58
CR-FDP	ALS	2024-08-06	WP2419247	<0.030	0.034	0.0309	<0.050	0.955	1.06		0.00184	0.00199	0.000087	0.000092	1.6
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008												
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008												
CR-FDP	ALS	2024-09-08	WP2421728	<0.050	0.035	0.0686	<0.050	0.986	0.989		0.0017	0.00212	<0.000050	0.000118	2.01
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001												
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001												
CR-FDP	ALS	2024-10-06	WP2423572		0.031	0.0288		1.06	0.968		0.00176	0.00203	0.000086	0.000073	2
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004												
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012												
CR-FDP	ALS	2024-11-06	WP2425806		<0.030	0.0217		1.03	1.1		0.00154	0.00188	0.000126	0.000119	2.07
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019												
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019												
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004												
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003												
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003												
CR-REF	SGS	2022-04-26	CA15019-MAY22	0.007			0.008	0.956	1.09				0.00011	< 0.00004	1.48
CR-REF	SGS	2022-04-26	CA15019-MAY22	0.01			0.009	0.968	1.06				0.00007	< 0.00004	1.57
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007												
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007												
CR-REF	SGS	2022-06-05	CA15234-JUN22	0.005			0.017	0.879	0.98				0.00006	0.00006	1.34
CR-REF	SGS	2022-07-28		0.026			0.079	0.939	0.996				0.0001	0.00014	1.53

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002													
CR-FDP	ALS	2024-01-16	WP2401461	11.3	<0.000010	0.000028	4.42	4.16	79.6	467	0.0297	0.047	2.94	6.03	6.85	<0.00020
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002													
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003													
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001													
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002													
CR-FDP	ALS	2024-01-16	WP2401461-002													
CR-FDP	ALS	2024-02-10	WP2403349	4.1	<0.000010	0.000012	4.69	4.62	85.3	129	0.0312	0.0358	2.56	2.99	5.91	<0.00020
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002													
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002													
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001													
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001													
CR-FDP	ALS	2024-02-10	WP2403349-007													
CR-FDP	ALS	2024-03-08	WP2405786	2.04	<0.000010	<0.000010	3	3.22	77.5	2.9	0.0364	0.0388	2.7	2.53	7.61	<0.00020
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002													
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001													
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001													
CR-FDP	ALS	2024-03-08	WP2405786-006													
CR-FDP	ALS	2024-04-03	WP2407826	1.72	<0.000010	<0.000010	2.67	2.88	53	1.7	0.0311	0.0317	2.23	2.45	6.19	<0.00020
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001													
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001													
CR-FDP	ALS	2024-04-03	WP2407826-002													
CR-FDP	ALS	2024-05-20	WP2412615	2.04	<0.000010	<0.000010	2.36	2.38	79.6	5.5	0.029	0.0284	1.94	1.97	5.11	<0.00020
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009													
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009													
CR-FDP	ALS	2024-06-17	WP2415380	1.94	<0.000010	<0.000010	2.48	2.63	56.6	8	0.028	0.0285	2.25	2.35	5.83	<0.00020
CR-FDP	Flett	2024-06-17	TMWATR070224CH1													
CR-FDP	ALS	2024-07-07	WP2416896	2.01	<0.000010	<0.000010	2.46	2.62	55.8	7.1	0.0282	0.0279	2.2	2.37	6.24	<0.00020
CR-FDP	Flett	2024-07-07	TMWATR072524CH2													
CR-FDP	Flett	2024-07-07	MTWATR072424JS2													
CR-FDP	ALS	2024-08-06	WP2419247	2.09	<0.000010	<0.000010	2.42	2.72	73.4	4	0.0308	0.0337	2.01	2.37	6.46	<0.00020
CR-FDP	ALS	2024-08-06	WP2419247	2.07	<0.000010	<0.000010	2.48	2.79	70.1	3	0.0311	0.0335	1.92	2.46	6.42	<0.00020
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008													
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008													
CR-FDP	ALS	2024-09-08	WP2421728	2.16	<0.000010	<0.000010	2.47	2.37	54.2	4.1	0.0295	0.0312	2.18	2.02	6.23	<0.00020
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001													
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001													
CR-FDP	ALS	2024-10-06	WP2423572	2.44	<0.000010	<0.000010	2.75	2.41	58.5	6.8	0.0307	0.0315	2.07	2.08	6.13	<0.00020
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004													
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012													
CR-FDP	ALS	2024-11-06	WP2425806	2.42	<0.000010	<0.000010	2.73	2.69	53.3	3	0.0312	0.0303	2.28	2.11	5.99	<0.00020
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019													
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019													
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004													
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003													
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003													
CR-REF	SGS	2022-04-26	CA15019-MAY22	1.87	< 0.00005	< 0.00005	2.37	2.68	83	4	0.0305	0.0343	2	2	8	
CR-REF	SGS	2022-04-26	CA15019-MAY22	1.81	< 0.00005	< 0.00005	2.35	2.6	74	2	0.0294	0.0329	2	2	8	
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007													
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007													
CR-REF	SGS	2022-06-05	CA15234-JUN22	1.59	< 0.00005	< 0.00005	2.63	2.85	46	2	0.0242	0.0245		2	8	
CR-REF	SGS	2022-07-28		1.83	< 0.00005	< 0.00005	2.64	2.62	< 30	5	0.0273	0.0282	3	4	< 2	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002													
CR-FDP	ALS	2024-01-16	WP2401461	<0.00020	<0.000010	0.000087	<0.00010	0.00073	<0.00010	0.00033	0.00142	0.292		<0.00010	0.00013	0.000084
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002													
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003													
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001													
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002													
CR-FDP	ALS	2024-01-16	WP2401461-002													
CR-FDP	ALS	2024-02-10	WP2403349	<0.00020	<0.000010	0.000016	<0.00010	0.0002	<0.00010	0.00013	0.0004	0.0659		<0.00010	<0.00010	0.000097
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002													
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002													
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001													
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001													
CR-FDP	ALS	2024-02-10	WP2403349-007													
CR-FDP	ALS	2024-03-08	WP2405786	<0.00020	0.000011	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00241		<0.00010	<0.00010	0.000119
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002													
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001													
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001													
CR-FDP	ALS	2024-03-08	WP2405786-006													
CR-FDP	ALS	2024-04-03	WP2407826	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00274		<0.00010	<0.00010	0.000102
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001													
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001													
CR-FDP	ALS	2024-04-03	WP2407826-002													
CR-FDP	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00056	0.00788		<0.00010	<0.00010	0.000068
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009													
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009													
CR-FDP	ALS	2024-06-17	WP2415380	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00065	0.00779		<0.00010	<0.00010	0.000067
CR-FDP	Flett	2024-06-17	TMWATR070224CH1													
CR-FDP	ALS	2024-07-07	WP2416896	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00052	0.00794		<0.00010	<0.00010	0.000063
CR-FDP	Flett	2024-07-07	TMWATR072524CH2													
CR-FDP	Flett	2024-07-07	MTWATR072424JS2													
CR-FDP	ALS	2024-08-06	WP2419247	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00076	0.00548		<0.00010	<0.00010	0.000115
CR-FDP	ALS	2024-08-06	WP2419247	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00079	0.00559		<0.00010	<0.00010	0.000109
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008													
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008													
CR-FDP	ALS	2024-09-08	WP2421728	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0003	0.00511		<0.00010	<0.00010	0.000084
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001													
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001													
CR-FDP	ALS	2024-10-06	WP2423572	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00068	0.00992		<0.00010	<0.00010	0.000088
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004													
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012													
CR-FDP	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00033	0.00676		<0.00010	<0.00010	0.000122
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019													
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019													
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004													
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003													
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003													
CR-REF	SGS	2022-04-26	CA15019-MAY22		< 0.000005	< 0.000005			< 0.00006	0.00006	0.00061	0.00225	9	0.00003	0.00002	0.000072
CR-REF	SGS	2022-04-26	CA15019-MAY22		< 0.000005	< 0.000005			< 0.00006	0.00007	< 0.00005	0.00202	8	0.00003	0.00003	0.000073
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007													
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007													
CR-REF	SGS	2022-06-05	CA15234-JUN22		< 0.000005	< 0.000005			< 0.00006	< 0.00006			11	< 0.00002	< 0.00002	0.000052
CR-REF	SGS	2022-07-28			< 0.000005	< 0.000005			< 0.00006	0.00009	0.00186	0.00797	12	0.00002	0.00004	0.000074

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
CR-FDP	ALS	2023-12-08	WP2332240-002									
CR-FDP	ALS	2024-01-16	WP2401461	0.000641	0.00056	0.0143			0.002	0.0384	<0.00030	0.0014
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-002									
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-003									
CR-FDP	Flett	2024-01-16	TMWATR012524JS2-001									
CR-FDP	Flett	2024-01-16	MTWATR020924JS1-002									
CR-FDP	ALS	2024-01-16	WP2401461-002									
CR-FDP	ALS	2024-02-10	WP2403349	0.000197	<0.00050	0.00285			0.0045	0.0145	<0.00030	0.00057
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-002									
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-002									
CR-FDP	Flett	2024-02-10	TMWATR022824CH1-001									
CR-FDP	Flett	2024-02-10	MTWATR030824JS1-001									
CR-FDP	ALS	2024-02-10	WP2403349-007									
CR-FDP	ALS	2024-03-08	WP2405786	0.000123	<0.00050	<0.00050			0.0026	0.0033	<0.00030	<0.00020
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-002									
CR-FDP	Flett	2024-03-08	TMWATR032024CH1-001									
CR-FDP	Flett	2024-03-08	MTWATR032124JS1-001									
CR-FDP	ALS	2024-03-08	WP2405786-006									
CR-FDP	ALS	2024-04-03	WP2407826	0.000118	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
CR-FDP	Flett	2024-04-03	TMWATR042224CH1-001									
CR-FDP	Flett	2024-04-03	MTWATR041624JS1-001									
CR-FDP	ALS	2024-04-03	WP2407826-002									
CR-FDP	ALS	2024-05-20	WP2412615	0.000092	<0.00050	0.00057			<0.0010	<0.0030	<0.00030	<0.00020
CR-FDP	Flett	2024-05-20	TMWATR061924CH1-009									
CR-FDP	Flett	2024-05-20	MTWATR061024JS1-009									
CR-FDP	ALS	2024-06-17	WP2415380	0.00008	<0.00050	0.00064			<0.0010	<0.0030	<0.00030	<0.00020
CR-FDP	Flett	2024-06-17	TMWATR070224CH1									
CR-FDP	ALS	2024-07-07	WP2416896	0.000086	<0.00050	0.0007			<0.0010	<0.0030	<0.00030	0.00022
CR-FDP	Flett	2024-07-07	TMWATR072524CH2									
CR-FDP	Flett	2024-07-07	MTWATR072424JS2									
CR-FDP	ALS	2024-08-06	WP2419247	0.000122	0.00054	0.00082			0.0019	<0.0030	<0.00030	0.00021
CR-FDP	ALS	2024-08-06	WP2419247	0.000121	0.00054	0.00081			<0.0010	<0.0030	<0.00030	0.00022
CR-FDP	Flett	2024-08-06	TMWATR091124CH1-008									
CR-FDP	Flett	2024-08-06	MTWATR091624JS1-008									
CR-FDP	ALS	2024-09-08	WP2421728	0.000112	<0.00050	0.00068			0.0018	<0.0030	<0.00030	<0.00020
CR-FDP	Flett	2024-09-08	TMWATR092924CH1-001									
CR-FDP	Flett	2024-09-08	MTWATR100124JS1-001									
CR-FDP	ALS	2024-10-06	WP2423572	0.00011	<0.00050	0.00082			<0.0010	<0.0030	<0.00030	0.00024
CR-FDP	Flett	2024-10-06	TMWATR102524ZB2-004									
CR-FDP	Flett	2024-10-06	MTWATR112624JS1-012									
CR-FDP	ALS	2024-11-06	WP2425806	0.000133	<0.00050	0.00069			<0.0010	<0.0030	<0.00030	0.00022
CR-FDP	Flett	2024-11-06	MTWATR120524JS1-019									
CR-FDP	Flett	2024-11-06	TMWATR112524CH1-019									
CR-REF	Flett	2021-10-19	MTWATR102721JS1-004									
CR-REF	Flett	2021-10-19	MTWATR102721JS1-003									
CR-REF	Flett	2021-10-19	TMWATR102521ZB1-003									
CR-REF	SGS	2022-04-26	CA15019-MAY22	0.000084	0.0003	0.00043	0.00006	0.00007	< 0.002	< 0.002	< 0.002	< 0.002
CR-REF	SGS	2022-04-26	CA15019-MAY22	0.000085	0.00018	0.00039	0.00005	0.00008	< 0.002	< 0.002	< 0.002	< 0.002
CR-REF	Flett	2022-06-05	TMWATR061322ZB1-007									
CR-REF	Flett	2022-06-05	MTWATR061722JS2-007									
CR-REF	SGS	2022-06-05	CA15234-JUN22	0.000067	0.00016	0.0004	0.00009	0.00011	< 0.002	0.003	< 0.002	< 0.002
CR-REF	SGS	2022-07-28		0.000087	0.00041	0.00063	0.00013	0.00016	< 0.002	< 0.002	< 0.002	< 0.002

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009											
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008											
CR-REF	SGS	2022-08-09	CA15226-AUG22	6.31	7.61	20.8	< 2					27	0.085	0.144
CR-REF	SGS	2022-09-14												
CR-REF	SGS	2022-09-14	CA15266-SEP22	7.18	7.28	17.3	< 2					28	0.076	0.11
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011											
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011											
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003											
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003											
CR-REF	SGS	2022-11-07	CA15216-NOV22	7.68	7.51	2.8	< 2					32		0.016
CR-REF	SGS	2023-01-23	CA15070-FEB23	6.6	7.1	2.55	< 2					29		0.095
CR-REF	SGS	2023-02-07	CA15283-FEB23	0.31	7.48	7.14	< 2					30		0.062
CR-REF	SGS	2023-03-30	CA15003-APR23	6.59	7.38	3.98	< 2					26	0.012	0.211
CR-REF	SGS	2023-04-20	CA15419-APR23	7.22	7.41	2.33	5					30	0.228	1.08
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007											
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007											
CR-REF	ALS	2023-05-30	WP2310312-001	7.73	7.63	19.6	4.2	28.4	<1.0	<1.0	<1.0	28.4	0.0125	0.222
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001											
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001											
CR-REF	ALS	2023-06-11	WP2311825-003	7.7	7.6	20.5	<2.0	30.7	<1.0	<1.0	<1.0	30.7	0.0135	0.255
CR-REF	ALS	2023-07-16	WP2316171	7.6	7.59	18.9	<2.0	33.3	<1.0	<1.0	<1.0	33.3	0.021	0.55
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006											
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008											
CR-REF	ALS	2023-07-16	WP2316171-002											
CR-REF	ALS	2023-08-10	WP2319111	8.16	7.63	22	<2.0	34.4	<1.0	<1.0	<1.0	34.4	0.0249	0.288
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015											
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018											
CR-REF	ALS	2023-08-10	WP2319111-008											
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007											
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007											
CR-REF	ALS	2023-09-02	WP2322077-003	8.03	7.68	21.8	<2.0	34.8	<1.0	<1.0	<1.0	34.8	0.0333	0.379
CR-REF	ALS	2023-10-10	WP2326292-009	7.73	7.52	11.4	2.7	31.4	<1.0	<1.0	<1.0	31.4	0.0381	0.386
CR-REF	ALS	2023-10-10	WP2326292-008	7.73	7.5	11.4	2.7	30.8	<1.0	<1.0	<1.0	30.8	0.0411	0.244
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007											
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007											
CR-REF	ALS	2023-11-02	WP2328687	7.36	7.48	2.4	2.5	30	<1.0	<1.0	<1.0	30	0.11	0.0211
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009											
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009											
CR-REF	ALS	2023-11-02	WP2328687-003											
CR-REF	ALS	2023-12-08	WP2332240	8.33	7.5	1.7	2.1	30.6	<1.0	<1.0	<1.0	30.6	0.0081	0.0663
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006											
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005											
CR-REF	ALS	2023-12-08	WP2332240-001											
CR-REF	ALS	2024-01-16	WP2401461	6.74	7.43	<0.10	<2.0	30.4	<1.0	<1.0	<1.0	30.4	0.0063	0.0538
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001											
CR-REF	ALS	2024-01-16	WP2401461-003											
CR-REF	ALS	2024-01-24	WP2401958	7.39	7.53	1.5	2.9	30.9	<1.0	<1.0	<1.0	30.9	0.0063	0.0498
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002											
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001											
CR-REF	ALS	2024-01-24	WP2401958-001											
CR-REF	ALS	2024-02-10	WP2403349	8.21	7.26	0.3	2.4	27.1	<1.0	<1.0	<1.0	27.1	0.0065	0.0431
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009												
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008												
CR-REF	SGS	2022-08-09	CA15226-AUG22	0.012			< 0.1	< 0.0009	< 0.0009	0.0071	0.0067	0.00828	0.00885	0.000007	0.000007
CR-REF	SGS	2022-09-14													
CR-REF	SGS	2022-09-14	CA15266-SEP22	0.006			0.1	< 0.0009	< 0.0009	0.0087	0.0079	0.00664	0.00708	< 0.000007	0.000008
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011												
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011												
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003												
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003												
CR-REF	SGS	2022-11-07	CA15216-NOV22	0.016			< 0.1	< 0.0009	< 0.0009	0.0052	0.0054	0.00683	0.00755	0.000032	0.000016
CR-REF	SGS	2023-01-23	CA15070-FEB23	0.011			< 0.1	< 0.0009	< 0.0009	0.0072	0.0085	0.00747	0.00783	0.000025	0.000023
CR-REF	SGS	2023-02-07	CA15283-FEB23	0.009			< 0.1	< 0.0009	< 0.0009	0.0078	0.0095	0.00698	0.00715	< 0.000007	< 0.000007
CR-REF	SGS	2023-03-30	CA15003-APR23	0.011			< 0.1	< 0.0009	< 0.0009	0.0079	0.0098	0.00754	0.0109	0.000017	0.000027
CR-REF	SGS	2023-04-20	CA15419-APR23	0.035			< 0.1	< 0.0009	< 0.0009	0.0032	0.0047	0.0104	0.017	0.000016	0.000032
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007												
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007												
CR-REF	ALS	2023-05-30	WP2310312-001		<0.010	<0.0010		0.00021	0.00027	0.00443	0.00558	0.0057	0.00844	<0.000020	<0.000020
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001												
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001												
CR-REF	ALS	2023-06-11	WP2311825-003		<0.010	<0.0010		0.00024	0.00026	0.00505	0.00576	0.00719	0.00882	<0.000020	<0.000020
CR-REF	ALS	2023-07-16	WP2316171			<0.0010	0.053	0.00029	0.00035	0.00867	0.0103	0.00856	0.0128	<0.000020	0.000031
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006												
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008												
CR-REF	ALS	2023-07-16	WP2316171-002		0.053										
CR-REF	ALS	2023-08-10	WP2319111			<0.0010	<0.010	0.00029	0.00029	0.0127	0.0134	0.00784	0.00973	<0.000020	<0.000020
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015												
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018												
CR-REF	ALS	2023-08-10	WP2319111-008		<0.010										
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007												
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007												
CR-REF	ALS	2023-09-02	WP2322077-003		0.037	0.0017		0.00028	0.00032	0.0141	0.0166	0.00767	0.0119	<0.000020	<0.000020
CR-REF	ALS	2023-10-10	WP2326292-009		0.0168	<0.0010		0.00032	0.00032	0.00918	0.00979	0.00775	0.0104	<0.000020	<0.000020
CR-REF	ALS	2023-10-10	WP2326292-008		0.0184	<0.0010		0.00031	0.00032	0.00878	0.00986	0.00812	0.00953	<0.000020	<0.000020
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007												
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007												
CR-REF	ALS	2023-11-02	WP2328687			<0.0010	0.0081	0.00033	0.00031	0.00858	0.00753	0.00837	0.00686	<0.000020	<0.000020
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009												
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009												
CR-REF	ALS	2023-11-02	WP2328687-003		0.0081										
CR-REF	ALS	2023-12-08	WP2332240			<0.0010	0.0067	0.00037	0.00036	0.00802	0.0089	0.00741	0.00801	<0.000020	<0.000020
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006												
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005												
CR-REF	ALS	2023-12-08	WP2332240-001		0.0067										
CR-REF	ALS	2024-01-16	WP2401461			<0.0010	0.0273	0.00032	0.0003	0.0079	0.00827	0.00702	0.00718	<0.000020	<0.000020
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001												
CR-REF	ALS	2024-01-16	WP2401461-003		0.0273										
CR-REF	ALS	2024-01-24	WP2401958			<0.0010	0.0106	0.00032	0.00032	0.00833	0.00853	0.00729	0.00808	<0.000020	<0.000020
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002												
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001												
CR-REF	ALS	2024-01-24	WP2401958-001		0.0106										
CR-REF	ALS	2024-02-10	WP2403349			0.004	0.294	0.00033	0.00036	0.00762	0.00768	0.00666	0.00785	<0.000020	<0.000020
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009													
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008													
CR-REF	SGS	2022-08-09	CA15226-AUG22	< 0.00001	< 0.00001	0.006	0.007	< 0.000004	< 0.000003	9.44	9.76	12			29	2
CR-REF	SGS	2022-09-14														
CR-REF	SGS	2022-09-14	CA15266-SEP22	< 0.00001	< 0.00001	0.007	0.03	0.000005	0.000006	9.34	9.21	12			76	2
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011													
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011													
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003													
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003													
CR-REF	SGS	2022-11-07	CA15216-NOV22	< 0.00001	< 0.00001	0.004	0.004	0.000006	0.000005	9.09	9.64	11			27	3
CR-REF	SGS	2023-01-23	CA15070-FEB23	< 0.00001	< 0.00001	0.005	0.005	0.000051	0.000041	8.95	9.49	10			16	3
CR-REF	SGS	2023-02-07	CA15283-FEB23	< 0.00001	< 0.00001	0.005	0.005	< 0.000004	0.000004	9.96	11.5	11			27	4
CR-REF	SGS	2023-03-30	CA15003-APR23	< 0.00001	0.00001	0.005	0.006	0.000018	0.000037	10.6	11	10			15	4
CR-REF	SGS	2023-04-20	CA15419-APR23	< 0.00001	0.00001	0.005	0.005	0.000009	0.000015	10.8	11.5	11			46	2
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007													
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007													
CR-REF	ALS	2023-05-30	WP2310312-001	<0.000050	<0.000050	0.011	<0.010	<0.0000050	<0.0000050	10.8	9.78	13	<0.000010	0.000027		2.18
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001													
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001													
CR-REF	ALS	2023-06-11	WP2311825-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	9.52	9.71	11.1	<0.000010	0.00003		2.2
CR-REF	ALS	2023-07-16	WP2316171	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000108	11.6	11.7	13.2	<0.000010	0.000076		2.25
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006													
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008													
CR-REF	ALS	2023-07-16	WP2316171-002													
CR-REF	ALS	2023-08-10	WP2319111	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000008	11.4	11.3	13.6	<0.000010	0.000038		2.31
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015													
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018													
CR-REF	ALS	2023-08-10	WP2319111-008													
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007													
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007													
CR-REF	ALS	2023-09-02	WP2322077-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000064	11.6	10.2	12.2	<0.000010	0.000042		2.25
CR-REF	ALS	2023-10-10	WP2326292-009	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000065	10.3	10.6	15.3	<0.000010	0.000045		2.48
CR-REF	ALS	2023-10-10	WP2326292-008	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.3	10.7	15.5	<0.000010	0.000024		2.43
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007													
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007													
CR-REF	ALS	2023-11-02	WP2328687	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.4	10.6	11.9	0.000017	<0.000010		2.47
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009													
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009													
CR-REF	ALS	2023-11-02	WP2328687-003													
CR-REF	ALS	2023-12-08	WP2332240	<0.000050	<0.000050	<0.010	0.011	<0.0000050	<0.0000050	10.3	10.8	10.9	<0.000010	0.00001		2.31
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006													
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005													
CR-REF	ALS	2023-12-08	WP2332240-001													
CR-REF	ALS	2024-01-16	WP2401461	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10	10.3	12	<0.000010	<0.000010		2.91
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001													
CR-REF	ALS	2024-01-16	WP2401461-003													
CR-REF	ALS	2024-01-24	WP2401958	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.8	10.8	11.6	<0.000010	<0.000010		2.47
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002													
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001													
CR-REF	ALS	2024-01-24	WP2401958-001													
CR-REF	ALS	2024-02-10	WP2403349	<0.000050	<0.000050	<0.010	<0.010	0.0000055	0.0000118	10.4	9.58	12.2	<0.000010	<0.000010		3.28
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009													
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008													
CR-REF	SGS	2022-08-09	CA15226-AUG22	0.00044	0.00068	0.000136	0.000172	66	0.0014	0.0017			< 0.01			0.06
CR-REF	SGS	2022-09-14														
CR-REF	SGS	2022-09-14	CA15266-SEP22	0.00038	0.00044	0.000095	0.00012	67	0.0012	0.0014			< 0.01			< 0.06
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011													
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011													
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003													
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003													
CR-REF	SGS	2022-11-07	CA15216-NOV22	0.00009	0.00033	0.000059	0.00006	74	0.0014	0.0015	< 0.005		< 0.01	< 0.01		0.07
CR-REF	SGS	2023-01-23	CA15070-FEB23	< 0.00008	0.00059	0.000062	0.000112	29	0.0013	0.0016	< 0.005		< 0.01	< 0.01		0.08
CR-REF	SGS	2023-02-07	CA15283-FEB23	0.00009	0.00021	0.000044	0.000084	72	0.0014	0.0017	< 0.005		< 0.01	< 0.01		0.07
CR-REF	SGS	2023-03-30	CA15003-APR23	< 0.00008	0.00102	0.000072	0.000312	67	0.0015	0.0027	< 0.005		< 0.01			< 0.06
CR-REF	SGS	2023-04-20	CA15419-APR23	0.00061	0.00188	0.000087	0.000412	82	0.0027	0.0034	< 0.005		< 0.01			< 0.06
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007													
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007													
CR-REF	ALS	2023-05-30	WP2310312-001	0.00014	0.00057	<0.00010	0.00015	78	0.00097	0.00142	<0.0010	0.0018		0.001		
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001													
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001													
CR-REF	ALS	2023-06-11	WP2311825-003	0.00015	0.00057	<0.00010	0.00018	74.2	0.00116	0.00157	<0.0010	<0.0010		<0.0010		
CR-REF	ALS	2023-07-16	WP2316171	0.00013	0.00119	<0.00010	0.00037	87.9	0.00126	0.00216	0.0013	0.0013		0.001		
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006													
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008													
CR-REF	ALS	2023-07-16	WP2316171-002													
CR-REF	ALS	2023-08-10	WP2319111	0.00012	0.00067	<0.00010	0.00023	89.5	0.00119	0.00164	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015													
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018													
CR-REF	ALS	2023-08-10	WP2319111-008													
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007													
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007													
CR-REF	ALS	2023-09-02	WP2322077-003	0.00012	0.00076	<0.00010	0.00025	90.5	0.00132	0.00189	<0.0010	<0.0010		<0.0010		
CR-REF	ALS	2023-10-10	WP2326292-009	0.00017	0.00083	<0.00010	0.00023	84.7	0.00145	0.00206	<0.0010	<0.0010		<0.0010		
CR-REF	ALS	2023-10-10	WP2326292-008	0.00018	0.00059	<0.00010	0.00017	84.2	0.00139	0.00168	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007													
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007													
CR-REF	ALS	2023-11-02	WP2328687	0.00024	<0.00010	0.00011	<0.00010	95.8	0.00148	0.00143	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009													
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009													
CR-REF	ALS	2023-11-02	WP2328687-003													
CR-REF	ALS	2023-12-08	WP2332240	<0.00010	0.00022	<0.00010	<0.00010	85.6	0.00121	0.00139	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006													
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005													
CR-REF	ALS	2023-12-08	WP2332240-001													
CR-REF	ALS	2024-01-16	WP2401461	<0.00050	<0.00050	<0.00010	<0.00010	88.6	0.00131	0.00139	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001													
CR-REF	ALS	2024-01-16	WP2401461-003	0.00017	0.00028											
CR-REF	ALS	2024-01-24	WP2401958	<0.00050	<0.00050	<0.00010	<0.00010	89.6	0.00136	0.00156	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002													
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001													
CR-REF	ALS	2024-01-24	WP2401958-001	0.00011	0.00024											
CR-REF	ALS	2024-02-10	WP2403349	0.00013	0.00026	<0.00010	<0.00010	82.8	0.00134	0.00162	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009												
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008												
CR-REF	SGS	2022-08-09	CA15226-AUG22	34.2	35.2	0.119	0.163	0.00011	0.00019			2.57	2.62	0.00882	0.0095
CR-REF	SGS	2022-09-14													
CR-REF	SGS	2022-09-14	CA15266-SEP22	32.3	32.2	0.133	0.148	< 0.00009	0.0001			2.18	2.22	0.00803	0.00831
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011												
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011												
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003												
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003												
CR-REF	SGS	2022-11-07	CA15216-NOV22	30.9	32.8	0.064	0.063	< 0.00009	< 0.00009			2	2.13	0.00193	0.0016
CR-REF	SGS	2023-01-23	CA15070-FEB23	31.5	33.4	0.034	0.144	< 0.00009	0.00011			2.22	2.35	0.00102	0.00568
CR-REF	SGS	2023-02-07	CA15283-FEB23	34.3	39.7	0.036	0.109	< 0.00009	< 0.00009			2.28	2.67	0.00094	0.00402
CR-REF	SGS	2023-03-30	CA15003-APR23	36.8	38.4	0.056	0.458	< 0.00009	0.00046			2.48	2.66	0.00128	0.0239
CR-REF	SGS	2023-04-20	CA15419-APR23	39.2	41.8	0.194	1.01	0.0002	0.00058			2.95	3.21	0.00307	0.0187
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007												
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007												
CR-REF	ALS	2023-05-30	WP2310312-001	36.8	34.6	0.037	0.251	<0.000050	0.000103	0.0017	0.0016	2.39	2.46	0.00212	0.0094
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001												
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001												
CR-REF	ALS	2023-06-11	WP2311825-003	34.5	34.6	0.038	0.306	<0.000050	0.000127	0.0013	0.0019	2.61	2.51	0.00324	0.0123
CR-REF	ALS	2023-07-16	WP2316171	40.8	41.4	0.034	0.659	<0.000050	0.000335	0.0016	0.0032	2.87	2.95	0.00218	0.0189
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006												
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008												
CR-REF	ALS	2023-07-16	WP2316171-002												
CR-REF	ALS	2023-08-10	WP2319111	38.5	40.9	0.027	0.326	<0.000050	0.00016	0.0012	0.0015	2.44	3.09	0.00481	0.0228
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015												
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018												
CR-REF	ALS	2023-08-10	WP2319111-008												
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007												
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007												
CR-REF	ALS	2023-09-02	WP2322077-003	41.4	37.7	0.028	0.406	<0.000050	0.000222	0.0018	0.0021	3.03	2.97	0.00307	0.0234
CR-REF	ALS	2023-10-10	WP2326292-009	36.8	38.7	0.073	0.449	<0.000050	0.000245	<0.0010	0.0014	2.68	2.97	0.00332	0.0131
CR-REF	ALS	2023-10-10	WP2326292-008	36.7	38	0.072	0.284	<0.000050	0.00013	<0.0010	0.0014	2.67	2.74	0.00314	0.0101
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007												
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007												
CR-REF	ALS	2023-11-02	WP2328687	36.3	37.3	0.141	0.044	0.000086	<0.000050	0.0011	0.0013	2.5	2.64	0.00592	0.00117
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009												
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009												
CR-REF	ALS	2023-11-02	WP2328687-003												
CR-REF	ALS	2023-12-08	WP2332240	36.6	38.2	0.03	0.095	<0.000050	<0.000050	0.0019	0.0021	2.64	2.72	0.00088	0.0049
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006												
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005												
CR-REF	ALS	2023-12-08	WP2332240-001												
CR-REF	ALS	2024-01-16	WP2401461	35.6	36.2	0.022	0.072	<0.000050	<0.000050	0.0015	0.0021	2.59	2.54	0.00125	0.00373
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001												
CR-REF	ALS	2024-01-16	WP2401461-003												
CR-REF	ALS	2024-01-24	WP2401958	37.7	37.5	0.022	0.074	<0.000050	<0.000050	0.001	0.0018	2.6	2.55	0.00138	0.00408
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002												
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001												
CR-REF	ALS	2024-01-24	WP2401958-001												
CR-REF	ALS	2024-02-10	WP2403349	36.4	34.7	0.023	0.067	<0.000050	0.000118	0.0018	<0.0010	2.53	2.62	0.00306	0.00491
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009				0.89								
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008		0.058										
CR-REF	SGS	2022-08-09	CA15226-AUG22			< 0.00001		0.00018	0.00022	0.0014	0.0015	< 0.06	< 0.06	< 0.03	
CR-REF	SGS	2022-09-14													
CR-REF	SGS	2022-09-14	CA15266-SEP22			< 0.00001		0.00017	0.0002	0.0012	0.0012	< 0.06	< 0.06	< 0.03	
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011				0.94								
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011		0.031										
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003				3.05								
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003		0.036										
CR-REF	SGS	2022-11-07	CA15216-NOV22	< 0.00001		< 0.00001		0.00024	0.00023	0.0013	0.0014	< 0.06	< 0.06	< 0.03	
CR-REF	SGS	2023-01-23	CA15070-FEB23	< 0.00001		< 0.00001		0.00022	0.00024	0.0011	0.0012	0.07	0.07	< 0.03	
CR-REF	SGS	2023-02-07	CA15283-FEB23	< 0.00001		< 0.00001		0.00022	0.00025	0.001	0.0014	0.07	0.07	< 0.03	
CR-REF	SGS	2023-03-30	CA15003-APR23	< 0.00001		< 0.00001		0.00014	0.00019	0.0013	0.0028	0.08	0.08	< 0.03	
CR-REF	SGS	2023-04-20	CA15419-APR23	< 0.00001		< 0.00001		0.00023	0.00023	0.0016	0.0025	0.31	0.31	< 0.03	
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007				1.3								
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007		0.033										
CR-REF	ALS	2023-05-30	WP2310312-001	<0.0000050		<0.0000050		0.000171	0.000181	0.00097	0.00125	<0.0050	<0.0051	<0.0010	
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001		0.04										
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001				1.16								
CR-REF	ALS	2023-06-11	WP2311825-003	<0.0000050		<0.0000050		0.00018	0.000184	0.00105	0.00146	<0.0050	<0.0051	<0.0010	
CR-REF	ALS	2023-07-16	WP2316171	<0.0000050		<0.0000050		0.000263	0.000291	0.00114	0.00215	<0.0050	<0.0051	0.0012	
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006				2.7								
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008		0.064										
CR-REF	ALS	2023-07-16	WP2316171-002												
CR-REF	ALS	2023-08-10	WP2319111	<0.0000050		<0.0000050		0.000236	0.00024	0.00101	0.00154	<0.0050	<0.0051	<0.0010	
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015				0.9								
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018		0.053										
CR-REF	ALS	2023-08-10	WP2319111-008												
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007				1.08								
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007		0.059										
CR-REF	ALS	2023-09-02	WP2322077-003	<0.0000050		<0.0000050		0.000223	0.000258	0.00111	0.00176	<0.0050	<0.0051	<0.0010	
CR-REF	ALS	2023-10-10	WP2326292-009	<0.0000050		<0.0000050		0.000202	0.000216	0.00131	0.00183	0.0722	0.0739	0.0017	
CR-REF	ALS	2023-10-10	WP2326292-008	<0.0000050		<0.0000050		0.000204	0.000244	0.0013	0.00161	0.0746	0.0762	0.0016	
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007				0.88								
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007		0.029										
CR-REF	ALS	2023-11-02	WP2328687	<0.0000050		<0.0000050		0.000172	0.000197	0.00138	0.00126	0.0074	0.0074	<0.0010	
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009				0.75								
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009		0.031										
CR-REF	ALS	2023-11-02	WP2328687-003												
CR-REF	ALS	2023-12-08	WP2332240	<0.0000050		<0.0000050		0.000189	0.000171	0.0013	0.00133	0.0354	0.0354	<0.0010	
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006				0.52								
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005		0.024										
CR-REF	ALS	2023-12-08	WP2332240-001												
CR-REF	ALS	2024-01-16	WP2401461	<0.0000050		<0.0000050		0.000163	0.000206	0.00115	0.00116	0.069	0.07	0.001	
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001		0.019										
CR-REF	ALS	2024-01-16	WP2401461-003												
CR-REF	ALS	2024-01-24	WP2401958	<0.0000050		<0.0000050		0.00017	0.00018	0.00121	0.00133	0.0791	0.0805	0.0014	
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002				0.52								
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001				0.53								
CR-REF	ALS	2024-01-24	WP2401958-001												
CR-REF	ALS	2024-02-10	WP2403349	<0.0000050		<0.0000050		0.000176	0.00019	0.00114	0.00132	0.327	0.33	0.0029	
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006				1.35								

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009												
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008												
CR-REF	SGS	2022-08-09	CA15226-AUG22	< 0.003			0.023	1	1.01				0.00009	0.0001	
CR-REF	SGS	2022-09-14													
CR-REF	SGS	2022-09-14	CA15266-SEP22	0.006			0.016	0.913	0.912				0.00011	0.00009	1.31
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011												
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011												
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003												
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003												
CR-REF	SGS	2022-11-07	CA15216-NOV22	0.012			0.012	0.812	0.849	<0.005			0.00032	0.00036	1.08
CR-REF	SGS	2023-01-23	CA15070-FEB23	0.018			0.029	0.984	1.05				< 0.00004	0.00009	1.37
CR-REF	SGS	2023-02-07	CA15283-FEB23	0.029			0.037	0.97	1.15				0.00012	0.00009	1.35
CR-REF	SGS	2023-03-30	CA15003-APR23	0.026			0.076	1.02	1.08				< 0.00004	0.00074	1.62
CR-REF	SGS	2023-04-20	CA15419-APR23	0.019			0.053	1.58	1.73				0.00009	0.00013	3.28
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007												
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007												
CR-REF	ALS	2023-05-30	WP2310312-001	<0.030		0.02	<0.030	1.08	1.01		0.00145	0.00183	0.000069	0.00011	1.04
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001												
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001												
CR-REF	ALS	2023-06-11	WP2311825-003	<0.030		0.0212	<0.030	0.929	0.991		0.00156	0.0021	0.000107	0.000076	1.18
CR-REF	ALS	2023-07-16	WP2316171	<0.030	0.039	0.0482	<0.050	1.01	1.1		0.00179	0.003	0.000092	0.000126	1.53
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006												
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008												
CR-REF	ALS	2023-07-16	WP2316171-002				0.039								
CR-REF	ALS	2023-08-10	WP2319111	<0.030	0.036	0.0413	<0.050	0.928	1.09		0.00167	0.00245	0.0001	0.00012	1.78
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015												
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018												
CR-REF	ALS	2023-08-10	WP2319111-008				0.036								
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007												
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007												
CR-REF	ALS	2023-09-02	WP2322077-003	<0.030		0.0105	0.037	1.05	1.15		0.00177	0.00269	0.000104	0.000078	2.17
CR-REF	ALS	2023-10-10	WP2326292-009	<0.030		0.0343	<0.030	1.02	1.15		0.00154	0.00235	0.000135	0.000119	2.31
CR-REF	ALS	2023-10-10	WP2326292-008	<0.030		0.0271	0.031	1	1.04		0.00156	0.00211	0.000099	0.000101	2.3
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007												
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007												
CR-REF	ALS	2023-11-02	WP2328687	<0.030	<0.030	0.0293	<0.050	1.02	0.971		0.00165	0.00151	0.000091	0.000103	1.82
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009												
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009												
CR-REF	ALS	2023-11-02	WP2328687-003				<0.030								
CR-REF	ALS	2023-12-08	WP2332240	<0.030	<0.030	0.019	<0.050	0.986	1.02		0.00158	0.00172	0.000106	0.000107	1.67
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006												
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005												
CR-REF	ALS	2023-12-08	WP2332240-001				<0.030								
CR-REF	ALS	2024-01-16	WP2401461	<0.050	<0.030	0.02	<0.050	0.988	1.02		0.0015	0.0016	0.000083	0.000088	1.48
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001												
CR-REF	ALS	2024-01-16	WP2401461-003	<0.030			<0.03								
CR-REF	ALS	2024-01-24	WP2401958	<0.050	<0.030	0.0204	<0.050	0.992	1.06		0.0016	0.00182	0.000106	0.000101	1.47
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002												
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001												
CR-REF	ALS	2024-01-24	WP2401958-001	<0.030			<0.03								
CR-REF	ALS	2024-02-10	WP2403349	<0.030	<0.030	0.0175	<0.050	0.987	0.948		0.00142	0.00143	0.000139	0.000222	1.38
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009													
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008													
CR-REF	SGS	2022-08-09	CA15226-AUG22		< 0.00005	< 0.00005	2.4	2.51	86	< 2	0.0276	0.0285			5	
CR-REF	SGS	2022-09-14														
CR-REF	SGS	2022-09-14	CA15266-SEP22	1.38	< 0.00005	< 0.00005	2.12	2.09	49	6	0.0277	0.0273	2	2	6	
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011													
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011													
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003													
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003													
CR-REF	SGS	2022-11-07	CA15216-NOV22	1.16	< 0.00005	< 0.00005	1.72	1.83	100	33	0.03	0.0317	2	2	4	
CR-REF	SGS	2023-01-23	CA15070-FEB23	1.69	< 0.00005	< 0.00005	2.06	2.06	63	4	0.0281	0.0304	2	2	7	
CR-REF	SGS	2023-02-07	CA15283-FEB23	1.54	< 0.00005	< 0.00005	2.29	2.58	51	2	0.0285	0.033	2	2	7	
CR-REF	SGS	2023-03-30	CA15003-APR23	4.09	< 0.00005	< 0.00005	2.34	2.4	37	58	0.0284	0.0307	2	2	6	
CR-REF	SGS	2023-04-20	CA15419-APR23	4.62	< 0.00005	< 0.00005	1.78	1.97	91	11	0.0272	0.0297	< 1	1	6	
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007													
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007													
CR-REF	ALS	2023-05-30	WP2310312-001	1.52	<0.000010	<0.000010	2.91	2.16	52.6	4.1	0.0271	0.0267	1.54	1.5	4.18	<0.00020
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001													
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001													
CR-REF	ALS	2023-06-11	WP2311825-003	1.66	<0.000010	<0.000010	2.17	2.32	51.8	6.2	0.0279	0.0254	1.77	1.54	4.25	<0.00020
CR-REF	ALS	2023-07-16	WP2316171	2.56	<0.000010	<0.000010	2.3	2.36	61.7	25	0.0297	0.0334	1.96	1.73	4.89	<0.00020
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006													
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008													
CR-REF	ALS	2023-07-16	WP2316171-002													
CR-REF	ALS	2023-08-10	WP2319111	2.4	<0.000010	<0.000010	2.02	2.38	75.7	15.2	0.0305	0.0304	1.76	1.52	4.6	<0.00020
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015													
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018													
CR-REF	ALS	2023-08-10	WP2319111-008													
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007													
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007													
CR-REF	ALS	2023-09-02	WP2322077-003	2.77	<0.000010	<0.000010	2.3	2.47	68.3	11.9	0.029	0.0325	1.92	1.64	4.31	<0.00020
CR-REF	ALS	2023-10-10	WP2326292-009	3.07	<0.000010	<0.000010	2.36	2.39	62.6	17.4	0.0296	0.0291	1.79	1.6	4.5	<0.00020
CR-REF	ALS	2023-10-10	WP2326292-008	2.85	<0.000010	<0.000010	2.27	2.34	62.9	5	0.0274	0.0292	1.91	1.76	4.51	<0.00020
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007													
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007													
CR-REF	ALS	2023-11-02	WP2328687	1.64	<0.000010	<0.000010	2.24	2.38	58.2	5	0.0286	0.0289	1.74	1.79	4.88	<0.00020
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009													
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009													
CR-REF	ALS	2023-11-02	WP2328687-003													
CR-REF	ALS	2023-12-08	WP2332240	1.89	<0.000010	<0.000010	2.35	2.41	55.2	2.4	0.0298	0.0306	2.08	2.06	5.26	<0.00020
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006													
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005													
CR-REF	ALS	2023-12-08	WP2332240-001													
CR-REF	ALS	2024-01-16	WP2401461	1.61	<0.000010	<0.000010	2.66	2.53	60.6	2.8	0.0283	0.0292	2.13	2.02	6.3	<0.00020
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001													
CR-REF	ALS	2024-01-16	WP2401461-003													
CR-REF	ALS	2024-01-24	WP2401958	1.71	<0.000010	<0.000010	2.56	2.62	68.7	1.6	0.029	0.0289	2.14	2.28	5.76	<0.00020
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002													
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001													
CR-REF	ALS	2024-01-24	WP2401958-001													
CR-REF	ALS	2024-02-10	WP2403349	1.51	<0.000010	<0.000010	2.56	2.63	59.7	1.2	0.0261	0.0265	2.09	2.37	5.64	<0.00020
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009													
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008													
CR-REF	SGS	2022-08-09	CA15226-AUG22		< 0.000005	< 0.000005			< 0.00006	0.00017	0.00436	0.00652	11	0.00002	0.00005	0.000071
CR-REF	SGS	2022-09-14														
CR-REF	SGS	2022-09-14	CA15266-SEP22		< 0.000005	< 0.000005			< 0.00006	0.00006	0.00675	0.00495	11	0.00002	0.00002	0.000074
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011													
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011													
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003													
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003													
CR-REF	SGS	2022-11-07	CA15216-NOV22		< 0.000005	< 0.000005			< 0.00006	0.00007	0.00107	0.00079	12	< 0.00002	0.00004	0.000143
CR-REF	SGS	2023-01-23	CA15070-FEB23		< 0.000005	< 0.000005			< 0.00006	0.00009	0.00082	0.00448	11	< 0.00002	< 0.00002	0.000101
CR-REF	SGS	2023-02-07	CA15283-FEB23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00026	0.00267	11	< 0.00002	0.00002	0.000087
CR-REF	SGS	2023-03-30	CA15003-APR23		< 0.000005	0.000007			< 0.00006	0.00012	0.00051	0.0112	9	0.00003	0.00005	0.000101
CR-REF	SGS	2023-04-20	CA15419-APR23		< 0.000005	0.000013			< 0.00006	0.00008	0.00935	0.0418	12	< 0.00002	< 0.00002	0.00014
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007													
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007													
CR-REF	ALS	2023-05-30	WP2310312-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00036	0.0102		<0.00010	<0.00010	0.000071
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001													
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001													
CR-REF	ALS	2023-06-11	WP2311825-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00042	0.0125		<0.00010	<0.00010	0.000104
CR-REF	ALS	2023-07-16	WP2316171	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00069	0.0279		<0.00010	<0.00010	0.000137
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006													
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008													
CR-REF	ALS	2023-07-16	WP2316171-002													
CR-REF	ALS	2023-08-10	WP2319111	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00063	0.014		<0.00010	<0.00010	0.000156
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015													
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018													
CR-REF	ALS	2023-08-10	WP2319111-008													
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007													
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007													
CR-REF	ALS	2023-09-02	WP2322077-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00074	0.019		<0.00010	<0.00010	0.000176
CR-REF	ALS	2023-10-10	WP2326292-009	<0.00020	<0.000010	<0.000010	<0.00010	0.0001	<0.00010	<0.00010	0.00135	0.0182		<0.00010	<0.00010	0.000109
CR-REF	ALS	2023-10-10	WP2326292-008	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00144	0.0102		<0.00010	<0.00010	0.000107
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007													
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007													
CR-REF	ALS	2023-11-02	WP2328687	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00538	0.00059		<0.00010	<0.00010	0.000088
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009													
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009													
CR-REF	ALS	2023-11-02	WP2328687-003													
CR-REF	ALS	2023-12-08	WP2332240	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00314		<0.00010	<0.00010	0.000077
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006													
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005													
CR-REF	ALS	2023-12-08	WP2332240-001													
CR-REF	ALS	2024-01-16	WP2401461	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00228		<0.00010	<0.00010	0.000077
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001													
CR-REF	ALS	2024-01-16	WP2401461-003													
CR-REF	ALS	2024-01-24	WP2401958	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00212		<0.00010	<0.00010	0.000078
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002													
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001													
CR-REF	ALS	2024-01-24	WP2401958-001													
CR-REF	ALS	2024-02-10	WP2403349	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00171		<0.00010	<0.00010	0.000078
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
CR-REF	Flett	2022-08-09	TMWATR091622ZB1-009									
CR-REF	Flett	2022-08-09	MTWATR092022JS1-008									
CR-REF	SGS	2022-08-09	CA15226-AUG22	0.000088	0.00054	0.00061	0.00012	0.00012	< 0.002	< 0.002		
CR-REF	SGS	2022-09-14										
CR-REF	SGS	2022-09-14	CA15266-SEP22	0.000077	0.00045	0.00048	0.0001	0.0001	< 0.002	< 0.002	< 0.002	< 0.002
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-011									
CR-REF	Flett	2022-10-12	MTWATR110722JS1-011									
CR-REF	Flett	2022-10-12	TMWATR111022ZB3-003									
CR-REF	Flett	2022-10-12	MTWATR110722JS1-003									
CR-REF	SGS	2022-11-07	CA15216-NOV22	0.000153	0.00034	0.00032	0.00009	0.0001	< 0.002	< 0.002	< 0.002	< 0.002
CR-REF	SGS	2023-01-23	CA15070-FEB23	0.000117	0.00027	0.00047	0.00007	0.00012	0.004	0.003	< 0.002	< 0.002
CR-REF	SGS	2023-02-07	CA15283-FEB23	0.000101	0.00025	0.00043	0.00007	0.00009	0.002	0.003	< 0.002	< 0.002
CR-REF	SGS	2023-03-30	CA15003-APR23	0.000223	0.00024	0.00082	0.00007	0.00042	< 0.002	0.004	< 0.002	< 0.002
CR-REF	SGS	2023-04-20	CA15419-APR23	0.000179	0.00081	0.00211	0.00036	0.00051	< 0.002	0.004	< 0.002	< 0.002
CR-REF	Flett	2023-05-30	TMWATR060923ZB1-007									
CR-REF	Flett	2023-05-30	MTWATR060823JS1-007									
CR-REF	ALS	2023-05-30	WP2310312-001	0.000105	<0.00050	0.0008			<0.0010	<0.0030	<0.00030	0.00022
CR-REF	Flett	2023-06-11	MTWATR062123JS3-001									
CR-REF	Flett	2023-06-11	TMWATR062023ZB1-001									
CR-REF	ALS	2023-06-11	WP2311825-003	0.000112	<0.00050	0.00093			<0.0010	<0.0030	<0.00030	0.00024
CR-REF	ALS	2023-07-16	WP2316171	0.000214	0.00052	0.00168			<0.0010	<0.0030	<0.00030	0.00035
CR-REF	Flett	2023-07-16	TMWATR080423ZB1-006									
CR-REF	Flett	2023-07-16	MTWATR080223JS1-008									
CR-REF	ALS	2023-07-16	WP2316171-002									
CR-REF	ALS	2023-08-10	WP2319111	0.000181	0.00055	0.00118			<0.0010	<0.0030	<0.00030	0.00025
CR-REF	Flett	2023-08-10	TMWATR082323ZB1-015									
CR-REF	Flett	2023-08-10	MTWATR082323JS1-018									
CR-REF	ALS	2023-08-10	WP2319111-008									
CR-REF	Flett	2023-09-02	TMWATR091823ZB1-007									
CR-REF	Flett	2023-09-02	MTWATR091323JS2-007									
CR-REF	ALS	2023-09-02	WP2322077-003	0.000187	<0.00050	0.00139			<0.0010	<0.0030	<0.00030	0.00032
CR-REF	ALS	2023-10-10	WP2326292-009	0.000143	<0.00050	0.00127			<0.0010	<0.0030	<0.00030	0.00032
CR-REF	ALS	2023-10-10	WP2326292-008	0.000121	<0.00050	0.00097			<0.0010	<0.0030	<0.00030	0.00034
CR-REF	Flett	2023-10-18	TMWATR110223ZB1-007									
CR-REF	Flett	2023-10-18	MTWATR111923JS1-007									
CR-REF	ALS	2023-11-02	WP2328687	0.000086	0.00051	<0.00050			0.0011	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2023-11-02	TMWATR110923ZB2-009									
CR-REF	Flett	2023-11-02	MTWATR112023JS1-009									
CR-REF	ALS	2023-11-02	WP2328687-003									
CR-REF	ALS	2023-12-08	WP2332240	0.00009	<0.00050	0.00063			0.0011	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2023-12-08	TMWATR121923ZB1-006									
CR-REF	Flett	2023-12-08	MTWATR122023JS1-005									
CR-REF	ALS	2023-12-08	WP2332240-001									
CR-REF	ALS	2024-01-16	WP2401461	0.000085	<0.00050	<0.00050			0.0038	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2024-01-16	MTWATR020924JS1-001									
CR-REF	ALS	2024-01-16	WP2401461-003									
CR-REF	ALS	2024-01-24	WP2401958	0.000085	<0.00050	<0.00050			0.0014	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2024-01-24	TMWATR013124JS1-002									
CR-REF	Flett	2024-01-24	TMWATR013124JS1-001									
CR-REF	ALS	2024-01-24	WP2401958-001									
CR-REF	ALS	2024-02-10	WP2403349	0.000087	<0.00050	<0.00050			0.0052	0.0047	<0.00030	<0.00020
CR-REF	Flett	2024-02-10	TMWATR022824CH1-006									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005											
CR-REF	ALS	2024-02-10	WP2403349-008											
CR-REF	ALS	2024-03-08	WP2405786	7.9	7.38	0.2	3	31.9	<1.0	<1.0	<1.0	31.9	0.0045	0.0402
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004											
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005											
CR-REF	ALS	2024-03-08	WP2405786-005											
CR-REF	ALS	2024-04-03	WP2407826	7.05	7.41	<0.10	<2.0	33.2	<1.0	<1.0	<1.0	33.2	0.0058	0.0453
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004											
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004											
CR-REF	ALS	2024-04-03	WP2407826-001											
CR-REF	ALS	2024-05-20	WP2412615	7.62	7.32	12.3	<2.0	28.7	<1.0	<1.0	<1.0	28.7	0.0239	0.21
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011											
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011											
CR-REF	ALS	2024-06-17	WP2415380	7.24	7.39	19.8	<2.0	26.8	<1.0	<1.0	<1.0	26.8	0.0392	0.118
CR-REF	Flett	2024-06-17	TMWATR070224CH1											
CR-REF	ALS	2024-07-07	WP2416896	7.2	7.46	21.3	<2.0	27	<1.0	<1.0	<1.0	27	0.0227	0.102
CR-REF	Flett	2024-07-07	TMWATR072524CH2											
CR-REF	Flett	2024-07-07	MTWATR072424JS2											
CR-REF	ALS	2024-08-06	WP2419247	7.66	7.57	24.2	<2.0	32.7	<1.0	<1.0	<1.0	32.7	0.0228	0.136
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006											
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006											
CR-REF	ALS	2024-09-08	WP2421728	8.44	7.67	17	2.6	28.9	<1.0	<1.0	<1.0	28.9	0.0104	0.153
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002											
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002											
CR-REF	ALS	2024-10-06	WP2423572	7.22	7.46	7.4	<2.0	31.3	<1.0	<1.0	<1.0	31.3	0.0268	1.04
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006											
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014											
CR-REF	ALS	2024-11-06	WP2425806	6.9	7.57	3.65	<2.0	35.9	<1.0	<1.0	<1.0	35.9	0.0182	0.141
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018											
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018											
CR-REF	ALS	2024-12-02	WP2426974	7.56	7.37	0.3	2.3	31.8	<1.0	<1.0	<1.0	31.8	0.0351	0.131
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006											
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006											
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22		7.11		<2					21		0.322
DC-DS	ALS	2023-10-07	WP2325933-001	6.16	7.47	10.8	2.6	56.7	<1.0	<1.0	<1.0	56.7	0.0319	0.126
DC-US	SGS	2022-04-26	CA15019-MAY22		7.03		< 2					14		0.2
DC-US	SGS	2022-08-03	CA12288-AUG22	8.1	7.46	21.8	<2					26		0.214
DC-US	SGS	2022-08-31	CA12196-SEP22	7.14	7.2	19.7	< 2					28		0.127
DC-US	SGS	2022-09-12	CA15263-SEP22	6.93	7.2	17	< 2					30	0.06	0.139
DC-US	SGS	2023-01-30	CA15070-FEB23	6.99	6.93	0.19	< 2					39		0.206
DC-US	SGS	2023-02-07	CA15283-FEB23	1.26	7.46	7.03	< 2					44		0.112
DC-US	SGS	2023-03-23	CA13921-MAR23	6.84	6.77	2.4	< 2					45	0.124	0.226
DC-US	ALS	2023-05-29	WP2310321-004	7.51	7.55	21.8	3.5	33.3	<1.0	<1.0	<1.0	33.3	0.0629	0.161
DC-US	ALS	2023-08-10	WP2319115-003	7.17	7.31	20.9	4.9	39.1	<1.0	<1.0	<1.0	39.1	0.0318	0.113
DC-US	ALS	2023-08-10	WP2319115-002	7.17	7.32	20.9	2.9	38.6	<1.0	<1.0	<1.0	38.6	0.0378	0.104
DC-US	ALS	2023-10-03	WP2325641-002											
DC-US	ALS	2023-10-03	WP2325641											
DC-US	ALS	2024-02-09	WP2403349	7.51	7.17	0.4	6.1	54	<1.0	<1.0	<1.0	54	0.0388	0.0983
DC-US	ALS	2024-02-09	WP2403349-003											
DC-US	ALS	2024-05-27	WP2413499	7.14	7.4	11.9	<2.0	30.6	<1.0	<1.0	<1.0	30.6	0.078	0.194
DC-US	ALS	2024-08-11	WP2419573	7.51	7.49	19.4	<2.0	31.8	<1.0	<1.0	<1.0	31.8	0.0482	0.118
DC-US	ALS	2024-10-08	WP2424113	7.38	7.6	9.4	<2.0	34.3	<1.0	<1.0	<1.0	34.3	0.039	0.127

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005												
CR-REF	ALS	2024-02-10	WP2403349-008		0.294										
CR-REF	ALS	2024-03-08	WP2405786			<0.0010	0.0163	0.00035	0.00034	0.00807	0.00804	0.00791	0.00767	<0.000020	<0.000020
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004												
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005												
CR-REF	ALS	2024-03-08	WP2405786-005		0.0163										
CR-REF	ALS	2024-04-03	WP2407826			<0.0010	0.0267	0.00035	0.00036	0.00868	0.00894	0.00808	0.00871	<0.000020	<0.000020
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004												
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004												
CR-REF	ALS	2024-04-03	WP2407826-001		0.0267										
CR-REF	ALS	2024-05-20	WP2412615			<0.0010	0.0067	0.00025	0.00028	0.0047	0.00616	0.00594	0.0085	<0.000020	<0.000020
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011												
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011												
CR-REF	ALS	2024-06-17	WP2415380			<0.0010	0.0074	0.00027	0.00027	0.00451	0.00543	0.00732	0.00812	<0.000020	<0.000020
CR-REF	Flett	2024-06-17	TMWATR070224CH1												
CR-REF	ALS	2024-07-07	WP2416896			<0.0010	0.0188	0.00026	0.00036	0.0049	0.00549	0.00723	0.0077	<0.000020	<0.000020
CR-REF	Flett	2024-07-07	TMWATR072524CH2												
CR-REF	Flett	2024-07-07	MTWATR072424JS2												
CR-REF	ALS	2024-08-06	WP2419247			<0.0010	<0.0050	0.00027	0.00029	0.0133	0.0147	0.00781	0.0084	<0.000020	<0.000020
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006												
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006												
CR-REF	ALS	2024-09-08	WP2421728			<0.0010	0.0051	0.00028	0.00031	0.0114	0.014	0.00556	0.008	<0.000020	<0.000020
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002												
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002												
CR-REF	ALS	2024-10-06	WP2423572			<0.0010	0.0168	0.0003	0.00032	0.00877	0.0107	0.00792	0.0183	<0.000020	0.000042
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006												
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014												
CR-REF	ALS	2024-11-06	WP2425806			<0.0010	<0.0050	0.00029	0.00031	0.00657	0.00747	0.00789	0.00877	<0.000020	<0.000020
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018												
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018												
CR-REF	ALS	2024-12-02	WP2426974			<0.0010	0.0228	0.00033	0.00022	0.00712	0.00509	0.00793	0.00629	<0.000020	<0.000020
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006												
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006												
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22	0.096			< 0.1	< 0.0009	< 0.0009	0.0014	0.0017	0.00691	0.00935	0.000013	0.000023
DC-DS	ALS	2023-10-07	WP2325933-001		0.0187	<0.0010		<0.00010	<0.00010	0.00172	0.00193	0.00993	0.0109	<0.000020	<0.000020
DC-US	SGS	2022-04-26	CA15019-MAY22	0.007			0.3	< 0.0009	< 0.0009	0.0006	0.0008	0.0048	0.00681	< 0.000007	0.000008
DC-US	SGS	2022-08-03	CA12288-AUG22	0.059			<0.1	< 0.0009	< 0.0009	0.0027	0.0029	0.00775	0.00868	0.000022	0.000023
DC-US	SGS	2022-08-31	CA12196-SEP22	0.044			< 0.1	< 0.0009	< 0.0009	0.0036	0.0032	0.00965	0.0097	0.000014	0.000022
DC-US	SGS	2022-09-12	CA15263-SEP22	0.045			< 0.1	< 0.0009	< 0.0009	0.0027	0.0026	0.00867	0.00977	0.000016	0.000019
DC-US	SGS	2023-01-30	CA15070-FEB23	0.098			< 0.1	< 0.0009	< 0.0009	0.0021	0.0023	0.0113	0.0129	0.000014	0.000045
DC-US	SGS	2023-02-07	CA15283-FEB23	0.065			< 0.1	< 0.0009	< 0.0009	0.0021	0.0023	0.0108	0.012	0.000014	0.000016
DC-US	SGS	2023-03-23	CA13921-MAR23	0.108			< 0.1	< 0.0009	< 0.0009	0.0021	0.0024	0.0133	0.01544	0.000019	0.000056
DC-US	ALS	2023-05-29	WP2310321-004		<0.010	<0.0010		<0.00010	<0.00010	0.00168	0.00174	0.00845	0.0092	<0.000020	<0.000020
DC-US	ALS	2023-08-10	WP2319115-003		0.033	<0.0010		<0.00010	<0.00010	0.0035	0.0041	0.008	0.00882	<0.000020	<0.000020
DC-US	ALS	2023-08-10	WP2319115-002		0.015	<0.0010		<0.00010	<0.00010	0.00359	0.0041	0.00775	0.00843	<0.000020	<0.000020
DC-US	ALS	2023-10-03	WP2325641-002												
DC-US	ALS	2023-10-03	WP2325641												
DC-US	ALS	2024-02-09	WP2403349			<0.0010	0.05	<0.00010	<0.00010	0.00156	0.00156	0.0116	0.0114	<0.000020	<0.000020
DC-US	ALS	2024-02-09	WP2403349-003		0.05										
DC-US	ALS	2024-05-27	WP2413499			<0.0010	0.0059	<0.00010	<0.00010	0.00155	0.00174	0.00802	0.00827	<0.000020	<0.000020
DC-US	ALS	2024-08-11	WP2419573			<0.0010	0.0153	<0.00010	<0.00010	0.00388	0.00472	0.00738	0.00859	<0.000020	<0.000020
DC-US	ALS	2024-10-08	WP2424113			<0.0010	0.0195	<0.00010	<0.00010	0.0023	0.00251	0.00866	0.00857	<0.000020	<0.000020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005													
CR-REF	ALS	2024-02-10	WP2403349-008													
CR-REF	ALS	2024-03-08	WP2405786	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.9	11.3	12.9	<0.000010	<0.000010		2.78
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004													
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005													
CR-REF	ALS	2024-03-08	WP2405786-005													
CR-REF	ALS	2024-04-03	WP2407826	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.9	11.9	11.7	<0.000010	<0.000010		3.02
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004													
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004													
CR-REF	ALS	2024-04-03	WP2407826-001													
CR-REF	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000071	10.5	10	13	<0.000010	0.000023		2.66
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011													
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011													
CR-REF	ALS	2024-06-17	WP2415380	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000008	10.1	10.1	14.6	<0.000010	0.000016		2.79
CR-REF	Flett	2024-06-17	TMWATR070224CH1													
CR-REF	ALS	2024-07-07	WP2416896	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.86	9.71	15.2	<0.000010	0.000017		2.78
CR-REF	Flett	2024-07-07	TMWATR072524CH2													
CR-REF	Flett	2024-07-07	MTWATR072424JS2													
CR-REF	ALS	2024-08-06	WP2419247	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.8	12.3	14.6	<0.000010	0.000018		2.88
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006													
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006													
CR-REF	ALS	2024-09-08	WP2421728	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000063	11.1	10.7	13.4	<0.000010	0.000024		2.97
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002													
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002													
CR-REF	ALS	2024-10-06	WP2423572	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000218	10.6	12	14.3	<0.000010	0.000138		2.93
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006													
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014													
CR-REF	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.2	12	12.5	<0.000010	0.000016		2.83
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018													
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018													
CR-REF	ALS	2024-12-02	WP2426974	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	6.92	17.9	<0.000010	0.000017		3.26
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006													
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006													
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22	0.00001	< 0.00001	0.005	0.006	0.000007	0.000009	5.87	6.48	18			< 8	1
DC-DS	ALS	2023-10-07	WP2325933-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	15.7	16.8	16	<0.000010	0.000011		0.42
DC-US	SGS	2022-04-26	CA15019-MAY22	< 0.00001	< 0.00001	0.005	0.006	< 0.000003	0.000022	4.34	4.92	7			19	< 1
DC-US	SGS	2022-08-03	CA12288-AUG22	< 0.00001	< 0.00001	0.007	0.006	0.00003	0.000047	7.92	7.87	17			45	< 1
DC-US	SGS	2022-08-31	CA12196-SEP22	< 0.00001	< 0.00001	0.005	0.009	0.00001	0.00001	8.96	8.76	2			59	< 1
DC-US	SGS	2022-09-12	CA15263-SEP22	< 0.00001	0.00001	0.005	0.009	< 0.000003	< 0.000003	8.94	8.95	23			52	< 1
DC-US	SGS	2023-01-30	CA15070-FEB23	< 0.00001	< 0.00001	0.005	0.012	0.000049	0.000056	11.2	12.1	20			63	3
DC-US	SGS	2023-02-07	CA15283-FEB23	< 0.00001	< 0.00001	0.005	0.006	< 0.000004	0.000004	13.2	14.8	19			41	< 1
DC-US	SGS	2023-03-23	CA13921-MAR23	< 0.00001	< 0.00001	0.006	0.006	0.000041	0.000012	15	15.2	23			62	2
DC-US	ALS	2023-05-29	WP2310321-004	<0.000050	<0.000050	<0.010	<0.010	0.0000092	0.000005	9.21	9.93	18.6	<0.000010	0.000013		0.24
DC-US	ALS	2023-08-10	WP2319115-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.2	10.6	20.9	<0.000010	0.000015		0.2
DC-US	ALS	2023-08-10	WP2319115-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000055	11.3	11.1	20.7	<0.000010	0.000012		0.2
DC-US	ALS	2023-10-03	WP2325641-002													
DC-US	ALS	2023-10-03	WP2325641													
DC-US	ALS	2024-02-09	WP2403349	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	15.3	15.2	18.4	<0.000010	<0.000010		0.52
DC-US	ALS	2024-02-09	WP2403349-003													
DC-US	ALS	2024-05-27	WP2413499	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.35	8.97	21	<0.000010	0.000012		0.22
DC-US	ALS	2024-08-11	WP2419573	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000008	9.38	10.4	23.2	<0.000010	<0.000010		0.14
DC-US	ALS	2024-10-08	WP2424113	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000056	9.2	10.2	21.4	<0.000010	<0.000010		0.14

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005													
CR-REF	ALS	2024-02-10	WP2403349-008													
CR-REF	ALS	2024-03-08	WP2405786	0.00016	0.00014	<0.00010	<0.00010	89.8	0.00118	0.0013	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004													
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005													
CR-REF	ALS	2024-03-08	WP2405786-005													
CR-REF	ALS	2024-04-03	WP2407826	<0.00050	0.00067	<0.00010	<0.00010	96	0.00139	0.00175	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004													
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004													
CR-REF	ALS	2024-04-03	WP2407826-001	0.00019	0.00024											
CR-REF	ALS	2024-05-20	WP2412615	0.00014	0.00051	<0.00010	0.00014	82.5	0.00108	0.0016	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011													
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011													
CR-REF	ALS	2024-06-17	WP2415380	0.00016	0.00032	<0.00010	0.00012	81.6	0.0013	0.00159	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-06-17	TMWATR070224CH1													
CR-REF	ALS	2024-07-07	WP2416896	0.00014	0.00029	<0.00010	0.00013	80.3	0.00114	0.00134	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-07-07	TMWATR072524CH2													
CR-REF	Flett	2024-07-07	MTWATR072424JS2													
CR-REF	ALS	2024-08-06	WP2419247	0.00015	0.0004	<0.00010	0.00014	93.1	0.00118	0.00147	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006													
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006													
CR-REF	ALS	2024-09-08	WP2421728	<0.00010	0.00039	<0.00010	0.00014	87	0.00115	0.00148	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002													
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002													
CR-REF	ALS	2024-10-06	WP2423572	0.00014	0.00203	<0.00010	0.00079	90.1	0.00128	0.00303	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006													
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014													
CR-REF	ALS	2024-11-06	WP2425806	0.00014	0.00043	<0.00010	0.00014	97.8	0.00128	0.00181	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018													
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018													
CR-REF	ALS	2024-12-02	WP2426974	0.00091	0.00034	<0.00010	0.0001	91.3	0.00612	0.00115	<0.0010	<0.0010		<0.0010		
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006													
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006													
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22	< 0.00008	0.00054	0.000037	0.00016	47	0.0009	0.0012			< 0.01			< 0.06
DC-DS	ALS	2023-10-07	WP2325933-001	0.00019	0.00038	<0.00010	0.00013	116	0.00052	0.00066	<0.0010	<0.0010		<0.0010		
DC-US	SGS	2022-04-26	CA15019-MAY22	0.00011	0.00034	0.00001	0.000124	38	0.0005	0.0006						< 0.06
DC-US	SGS	2022-08-03	CA12288-AUG22	0.00031	0.00074	0.000063	0.000392	33	0.0012	0.0026			< 0.01			< 0.06
DC-US	SGS	2022-08-31	CA12196-SEP22	0.00057	0.0008	0.000131	0.000135	61	0.001	0.001			< 0.01			0.06
DC-US	SGS	2022-09-12	CA15263-SEP22	0.00034	0.00066	0.000047	0.000117	60	0.0008	0.0009			< 0.01			< 0.06
DC-US	SGS	2023-01-30	CA15070-FEB23	0.00046	0.00065	0.000153	0.000242	26	0.0023	0.0019	< 0.005		< 0.01	< 0.01		0.08
DC-US	SGS	2023-02-07	CA15283-FEB23	0.00051	0.00065	0.000075	0.000116	84	0.001	0.0011	< 0.005		< 0.01	< 0.01		0.08
DC-US	SGS	2023-03-23	CA13921-MAR23	0.00047	0.0016	0.000089	0.000178	147	0.0012	0.0012	< 0.005		< 0.01			0.09
DC-US	ALS	2023-05-29	WP2310321-004	0.00024	0.00057	<0.00010	0.00012	71.5	0.00074	0.00096	<0.0010	0.001		0.001		
DC-US	ALS	2023-08-10	WP2319115-003	0.00018	0.00034	0.0001	0.00021	83.3	0.0006	0.00077	0.0012	0.0019		0.0017		
DC-US	ALS	2023-08-10	WP2319115-002	0.00018	0.00032	0.00011	0.00019	82.3	0.00061	0.00078	<0.0010	0.0012		<0.0010		
DC-US	ALS	2023-10-03	WP2325641-002													
DC-US	ALS	2023-10-03	WP2325641													
DC-US	ALS	2024-02-09	WP2403349	0.00022	0.00034	0.00013	0.00016	114	0.00069	0.00076	<0.0010	<0.0010		<0.0010		
DC-US	ALS	2024-02-09	WP2403349-003													
DC-US	ALS	2024-05-27	WP2413499	0.0003	0.00051	<0.00010	0.00013	64.2	0.00076	0.00094	<0.0010	<0.0010		<0.0010		
DC-US	ALS	2024-08-11	WP2419573	0.0003	0.00048	0.00011	0.00032	66.7	0.00072	0.00083	<0.0010	<0.0010		<0.0010		
DC-US	ALS	2024-10-08	WP2424113	0.0003	0.00046	<0.00010	0.00014	72.8	0.00078	0.00088	<0.0010	<0.0010		<0.0010		

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005												
CR-REF	ALS	2024-02-10	WP2403349-008												
CR-REF	ALS	2024-03-08	WP2405786	37.9	38.9	0.02	0.054	<0.000050	<0.000050	0.0014	0.0016	2.6	2.6	0.00202	0.00369
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004												
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005												
CR-REF	ALS	2024-03-08	WP2405786-005												
CR-REF	ALS	2024-04-03	WP2407826	41.1	41.9	0.023	0.063	<0.000050	0.000054	0.0016	0.0018	2.77	2.95	0.0029	0.0049
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004												
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004												
CR-REF	ALS	2024-04-03	WP2407826-001												
CR-REF	ALS	2024-05-20	WP2412615	36.9	35.8	0.044	0.259	<0.000050	0.000102	0.0017	0.0015	2.6	2.64	0.0016	0.0112
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011												
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011												
CR-REF	ALS	2024-06-17	WP2415380	35.8	36.2	0.056	0.166	<0.000050	0.000098	0.0017	0.0016	2.56	2.68	0.00313	0.0083
CR-REF	Flett	2024-06-17	TMWATR070224CH1												
CR-REF	ALS	2024-07-07	WP2416896	34.7	35	0.055	0.172	<0.000050	0.000104	0.0019	0.001	2.45	2.61	0.00302	0.0116
CR-REF	Flett	2024-07-07	TMWATR072524CH2												
CR-REF	Flett	2024-07-07	MTWATR072424JS2												
CR-REF	ALS	2024-08-06	WP2419247	39.9	42.4	0.042	0.179	<0.000050	0.000108	0.0015	0.0022	2.53	2.84	0.00302	0.0134
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006												
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006												
CR-REF	ALS	2024-09-08	WP2421728	38.7	36.6	0.021	0.175	<0.000050	0.000109	0.0025	0.0019	2.66	2.4	0.00136	0.0119
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002												
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002												
CR-REF	ALS	2024-10-06	WP2423572	37.5	42.8	0.062	1.2	<0.000050	0.000873	0.0011	0.0036	2.69	3.13	0.00283	0.0495
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006												
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014												
CR-REF	ALS	2024-11-06	WP2425806	42.8	43.5	0.057	0.206	<0.000050	0.000089	0.0012	0.0019	3.01	3.28	0.00301	0.0107
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018												
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018												
CR-REF	ALS	2024-12-02	WP2426974	38.9	25	0.064	0.159	<0.000050	0.000095	0.0016	<0.0010	2.54	1.88	0.00275	0.00579
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006												
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006												
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22	21.7	23.6	0.235	0.566	< 0.00009	0.00021	0.0011	0.0014	1.72	1.81	0.00111	0.0243
DC-DS	ALS	2023-10-07	WP2325933-001	56.4	60.5	0.175	0.318	<0.000050	0.000086	0.0016	0.002	4.18	4.5	0.0141	0.0213
DC-US	SGS	2022-04-26	CA15019-MAY22	15.4	17.7	0.018	0.217	< 0.00009	0.00027	0.0006	0.0007	1.11	1.32	0.00036	0.0138
DC-US	SGS	2022-08-03	CA12288-AUG22	30.3	30	0.333	0.619	< 0.00009	0.00051	0.0017	0.0017	2.56	2.51	0.00192	0.0287
DC-US	SGS	2022-08-31	CA12196-SEP22	32.9	32.2	0.58	0.602	0.00013	0.00022			2.55	2.52	0.0268	0.0264
DC-US	SGS	2022-09-12	CA15263-SEP22	32.7	33	0.381	0.552	< 0.00009	0.00015			2.52	2.58	0.00303	0.0216
DC-US	SGS	2023-01-30	CA15070-FEB23	42.6	46.1	0.483	0.761	0.00018	0.00026			3.53	3.84	0.0348	0.0461
DC-US	SGS	2023-02-07	CA15283-FEB23	48.4	54.1	0.509	0.645	0.00015	0.00017			3.73	4.17	0.0172	0.0274
DC-US	SGS	2023-03-23	CA13921-MAR23	56.2	56.4	0.619	0.917	0.0001	0.00023			4.52	4.48	0.0348	0.0543
DC-US	ALS	2023-05-29	WP2310321-004	34.8	37.6	0.321	0.492	0.00008	0.000141	<0.0010	0.0015	2.88	3.11	0.0079	0.0194
DC-US	ALS	2023-08-10	WP2319115-003	40.4	40.8	0.24	0.622	<0.000050	0.000086	0.0013	0.0013	3.03	3.48	0.0154	0.0576
DC-US	ALS	2023-08-10	WP2319115-002	40.8	42	0.254	0.512	<0.000050	0.000079	0.0015	0.0015	3.05	3.46	0.0141	0.049
DC-US	ALS	2023-10-03	WP2325641-002												
DC-US	ALS	2023-10-03	WP2325641												
DC-US	ALS	2024-02-09	WP2403349	56.4	55.7	0.275	0.386	0.000056	0.000087	0.0018	0.002	4.43	4.32	0.0429	0.0476
DC-US	ALS	2024-02-09	WP2403349-003												
DC-US	ALS	2024-05-27	WP2413499	31.6	34.5	0.302	0.516	0.000084	0.000128	<0.0010	0.0018	2.61	2.95	0.00724	0.0121
DC-US	ALS	2024-08-11	WP2419573	34.8	38.2	0.366	0.851	0.000088	0.00014	<0.0010	0.002	2.77	2.97	0.0064	0.0476
DC-US	ALS	2024-10-08	WP2424113	35	38	0.287	0.432	0.000123	0.00018	<0.0010	0.0017	2.92	3.04	0.00526	0.0104

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005		0.028										
CR-REF	ALS	2024-02-10	WP2403349-008												
CR-REF	ALS	2024-03-08	WP2405786	<0.0000050		<0.0000050		0.00021	0.000189	0.00114	0.00121	0.0913	0.0913	<0.0010	
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004				0.55								
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005		0.025										
CR-REF	ALS	2024-03-08	WP2405786-005												
CR-REF	ALS	2024-04-03	WP2407826	<0.0000050		<0.0000050		0.000201	0.000206	0.00122	0.00136	0.0975	0.0975	<0.0010	
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004				0.71								
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004		0.034										
CR-REF	ALS	2024-04-03	WP2407826-001												
CR-REF	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000173	0.000174	0.00108	0.00145	0.0056	0.0056	<0.0010	
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011				1.56								
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011		0.037										
CR-REF	ALS	2024-06-17	WP2415380	<0.0000050		<0.0000050		0.000161	0.000162	0.00107	0.00136	<0.0050	<0.0051	<0.0010	<0.030
CR-REF	Flett	2024-06-17	TMWATR070224CH1				2.08								
CR-REF	ALS	2024-07-07	WP2416896	<0.0000050		<0.0000050		0.000123	0.000185	0.00107	0.0012	<0.0050	<0.0051	<0.0010	
CR-REF	Flett	2024-07-07	TMWATR072524CH2				1.75								
CR-REF	Flett	2024-07-07	MTWATR072424JS2		0.081										
CR-REF	ALS	2024-08-06	WP2419247	<0.0000050		<0.0000050		0.000219	0.000234	0.00113	0.00141	<0.0050	<0.0051	<0.0010	
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006				0.83								
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006		0.051										
CR-REF	ALS	2024-09-08	WP2421728	<0.0000050		<0.0000050		0.000189	0.000192	0.00094	0.00132	0.104	0.104	<0.0010	<0.03
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002				0.7								
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002		0.056										
CR-REF	ALS	2024-10-06	WP2423572	<0.0000050		<0.0000050		0.00022	0.000184	0.00122	0.00302	<0.0050	<0.0051	<0.0010	<0.030
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006				2.53								
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014		0.142										
CR-REF	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.000226	0.000232	0.00118	0.00163	<0.0050	<0.0051	<0.0010	<0.030
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018		0.029										
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018				0.77								
CR-REF	ALS	2024-12-02	WP2426974	<0.0000050		<0.0000050		0.000272	0.000139	0.00562	0.00098	0.0481	0.0494	0.0013	<0.030
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006				1.22								
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006		0.059										
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22	< 0.00001		< 0.00001		0.00013	0.00016	0.0004	0.0007	0.34	0.34	< 0.03	
DC-DS	ALS	2023-10-07	WP2325933-001	<0.0000050		<0.0000050		0.000204	0.000207	<0.00050	0.00058	0.0219	0.0219	<0.0010	
DC-US	SGS	2022-04-26	CA15019-MAY22	< 0.00001				0.00009	0.00008	0.0001	0.0004	0.31	0.31	< 0.03	
DC-US	SGS	2022-08-03	CA12288-AUG22			< 0.00001		0.00012	0.00029	0.0008	0.0052	<0.06	<0.06	<0.03	
DC-US	SGS	2022-08-31	CA12196-SEP22			< 0.00001		0.0002	0.00026	0.0008	0.0008	< 0.06	< 0.06	< 0.03	
DC-US	SGS	2022-09-12	CA15263-SEP22			< 0.00001		0.00023	0.00025	0.0006	0.0008	< 0.06	< 0.06	< 0.03	
DC-US	SGS	2023-01-30	CA15070-FEB23	< 0.00001		< 0.00001		0.00021	0.00027	0.0007	0.0009	0.11	0.11	< 0.03	
DC-US	SGS	2023-02-07	CA15283-FEB23	< 0.00001		< 0.00001		0.00027	0.0003	0.0006	0.0008	0.12	0.12	< 0.03	
DC-US	SGS	2023-03-23	CA13921-MAR23	< 0.00001		< 0.00001		0.00029	0.00025	0.0006	0.0007	0.22	0.22	< 0.03	
DC-US	ALS	2023-05-29	WP2310321-004	<0.0000050		<0.0000050		0.000163	0.000184	<0.00050	0.00066	0.0083	0.0083	<0.0010	
DC-US	ALS	2023-08-10	WP2319115-003	<0.0000050		<0.0000050		0.00021	0.000239	<0.00050	0.00063	<0.0050	<0.0051	<0.0010	
DC-US	ALS	2023-08-10	WP2319115-002	<0.0000050		<0.0000050		0.000213	0.000257	<0.00050	0.00071	<0.0050	<0.0051	<0.0010	
DC-US	ALS	2023-10-03	WP2325641-002												
DC-US	ALS	2023-10-03	WP2325641												
DC-US	ALS	2024-02-09	WP2403349	<0.0000050		<0.0000050		0.000241	0.000232	0.00057	0.00064	0.087	0.087	<0.0010	
DC-US	ALS	2024-02-09	WP2403349-003												
DC-US	ALS	2024-05-27	WP2413499	<0.0000050		<0.0000050		0.000163	0.000163	<0.00050	0.00066	0.0125	0.0125	<0.0010	<0.03
DC-US	ALS	2024-08-11	WP2419573	<0.0000050		<0.0000050		0.000195	0.000175	0.0005	0.00061	0.0104	0.0104	<0.0010	
DC-US	ALS	2024-10-08	WP2424113	<0.0000050		<0.0000050		0.000188	0.000198	0.0006	0.00075	0.0077	0.0077	<0.0010	<0.030

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005												
CR-REF	ALS	2024-02-10	WP2403349-008				<0.03								
CR-REF	ALS	2024-03-08	WP2405786	<0.030	<0.030	0.0126	<0.050	1	0.958		0.0017	0.00161	0.000086	0.000095	1.48
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004												
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005												
CR-REF	ALS	2024-03-08	WP2405786-005				<0.03								
CR-REF	ALS	2024-04-03	WP2407826	<0.050	<0.030	0.0165	<0.050	1.18	1.23		0.00192	0.00185	0.000119	0.00015	1.61
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004												
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004												
CR-REF	ALS	2024-04-03	WP2407826-001	<0.030			<0.03								
CR-REF	ALS	2024-05-20	WP2412615	<0.030	0.041	0.0437	<0.050	0.98	0.996		0.00144	0.00186	<0.000050	0.000073	1.71
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011												
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011												
CR-REF	ALS	2024-06-17	WP2415380	<0.050	<0.030	0.025	<0.050	1	1.05		0.00159	0.0018	0.000094	0.000147	1.76
CR-REF	Flett	2024-06-17	TMWATR070224CH1												
CR-REF	ALS	2024-07-07	WP2416896	<0.030	<0.030	0.0262	<0.050	0.949	0.924		0.00163	0.00179	<0.000050	0.000122	1.61
CR-REF	Flett	2024-07-07	TMWATR072524CH2												
CR-REF	Flett	2024-07-07	MTWATR072424JS2												
CR-REF	ALS	2024-08-06	WP2419247	<0.030	0.032	0.0361	<0.050	0.942	1.06		0.0019	0.00212	0.000086	0.000109	1.68
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006												
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006												
CR-REF	ALS	2024-09-08	WP2421728	<0.050	0.034	0.0378	<0.050	0.961	1.04		0.00162	0.0022	<0.000050	0.000078	1.96
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002												
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002												
CR-REF	ALS	2024-10-06	WP2423572		0.098	0.0883		1.05	1.15		0.00151	0.00377	0.000108	<0.000050	2
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006												
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014												
CR-REF	ALS	2024-11-06	WP2425806		<0.030	0.0209		1.03	1.1		0.00152	0.00183	0.000091	0.000124	2.08
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018												
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018												
CR-REF	ALS	2024-12-02	WP2426974		<0.030	0.0284		1.15	0.669		0.00162	0.00136	<0.000050	<0.000050	2.12
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006												
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006												
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22	0.019			0.038	0.867	0.984				0.00008	0.00011	1.79
DC-DS	ALS	2023-10-07	WP2325933-001	<0.030		0.0282	0.039	1.43	1.41		0.00237	0.00261	0.000091	0.000086	3.32
DC-US	SGS	2022-04-26	CA15019-MAY22	0.014			0.021	0.482	0.592				0.00011	0.00011	0.7
DC-US	SGS	2022-08-03	CA12288-AUG22	< 0.003			< 0.003	0.861	0.876				0.00018	0.00016	0.65
DC-US	SGS	2022-08-31	CA12196-SEP22	0.019			0.029	0.994	1.01				0.00018	0.00015	0.92
DC-US	SGS	2022-09-12	CA15263-SEP22	0.004			0.036	0.841	0.851				0.00013	0.00015	0.73
DC-US	SGS	2023-01-30	CA15070-FEB23	0.022			0.034	1.06	1.16				< 0.00004	< 0.00004	2.99
DC-US	SGS	2023-02-07	CA15283-FEB23	0.029			0.031	1.14	1.27				0.00013	0.00019	1.64
DC-US	SGS	2023-03-23	CA13921-MAR23	0.021			0.032	1.24	1.26				< 0.00004	0.00023	3.81
DC-US	ALS	2023-05-29	WP2310321-004	<0.030		0.0242	0.039	1.14	1.1		0.00167	0.00195	0.00013	0.000123	1.79
DC-US	ALS	2023-08-10	WP2319115-003	<0.030		0.0556	0.057	0.967	1.11		0.00227	0.00238	0.000108	0.000113	1.71
DC-US	ALS	2023-08-10	WP2319115-002	<0.030		0.0589	0.056	0.968	1.13		0.00236	0.00249	0.000081	0.000108	1.72
DC-US	ALS	2023-10-03	WP2325641-002												
DC-US	ALS	2023-10-03	WP2325641												
DC-US	ALS	2024-02-09	WP2403349	<0.030	<0.030	0.0243	<0.050	1.41	1.45		0.0022	0.00228	0.000113	0.000091	3.36
DC-US	ALS	2024-02-09	WP2403349-003				<0.03								
DC-US	ALS	2024-05-27	WP2413499	<0.050	<0.030	0.0394	<0.050	0.831	0.966		0.00161	0.00182	0.000097	0.000077	1.95
DC-US	ALS	2024-08-11	WP2419573	<0.030	0.039	0.0579	<0.050	0.715	0.825		0.00199	0.00216	0.000107	0.000092	1.73
DC-US	ALS	2024-10-08	WP2424113		<0.030	0.0356		0.755	0.852		0.00163	0.00185	0.00015	<0.000050	1.95

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005													
CR-REF	ALS	2024-02-10	WP2403349-008													
CR-REF	ALS	2024-03-08	WP2405786	1.45	<0.000010	<0.000010	2.32	2.41	59.8	1	0.0293	0.0303	1.96	1.66	6.27	<0.00020
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004													
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005													
CR-REF	ALS	2024-03-08	WP2405786-005													
CR-REF	ALS	2024-04-03	WP2407826	1.76	<0.000010	<0.000010	3	3.37	57	1.3	0.0329	0.0321	2.47	2.64	6.61	<0.00020
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004													
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004													
CR-REF	ALS	2024-04-03	WP2407826-001													
CR-REF	ALS	2024-05-20	WP2412615	2.19	<0.000010	<0.000010	2.29	2.44	80.2	10	0.029	0.0278	1.88	2.09	5.14	<0.00020
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011													
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011													
CR-REF	ALS	2024-06-17	WP2415380	2.04	<0.000010	<0.000010	2.49	2.63	72.6	4.7	0.0282	0.03	2.17	2.22	5.81	<0.00020
CR-REF	Flett	2024-06-17	TMWATR070224CH1													
CR-REF	ALS	2024-07-07	WP2416896	1.75	<0.000010	<0.000010	2.52	2.56	54.4	5.8	0.0274	0.0276	2.24	2.27	6.24	<0.00020
CR-REF	Flett	2024-07-07	TMWATR072524CH2													
CR-REF	Flett	2024-07-07	MTWATR072424JS2													
CR-REF	ALS	2024-08-06	WP2419247	2.15	<0.000010	<0.000010	2.48	2.71	76.4	6	0.0302	0.0324	2.14	2.36	6.38	<0.00020
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006													
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006													
CR-REF	ALS	2024-09-08	WP2421728	2.16	<0.000010	<0.000010	2.6	2.53	62.2	6.3	0.0294	0.0297	2.32	2.09	6.3	<0.00020
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002													
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002													
CR-REF	ALS	2024-10-06	WP2423572	3.64	<0.000010	<0.000010	2.7	2.42	60.8	107	0.0303	0.0353	2.13	2.25	6.22	<0.00020
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006													
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014													
CR-REF	ALS	2024-11-06	WP2425806	2.36	<0.000010	<0.000010	2.88	2.69	81.3	4.5	0.0311	0.0306	2.24	2.3	5.98	<0.00020
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018													
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018													
CR-REF	ALS	2024-12-02	WP2426974	1.6	<0.000010	<0.000010	2.94	1.79	84.7	12.6	0.0319	0.0209	2.04	1.27	6.51	<0.00020
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006													
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006													
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22	2.58	< 0.00005	< 0.00005	0.77	0.92	83	8	0.0158	0.018		< 1	< 2	
DC-DS	ALS	2023-10-07	WP2325933-001	3.63	<0.000010	<0.000010	1.74	1.81	85.6	3.8	0.0351	0.0326	<0.50	<0.50	0.46	<0.00020
DC-US	SGS	2022-04-26	CA15019-MAY22	1.18	< 0.00005	< 0.00005	0.72	0.79	66	5	0.0114	0.0135	< 1	< 1	< 2	
DC-US	SGS	2022-08-03	CA12288-AUG22	1.32	< 0.00005	< 0.00005	1.19	1.19	66	10	0.0214	0.0218	< 1	1	< 2	
DC-US	SGS	2022-08-31	CA12196-SEP22	0.89	< 0.00005	< 0.00005	1.18	1.21	117	7	0.025	0.0246	< 1	< 1	< 2	
DC-US	SGS	2022-09-12	CA15263-SEP22	0.9	< 0.00005	< 0.00005	1.5	1.73	71	6	0.0242	0.024	< 1	1	< 2	
DC-US	SGS	2023-01-30	CA15070-FEB23	3.55	< 0.00005	< 0.00005	1.62	1.74	86	< 2	0.032	0.0348	< 1	< 1	< 2	
DC-US	SGS	2023-02-07	CA15283-FEB23	2.1	<0.00005	< 0.00005	1.74	1.88	80	< 2	0.0306	0.0333	< 1	< 1	< 2	
DC-US	SGS	2023-03-23	CA13921-MAR23	4.06	< 0.00005	< 0.00005	2.1	2.1	111	2	0.0365	0.0368	< 1	< 1	< 2	
DC-US	ALS	2023-05-29	WP2310321-004	2.18	<0.000010	<0.000010	1.29	1.45	63.8	4.4	0.0242	0.0229	<0.50	<0.50	0.86	<0.00020
DC-US	ALS	2023-08-10	WP2319115-003	1.96	<0.000010	<0.000010	1.32	1.43	75	9.8	0.0273	0.0288	<0.50	<0.50	0.6	<0.00020
DC-US	ALS	2023-08-10	WP2319115-002	2.01	<0.000010	<0.000010	1.34	1.47	76.7	10.4	0.0274	0.0266	<0.50	<0.50	0.61	<0.00020
DC-US	ALS	2023-10-03	WP2325641-002													
DC-US	ALS	2023-10-03	WP2325641													
DC-US	ALS	2024-02-09	WP2403349	3.26	<0.000010	<0.000010	1.98	2.8	89.3	3.6	0.0333	0.0319	0.71	<0.50	0.84	<0.00020
DC-US	ALS	2024-02-09	WP2403349-003													
DC-US	ALS	2024-05-27	WP2413499	2.46	<0.000010	<0.000010	1.23	1.4	60.7	5	0.0209	0.0221	<0.50	<0.50	0.69	<0.00020
DC-US	ALS	2024-08-11	WP2419573	2.08	<0.000010	<0.000010	1.26	1.38	78.2	11.2	0.0234	0.0254	<0.50	<0.50	0.45	<0.00020
DC-US	ALS	2024-10-08	WP2424113	2.4	<0.000010	<0.000010	1.4	1.52	74.6	6.7	0.0229	0.0258	<0.50	<0.50	0.54	<0.00020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005													
CR-REF	ALS	2024-02-10	WP2403349-008													
CR-REF	ALS	2024-03-08	WP2405786	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.0016		<0.00010	<0.00010	0.000095
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004													
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005													
CR-REF	ALS	2024-03-08	WP2405786-005													
CR-REF	ALS	2024-04-03	WP2407826	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00154		<0.00010	<0.00010	0.000098
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004													
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004													
CR-REF	ALS	2024-04-03	WP2407826-001													
CR-REF	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00058	0.00942		<0.00010	<0.00010	0.000076
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011													
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011													
CR-REF	ALS	2024-06-17	WP2415380	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00111	0.00535		<0.00010	<0.00010	0.000072
CR-REF	Flett	2024-06-17	TMWATR070224CH1													
CR-REF	ALS	2024-07-07	WP2416896	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00062	0.00494		<0.00010	<0.00010	0.000062
CR-REF	Flett	2024-07-07	TMWATR072524CH2													
CR-REF	Flett	2024-07-07	MTWATR072424JS2													
CR-REF	ALS	2024-08-06	WP2419247	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00068	0.00705		<0.00010	<0.00010	0.000127
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006													
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006													
CR-REF	ALS	2024-09-08	WP2421728	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00766		<0.00010	<0.00010	0.000104
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002													
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002													
CR-REF	ALS	2024-10-06	WP2423572	<0.00020	<0.000010	0.000018	<0.00010	0.00018	<0.00010	<0.00010	0.00092	0.0528		<0.00010	<0.00010	0.000094
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006													
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014													
CR-REF	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00067	0.00764		<0.00010	<0.00010	0.000155
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018													
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018													
CR-REF	ALS	2024-12-02	WP2426974	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0011	0.00624		<0.00010	<0.00010	0.000101
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006													
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006													
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22		< 0.000005	0.000005			< 0.00006	< 0.00006			19	0.00002	< 0.00002	0.000143
DC-DS	ALS	2023-10-07	WP2325933-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0011	0.00479		<0.00010	<0.00010	0.00011
DC-US	SGS	2022-04-26	CA15019-MAY22		< 0.000005	< 0.000005			< 0.00006	0.00008	0.00028	0.00449	6	< 0.00002	< 0.00002	0.000036
DC-US	SGS	2022-08-03	CA12288-AUG22		< 0.000005	< 0.000005			< 0.00006	0.0001	0.00185	0.00787	18	< 0.00002	< 0.00002	0.00016
DC-US	SGS	2022-08-31	CA12196-SEP22		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00464	0.00502	20	< 0.00002	< 0.00002	0.000226
DC-US	SGS	2022-09-12	CA15263-SEP22		< 0.000005	0.000007			< 0.00006	0.00028	0.00207	0.00503	22	< 0.00002	< 0.00002	0.000204
DC-US	SGS	2023-01-30	CA15070-FEB23		< 0.000005	< 0.000005			0.00018	0.0001	0.00301	0.00639	19	< 0.00002	< 0.00002	0.00026
DC-US	SGS	2023-02-07	CA15283-FEB23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00272	0.00428	19	0.00003	< 0.00002	0.000267
DC-US	SGS	2023-03-23	CA13921-MAR23		< 0.000005	0.000008			< 0.00006	0.00008	0.00308	0.00701	23	< 0.00002	0.00004	0.000377
DC-US	ALS	2023-05-29	WP2310321-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00202	0.00598		<0.00010	<0.00010	0.000216
DC-US	ALS	2023-08-10	WP2319115-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00094	0.00453		<0.00010	<0.00010	0.000148
DC-US	ALS	2023-08-10	WP2319115-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00113	0.00373		<0.00010	<0.00010	0.000148
DC-US	ALS	2023-10-03	WP2325641-002													
DC-US	ALS	2023-10-03	WP2325641													
DC-US	ALS	2024-02-09	WP2403349	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00113	0.00366		<0.00010	<0.00010	0.000149
DC-US	ALS	2024-02-09	WP2403349-003													
DC-US	ALS	2024-05-27	WP2413499	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00206	0.00643		<0.00010	<0.00010	0.000159
DC-US	ALS	2024-08-11	WP2419573	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00166	0.0039		<0.00010	<0.00010	0.000178
DC-US	ALS	2024-10-08	WP2424113	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00148	0.00447		<0.00010	<0.00010	0.000186

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
CR-REF	Flett	2024-02-10	MTWATR030824JS1-005									
CR-REF	ALS	2024-02-10	WP2403349-008									
CR-REF	ALS	2024-03-08	WP2405786	0.000093	<0.00050	<0.00050			0.001	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2024-03-08	TMWATR032024CH1-004									
CR-REF	Flett	2024-03-08	MTWATR032124JS1-005									
CR-REF	ALS	2024-03-08	WP2405786-005									
CR-REF	ALS	2024-04-03	WP2407826	0.000103	<0.00050	<0.00050			0.0027	0.0058	<0.00030	<0.00020
CR-REF	Flett	2024-04-03	TMWATR042224CH1-004									
CR-REF	Flett	2024-04-03	MTWATR041624JS1-004									
CR-REF	ALS	2024-04-03	WP2407826-001									
CR-REF	ALS	2024-05-20	WP2412615	0.000096	<0.00050	0.00064			<0.0010	<0.0030	<0.00030	0.00023
CR-REF	Flett	2024-05-20	TMWATR061924CH1-011									
CR-REF	Flett	2024-05-20	MTWATR061024JS1-011									
CR-REF	ALS	2024-06-17	WP2415380	0.000077	<0.00050	0.00055			<0.0010	<0.0030	<0.00030	0.00024
CR-REF	Flett	2024-06-17	TMWATR070224CH1									
CR-REF	ALS	2024-07-07	WP2416896	0.000072	<0.00050	0.00058			<0.0010	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2024-07-07	TMWATR072524CH2									
CR-REF	Flett	2024-07-07	MTWATR072424JS2									
CR-REF	ALS	2024-08-06	WP2419247	0.000137	0.00055	0.00082			<0.0010	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2024-08-06	TMWATR091124CH1-006									
CR-REF	Flett	2024-08-06	MTWATR091624JS1-006									
CR-REF	ALS	2024-09-08	WP2421728	0.000123	<0.00050	0.00081			<0.0010	<0.0030	<0.00030	0.00053
CR-REF	Flett	2024-09-08	TMWATR092924CH1-002									
CR-REF	Flett	2024-09-08	MTWATR100124JS1-002									
CR-REF	ALS	2024-10-06	WP2423572	0.000263	<0.00050	0.00268			<0.0010	0.0044	<0.00030	0.00049
CR-REF	Flett	2024-10-06	TMWATR102524ZB2-006									
CR-REF	Flett	2024-10-06	MTWATR112624JS1-014									
CR-REF	ALS	2024-11-06	WP2425806	0.000158	<0.00050	0.0007			0.0014	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2024-11-06	MTWATR120524JS1-018									
CR-REF	Flett	2024-11-06	TMWATR112524CH1-018									
CR-REF	ALS	2024-12-02	WP2426974	0.000083	<0.00050	0.00054			0.0044	<0.0030	<0.00030	<0.00020
CR-REF	Flett	2024-12-02	TMWATR012125CH1-006									
CR-REF	Flett	2024-12-02	MTWATR121924JS1-006									
DC US (Extra 2)	SGS	2022-06-15	CA14382-JUN22	0.000162	0.0006	0.00105	0.00025	0.00032	< 0.002	0.008	< 0.002	< 0.002
DC-DS	ALS	2023-10-07	WP2325933-001	0.000124	<0.00050	0.0006			<0.0010	<0.0030	<0.00030	0.00026
DC-US	SGS	2022-04-26	CA15019-MAY22	0.000052	0.00014	0.00055	0.00004	0.00017	< 0.002	0.003	< 0.002	< 0.002
DC-US	SGS	2022-08-03	CA12288-AUG22	0.000214	0.00059	0.00102	0.00019	0.00032	< 0.002	0.005	< 0.002	< 0.002
DC-US	SGS	2022-08-31	CA12196-SEP22	0.000233	0.00083	0.00083	0.0003	0.00029	< 0.002	< 0.002	< 0.002	< 0.002
DC-US	SGS	2022-09-12	CA15263-SEP22	0.000207	0.00066	0.00089	0.00022	0.00028	< 0.002	< 0.002	< 0.002	< 0.002
DC-US	SGS	2023-01-30	CA15070-FEB23	0.00031	0.00067	0.00098	0.00032	0.00039	0.002	< 0.002	< 0.002	< 0.002
DC-US	SGS	2023-02-07	CA15283-FEB23	0.000278	0.00076	0.00094	0.00025	0.00026	< 0.002	< 0.002	< 0.002	< 0.002
DC-US	SGS	2023-03-23	CA13921-MAR23	0.000435	0.00075	0.00111	0.00034	0.0004	0.004	0.004	< 0.002	< 0.002
DC-US	ALS	2023-05-29	WP2310321-004	0.00025	0.00078	0.00091			<0.0010	<0.0030	<0.00030	0.00029
DC-US	ALS	2023-08-10	WP2319115-003	0.000159	<0.00050	0.00069			<0.0010	<0.0030	<0.00030	0.00024
DC-US	ALS	2023-08-10	WP2319115-002	0.00016	<0.00050	0.00069			<0.0010	<0.0030	<0.00030	0.00025
DC-US	ALS	2023-10-03	WP2325641-002									
DC-US	ALS	2023-10-03	WP2325641									
DC-US	ALS	2024-02-09	WP2403349	0.000174	<0.00050	0.0006			0.001	<0.0030	<0.00030	<0.00020
DC-US	ALS	2024-02-09	WP2403349-003									
DC-US	ALS	2024-05-27	WP2413499	0.00018	0.00057	0.0009			<0.0010	<0.0030	0.00032	0.00029
DC-US	ALS	2024-08-11	WP2419573	0.000193	0.00067	0.0014			<0.0010	<0.0030	0.00036	0.00032
DC-US	ALS	2024-10-08	WP2424113	0.000227	0.00075	0.001			<0.0010	<0.0030	0.00031	0.00028

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010											
DC-US	Flett	2024-10-08	MTWATR112724JS1-009											
Dixie Downstrear	ALS	2023-09-26	WP2324596-001	7.5	8.06	13.9	6	147	<1.0	<1.0	<1.0	147	0.0466	0.145
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006											
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006											
DL-REF	ALS	2023-05-29	WP2310321-001	7.69	7.48	19.7	2.3	31.5	<1.0	<1.0	<1.0	31.5	0.0759	0.14
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008											
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006											
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007											
DL-REF	ALS	2023-08-10	WP2319115-001	7.73	7.48	21.1	2.6	38.4	<1.0	<1.0	<1.0	38.4	0.045	0.109
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010											
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010											
DL-REF	ALS	2023-10-07	WP2325933-004	6.07	7.55	12.9	<2.0	38.1	<1.0	<1.0	<1.0	38.1	0.034	0.148
DL-REF	ALS	2023-10-07	WP2325933-005	6.07	7.68	12.9	<2.0	38.9	<1.0	<1.0	<1.0	38.9	0.0483	0.16
DL-REF	ALS	2024-02-10	WP2403349	7.66	6.78	0.5	10.9	48.5	<1.0	<1.0	<1.0	48.5	0.102	0.282
DL-REF	ALS	2024-02-10	WP2403349	7.66	6.77	0.5	13.1	48.1	<1.0	<1.0	<1.0	48.1	0.103	0.279
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009											
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008											
DL-REF	ALS	2024-02-10	WP2403349-005	7.66	6.77	0.5	13.1	48.1	<1.0	<1.0	<1.0	48.1	0.103	0.279
DL-REF	ALS	2024-02-10	WP2403349-004											
DL-REF	ALS	2024-05-27	WP2413499	7.08	7.26	11.5	<2.0	25.9	<1.0	<1.0	<1.0	25.9	0.128	0.264
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008											
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008											
DL-REF	ALS	2024-08-11	WP2419573	7.51	7.54	19.7	<2.0	29.5	<1.0	<1.0	<1.0	29.5	0.0583	0.0888
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003											
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002											
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018											
DL-REF	ALS	2024-10-08	WP2424113	7.66	7.62	10.3	<2.0	33.9	<1.0	<1.0	<1.0	33.9	0.0429	0.127
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008											
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007											
DL-REF-B	ALS	2024-10-08	WP2424113	7.28	7.58	9.6	2.3	33.6	<1.0	<1.0	<1.0	33.6	0.0396	0.169
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007											
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006											
GL-TRIB	ALS	2023-05-29	WP2310321-002	7.28	7.49	22	4.1	32.9	<1.0	<1.0	<1.0	32.9	0.0682	0.294
GL-TRIB	ALS	2023-05-29	WP2310321-003	7.28	7.48	22	4.2	33.8	<1.0	<1.0	<1.0	33.8	0.0717	0.367
GL-TRIB	ALS	2023-08-10	WP2319115-005	7.48	7.52	21	2.5	37.6	<1.0	<1.0	<1.0	37.6	0.0284	0.0607
GL-TRIB	ALS	2023-10-12	WP2326558-001	7.02	7.35	9.8	2.8	37.6	<1.0	<1.0	<1.0	37.6	0.0392	0.112
GL-TRIB	ALS	2024-05-27	WP2413499	7.08	7.4	11.3	<2.0	31	<1.0	<1.0	<1.0	31	0.0921	0.159
GL-TRIB	ALS	2024-08-11	WP2419573	7.86	7.51	18.3	2.9	30.7	<1.0	<1.0	<1.0	30.7	0.0514	0.0832
GL-TRIB	ALS	2024-10-08	WP2424113	6.84	7.47	10.3	4.4	36.4	<1.0	<1.0	<1.0	36.4	0.0371	0.0714
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014											
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013											
GRL-01	ALS	2024-10-07	WP2423685	7.75	7.56	8.89	<2.0	28.3	<1.0	<1.0	<1.0	28.3	0.0065	0.0644
GRL-01	ALS	2024-10-07	WP2423685	7.75	7.53	8.89	<2.0	27.9	<1.0	<1.0	<1.0	27.9	0.0055	0.0701
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008											
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007											
GRL-01-B	ALS	2024-10-07	WP2423685	6.69	7.53	8.87	<2.0	27.8	<1.0	<1.0	<1.0	27.8	0.0086	0.0599
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003											
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011											
GRL-02	ALS	2024-10-07	WP2423685	6.89	7.52	7.52	<2.0	29.2	<1.0	<1.0	<1.0	29.2	0.006	0.0502
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001											
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010												
DC-US	Flett	2024-10-08	MTWATR112724JS1-009												
Dixie Downstrean	ALS	2023-09-26	WP2324596-001		0.0268	<0.0010		<0.00010	<0.00010	0.00273	0.00284	0.129	0.138	<0.000020	<0.000020
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006												
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006												
DL-REF	ALS	2023-05-29	WP2310321-001		<0.010	<0.0010		<0.00010	0.0001	0.00147	0.00169	0.00878	0.00856	<0.000020	<0.000020
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008												
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006												
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007												
DL-REF	ALS	2023-08-10	WP2319115-001		0.038	<0.0010		<0.00010	<0.00010	0.00416	0.00445	0.0084	0.00907	<0.000020	<0.000020
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010												
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010												
DL-REF	ALS	2023-10-07	WP2325933-004		0.008	<0.0010		<0.00010	<0.00010	0.00222	0.00251	0.00882	0.00994	<0.000020	<0.000020
DL-REF	ALS	2023-10-07	WP2325933-005		0.0082	<0.0010		<0.00010	<0.00010	0.00214	0.00243	0.00858	0.00995	<0.000020	<0.000020
DL-REF	ALS	2024-02-10	WP2403349			<0.0010	0.0574	<0.00010	<0.00010	0.00182	0.00179	0.012	0.0128	<0.000020	0.000021
DL-REF	ALS	2024-02-10	WP2403349			<0.0010	0.0576	<0.00010	<0.00010	0.00173	0.00183	0.0116	0.0129	<0.000020	<0.000020
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009												
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008												
DL-REF	ALS	2024-02-10	WP2403349-005		0.0576	<0.0010		<0.00010	<0.00010	0.00173	0.00183	0.0116	0.0129	<0.000020	<0.000020
DL-REF	ALS	2024-02-10	WP2403349-004		0.0574										
DL-REF	ALS	2024-05-27	WP2413499			<0.0010	0.0114	<0.00010	<0.00010	0.00154	0.00169	0.00814	0.00824	0.000032	<0.000020
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008												
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008												
DL-REF	ALS	2024-08-11	WP2419573			<0.0010	0.0146	<0.00010	<0.00010	0.00336	0.00376	0.00751	0.00822	<0.000020	<0.000020
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003												
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002												
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018												
DL-REF	ALS	2024-10-08	WP2424113			<0.0010	0.0264	<0.00010	<0.00010	0.00312	0.0034	0.00849	0.00842	<0.000020	<0.000020
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008												
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007												
DL-REF-B	ALS	2024-10-08	WP2424113			<0.0010	0.0323	<0.00010	<0.00010	0.00288	0.00255	0.00853	0.00831	<0.000020	<0.000020
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007												
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006												
GL-TRIB	ALS	2023-05-29	WP2310321-002		<0.010	<0.0010		<0.00010	<0.00010	0.0016	0.00185	0.00871	0.0105	<0.000020	<0.000020
GL-TRIB	ALS	2023-05-29	WP2310321-003		0.033	<0.0010		<0.00010	<0.00010	0.00164	0.00192	0.00883	0.0111	<0.000020	0.000027
GL-TRIB	ALS	2023-08-10	WP2319115-005		0.017	<0.0010		<0.00010	<0.00010	0.00322	0.00348	0.00683	0.00728	<0.000020	<0.000020
GL-TRIB	ALS	2023-10-12	WP2326558-001		0.0078	<0.0010		<0.00010	<0.00010	0.00159	0.00164	0.0107	0.01	<0.000020	<0.000020
GL-TRIB	ALS	2024-05-27	WP2413499			<0.0010	0.0059	<0.00010	<0.00010	0.00164	0.00181	0.00819	0.0085	<0.000020	<0.000020
GL-TRIB	ALS	2024-08-11	WP2419573			<0.0010	0.0277	<0.00010	<0.00010	0.00392	0.00409	0.00707	0.00817	<0.000020	0.000021
GL-TRIB	ALS	2024-10-08	WP2424113			<0.0010	0.0742	<0.00010	<0.00010	0.002	0.00212	0.00829	0.00819	<0.000020	<0.000020
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014												
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013												
GRL-01	ALS	2024-10-07	WP2423685			<0.0010	0.0116	0.00031	0.00031	0.00994	0.0104	0.00721	0.00697	<0.000020	0.000023
GRL-01	ALS	2024-10-07	WP2423685			<0.0010	0.0062	0.00031	0.0003	0.0101	0.0105	0.00681	0.00738	<0.000020	<0.000020
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008												
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007												
GRL-01-B	ALS	2024-10-07	WP2423685			<0.0010	<0.0050	0.00033	0.00031	0.01	0.0104	0.00688	0.00706	<0.000020	<0.000020
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003												
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011												
GRL-02	ALS	2024-10-07	WP2423685			<0.0010	0.0062	0.00028	0.00029	0.00773	0.008	0.00752	0.00754	<0.000020	<0.000020
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001												
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010													
DC-US	Flett	2024-10-08	MTWATR112724JS1-009													
)ixie Downstrean	ALS	2023-09-26	WP2324596-001	<0.000050	<0.000050	<0.010	<0.010	0.0000096	0.0000095	36.2	39.6	14.3	<0.000010	0.000014		1.68
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006													
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006													
DL-REF	ALS	2023-05-29	WP2310321-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.97	9.57	20	<0.000010	<0.000010		0.24
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008													
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006													
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007													
DL-REF	ALS	2023-08-10	WP2319115-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11	10.5	19.7	<0.000010	0.000014		0.21
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010													
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010													
DL-REF	ALS	2023-10-07	WP2325933-004	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000066	10.5	11	18.5	<0.000010	0.000013		0.73
DL-REF	ALS	2023-10-07	WP2325933-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000006	10.7	10.8	16.3	<0.000010	0.000013		0.3
DL-REF	ALS	2024-02-10	WP2403349	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13.8	13.3	23.6	<0.000010	0.000022		0.51
DL-REF	ALS	2024-02-10	WP2403349	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000052	13.7	13.5	25.1	<0.000010	0.000024		0.47
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009													
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008													
DL-REF	ALS	2024-02-10	WP2403349-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000052	13.7	13.5	25.1	<0.000010	0.000024		0.47
DL-REF	ALS	2024-02-10	WP2403349-004													
DL-REF	ALS	2024-05-27	WP2413499	<0.000050	<0.000050	<0.010	<0.010	0.0000057	0.0000056	7.74	8.08	23.6	0.000016	0.000014		0.18
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008													
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008													
DL-REF	ALS	2024-08-11	WP2419573	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.08	9.85	24.4	<0.000010	<0.000010		0.18
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003													
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002													
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018													
DL-REF	ALS	2024-10-08	WP2424113	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.51	9.8	22.2	<0.000010	<0.000010		0.15
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008													
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007													
DL-REF-B	ALS	2024-10-08	WP2424113	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.9	9.65	22.4	<0.000010	<0.000010		0.17
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007													
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006													
GL-TRIB	ALS	2023-05-29	WP2310321-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000087	9.46	9.81	20.1	<0.000010	0.000029		0.24
GL-TRIB	ALS	2023-05-29	WP2310321-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000075	9.32	9.88	19.4	<0.000010	0.000039		0.24
GL-TRIB	ALS	2023-08-10	WP2319115-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000065	10.8	11.6	18.2	<0.000010	<0.000010		0.22
GL-TRIB	ALS	2023-10-12	WP2326558-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	11.1	10.8	15.8	<0.000010	0.000011		0.24
GL-TRIB	ALS	2024-05-27	WP2413499	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000054	8.66	9.44	22.1	<0.000010	<0.000010		0.2
GL-TRIB	ALS	2024-08-11	WP2419573	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000007	9.52	10.1	22.9	<0.000010	<0.000010		0.13
GL-TRIB	ALS	2024-10-08	WP2424113	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.2	10.6	21.9	<0.000010	<0.000010		0.34
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014													
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013													
GRL-01	ALS	2024-10-07	WP2423685	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000061	10.4	10.3	12.5	<0.000010	0.000017		2.94
GRL-01	ALS	2024-10-07	WP2423685	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.4	10.6	11.4	<0.000010	<0.000010		2.93
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008													
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007													
GRL-01-B	ALS	2024-10-07	WP2423685	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.3	10.6	11.2	<0.000010	<0.000010		2.93
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003													
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011													
GRL-02	ALS	2024-10-07	WP2423685	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.5	10.7	12.4	<0.000010	<0.000010		5.96
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001													
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010													
DC-US	Flett	2024-10-08	MTWATR112724JS1-009													
Dixie Downstrean	ALS	2023-09-26	WP2324596-001	0.00024	0.00035	0.00027	0.00029	251	0.00069	0.00086	<0.0010	<0.0010		<0.0010		
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006													
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006													
DL-REF	ALS	2023-05-29	WP2310321-001	0.00042	0.00049	<0.00010	0.00011	68.1	0.00087	0.00094	0.001	0.001		0.001		
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008													
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006													
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007													
DL-REF	ALS	2023-08-10	WP2319115-001	0.0002	0.00039	0.00016	0.00021	80.8	0.00067	0.00081	<0.0010	<0.0010		<0.0010		
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010													
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010													
DL-REF	ALS	2023-10-07	WP2325933-004	0.00023	0.00039	<0.00010	0.00016	82.1	0.00064	0.00082	<0.0010	<0.0010		<0.0010		
DL-REF	ALS	2023-10-07	WP2325933-005	0.00022	0.00041	<0.00010	0.00017	83.1	0.00062	0.00082	<0.0010	<0.0010		<0.0010		
DL-REF	ALS	2024-02-10	WP2403349	0.00037	0.00067	0.0005	0.00057	106	0.0009	0.0009	<0.0010	<0.0010		<0.0010		
DL-REF	ALS	2024-02-10	WP2403349	0.00037	0.00068	0.00049	0.00055	106	0.00078	0.0009	<0.0010	<0.0010		<0.0010		
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009													
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008													
DL-REF	ALS	2024-02-10	WP2403349-005	0.00037	0.00068	0.00049	0.00055	106	0.00078	0.0009	<0.0010	<0.0010		<0.0010		
DL-REF	ALS	2024-02-10	WP2403349-004													
DL-REF	ALS	2024-05-27	WP2413499	0.00041	0.00064	0.00011	0.00016	55.9	0.00095	0.00103	<0.0010	<0.0010		<0.0010		
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008													
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008													
DL-REF	ALS	2024-08-11	WP2419573	0.00038	0.00045	<0.00010	0.0001	65.1	0.00935	0.00083	<0.0010	<0.0010		<0.0010		
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003													
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002													
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018													
DL-REF	ALS	2024-10-08	WP2424113	0.00033	0.0005	0.00011	0.00017	73	0.00072	0.00083	<0.0010	<0.0010		<0.0010		
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008													
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007													
DL-REF-B	ALS	2024-10-08	WP2424113	0.00032	0.00053	0.00011	0.00016	73.1	0.00066	0.00091	<0.0010	<0.0010		<0.0010		
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007													
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006													
GL-TRIB	ALS	2023-05-29	WP2310321-002	0.00033	0.00081	<0.00010	0.0002	71.9	0.00084	0.00112	<0.0010	0.0011		0.001		
GL-TRIB	ALS	2023-05-29	WP2310321-003	0.0004	0.0009	<0.00010	0.00022	71.5	0.00086	0.0012	<0.0010	0.001		0.0011		
GL-TRIB	ALS	2023-08-10	WP2319115-005	0.00016	0.00027	<0.00010	0.00014	79.5	0.00061	0.00072	0.0013	0.002		0.0015		
GL-TRIB	ALS	2023-10-12	WP2326558-001	0.00019	0.00029	<0.00010	0.00011	80.3	0.00061	0.00071	<0.0010	<0.0010		<0.0010		
GL-TRIB	ALS	2024-05-27	WP2413499	0.00035	0.00051	<0.00010	0.0001	65.7	0.00084	0.001	<0.0010	0.0018		<0.0010		
GL-TRIB	ALS	2024-08-11	WP2419573	0.00033	0.00035	0.0001	0.00013	66.6	0.00082	0.00083	<0.0010	<0.0010		<0.0010		
GL-TRIB	ALS	2024-10-08	WP2424113	0.00028	0.00035	0.0001	0.00014	77.7	0.00066	0.00073	<0.0010	<0.0010		<0.0010		
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014													
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013													
GRL-01	ALS	2024-10-07	WP2423685	<0.00010	0.00017	<0.00010	<0.00010	85	0.00119	0.00146	<0.0010	<0.0010		<0.0010		
GRL-01	ALS	2024-10-07	WP2423685	<0.00010	0.0002	<0.00010	<0.00010	86.8	0.00097	0.00138	<0.0010	<0.0010		<0.0010		
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008													
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007													
GRL-01-B	ALS	2024-10-07	WP2423685	<0.00010	0.00022	<0.00010	<0.00010	86	0.00105	0.00138	<0.0010	<0.0010		<0.0010		
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003													
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011													
GRL-02	ALS	2024-10-07	WP2423685	<0.00010	0.00019	<0.00010	<0.00010	96.4	0.00073	0.00108	<0.0010	<0.0010		<0.0010		
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001													
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010												
DC-US	Flett	2024-10-08	MTWATR112724JS1-009												
Dixie Downstrean	ALS	2023-09-26	WP2324596-001	130	137	0.578	0.746	0.000081	0.000149	0.0051	0.0061	9.67	9.31	0.287	0.273
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006												
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006												
DL-REF	ALS	2023-05-29	WP2310321-001	34.7	36	0.262	0.448	0.000066	0.000096	<0.0010	0.0018	2.99	2.94	0.00762	0.0138
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008												
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006												
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007												
DL-REF	ALS	2023-08-10	WP2319115-001	40.1	40.2	0.273	0.515	0.000069	0.000106	0.0013	0.0014	3.07	3.39	0.0696	0.102
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010												
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010												
DL-REF	ALS	2023-10-07	WP2325933-004	39.5	41.4	0.184	0.377	0.000078	0.000147	0.0015	0.0016	3.23	3.39	0.00401	0.0146
DL-REF	ALS	2023-10-07	WP2325933-005	39.7	40.6	0.192	0.385	0.000083	0.000158	0.0015	0.0015	3.16	3.31	0.00354	0.0153
DL-REF	ALS	2024-02-10	WP2403349	54	50.7	0.836	1.09	0.000141	0.000194	0.0018	0.0022	4.75	4.25	0.155	0.156
DL-REF	ALS	2024-02-10	WP2403349	53.8	52.1	0.815	1.09	0.000118	0.000195	0.0025	0.0023	4.76	4.46	0.16	0.157
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009												
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008												
DL-REF	ALS	2024-02-10	WP2403349-005	53.8	52.1	0.815	1.09	0.000118	0.000195	0.0025	0.0023	4.76	4.46	0.16	0.157
DL-REF	ALS	2024-02-10	WP2403349-004												
DL-REF	ALS	2024-05-27	WP2413499	29.8	32	0.32	0.524	0.000145	0.000106	<0.0010	0.0018	2.54	2.86	0.0136	0.0159
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008												
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008												
DL-REF	ALS	2024-08-11	WP2419573	33.8	36.9	0.417	0.532	0.000087	0.000101	<0.0010	0.0019	2.7	2.99	0.00396	0.0224
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003												
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002												
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018												
DL-REF	ALS	2024-10-08	WP2424113	36.1	37.6	0.409	0.599	0.000122	0.000166	<0.0010	0.002	3	3.2	0.00968	0.0198
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008												
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007												
DL-REF-B	ALS	2024-10-08	WP2424113	38.1	37.5	0.399	0.597	0.000114	0.00018	<0.0010	0.002	3.24	3.26	0.0109	0.0187
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007												
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006												
GL-TRIB	ALS	2023-05-29	WP2310321-002	35.8	37.2	0.344	0.635	0.000099	0.000189	<0.0010	0.0019	2.97	3.08	0.00518	0.0169
GL-TRIB	ALS	2023-05-29	WP2310321-003	35.8	37.9	0.344	0.709	0.000099	0.000232	0.0011	0.0019	3.05	3.22	0.0044	0.0207
GL-TRIB	ALS	2023-08-10	WP2319115-005	39.4	42.4	0.143	0.323	<0.000050	0.000053	0.0015	0.0018	3.01	3.26	0.00366	0.0355
GL-TRIB	ALS	2023-10-12	WP2326558-001	42.3	40.4	0.134	0.236	0.00005	0.000112	0.0023	0.0017	3.54	3.27	0.00482	0.00952
GL-TRIB	ALS	2024-05-27	WP2413499	32.5	35.8	0.292	0.431	0.000078	0.000114	<0.0010	0.0018	2.65	2.96	0.00498	0.00763
GL-TRIB	ALS	2024-08-11	WP2419573	35.1	37.8	0.366	0.478	0.000085	0.000114	<0.0010	0.002	2.75	3.05	0.00375	0.0213
GL-TRIB	ALS	2024-10-08	WP2424113	39.4	40.4	0.188	0.305	0.000059	0.000078	<0.0010	0.002	3.39	3.39	0.00825	0.0139
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014												
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013												
GRL-01	ALS	2024-10-07	WP2423685	36.1	36.7	0.023	0.096	<0.000050	0.000079	0.0016	0.0019	2.47	2.67	0.00067	0.00642
GRL-01	ALS	2024-10-07	WP2423685	36.4	37.2	0.022	0.103	<0.000050	0.000059	0.0014	0.0018	2.54	2.62	0.00069	0.00629
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008												
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007												
GRL-01-B	ALS	2024-10-07	WP2423685	36.5	37.1	0.022	0.091	<0.000050	0.000064	0.0014	0.0018	2.61	2.59	0.00068	0.00622
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003												
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011												
GRL-02	ALS	2024-10-07	WP2423685	36.7	38	0.038	0.111	<0.000050	<0.000050	0.0016	0.0018	2.55	2.74	0.0024	0.00882
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001												
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010				1.36								
DC-US	Flett	2024-10-08	MTWATR112724JS1-009		0.043										
)ixie Downstrean	ALS	2023-09-26	WP2324596-001	<0.0000050		<0.0000050		0.000595	0.000744	0.0009	0.00096	<0.0050	<0.0051	<0.0010	
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006				2.74								
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006		0.098										
DL-REF	ALS	2023-05-29	WP2310321-001	<0.0000050		<0.0000050		0.000168	0.000191	0.00063	0.00066	<0.0050	<0.0051	<0.0010	
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008		0.048										
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006				1.5								
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007		0.043										
DL-REF	ALS	2023-08-10	WP2319115-001	<0.0000050		<0.0000050		0.000252	0.000256	<0.00050	0.00056	0.0093	0.0093	<0.0010	
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010				1.15								
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010		0.023										
DL-REF	ALS	2023-10-07	WP2325933-004	<0.0000050		<0.0000050		0.00024	0.000241	<0.00050	0.00062	0.0152	0.0152	<0.0010	
DL-REF	ALS	2023-10-07	WP2325933-005	<0.0000050		<0.0000050		0.000267	0.000251	<0.00050	0.00059	0.0115	0.0115	<0.0010	
DL-REF	ALS	2024-02-10	WP2403349	<0.0000050		<0.0000050		0.000215	0.00021	0.00063	0.00079	0.0998	0.0998	<0.0010	
DL-REF	ALS	2024-02-10	WP2403349	<0.0000050		<0.0000050		0.0002	0.000217	0.00062	0.00083	0.0952	0.0952	<0.0010	
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009				2.02								
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008		0.147										
DL-REF	ALS	2024-02-10	WP2403349-005	<0.0000050		<0.0000050		0.0002	0.000217	0.00062	0.00083	0.0952	0.0952	<0.0010	
DL-REF	ALS	2024-02-10	WP2403349-004												
DL-REF	ALS	2024-05-27	WP2413499	<0.0000050		<0.0000050		0.000163	0.000143	0.00065	0.00078	0.0208	0.0208	<0.0010	<0.03
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008				4.44								
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008		0.123										
DL-REF	ALS	2024-08-11	WP2419573	<0.0000050		<0.0000050		0.00019	0.000199	0.00062	0.00067	<0.0050	<0.0051	<0.0010	
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003				2.39								
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002				2.34								
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018		0.077										
DL-REF	ALS	2024-10-08	WP2424113	<0.0000050		<0.0000050		0.0002	0.000196	0.00058	0.00074	0.0272	0.0288	0.0016	<0.030
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008				1.49								
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007		0.049										
DL-REF-B	ALS	2024-10-08	WP2424113	<0.0000050		<0.0000050		0.000197	0.000161	0.00053	0.00089	0.0381	0.0394	0.0013	<0.030
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007				1.57								
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006		0.064										
GL-TRIB	ALS	2023-05-29	WP2310321-002	<0.0000050		<0.0000050		0.000168	0.000195	0.00057	0.00083	0.0217	0.0217	<0.0010	
GL-TRIB	ALS	2023-05-29	WP2310321-003	<0.0000050		<0.0000050		0.000164	0.000208	0.00055	0.001	0.0142	0.0142	<0.0010	
GL-TRIB	ALS	2023-08-10	WP2319115-005	<0.0000050		<0.0000050		0.000236	0.000285	<0.00050	0.00058	0.0094	0.0094	<0.0010	
GL-TRIB	ALS	2023-10-12	WP2326558-001	<0.0000050		<0.0000050		0.000229	0.000209	<0.00050	0.00055	<0.0050	<0.0051	<0.0010	
GL-TRIB	ALS	2024-05-27	WP2413499	<0.0000050		<0.0000050		0.000178	0.000179	0.00055	0.0007	<0.0050	<0.0051	<0.0010	<0.03
GL-TRIB	ALS	2024-08-11	WP2419573	<0.0000050		<0.0000050		0.000202	0.000146	0.00054	0.00058	<0.0050	<0.0051	<0.0010	
GL-TRIB	ALS	2024-10-08	WP2424113	<0.0000050		<0.0000050		0.000215	0.000146	0.00056	0.00072	0.023	0.025	0.002	<0.030
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014				1.45								
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013		0.105										
GRL-01	ALS	2024-10-07	WP2423685	<0.0000050		<0.0000050		0.000204	0.00018	0.00107	0.00131	<0.0050	<0.0051	<0.0010	<0.030
GRL-01	ALS	2024-10-07	WP2423685	<0.0000050		<0.0000050		0.000195	0.000188	0.00108	0.00131	<0.0050	<0.0051	<0.0010	<0.030
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008		0.02										
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007				0.59								
GRL-01-B	ALS	2024-10-07	WP2423685	<0.0000050		<0.0000050		0.000166	0.000182	0.00107	0.00136	<0.0050	<0.0051	0.0011	<0.030
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003				0.59								
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011		0.016										
GRL-02	ALS	2024-10-07	WP2423685	<0.0000050		<0.0000050		0.000153	0.000192	0.00089	0.00102	0.0053	0.0053	<0.0010	<0.030
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001				0.58								
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009		0.031										

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010												
DC-US	Flett	2024-10-08	MTWATR112724JS1-009												
Dixie Downstrean	ALS	2023-09-26	WP2324596-001	<0.030		0.0449	0.043	2.93	2.6		0.00284	0.00266	0.000077	0.000076	5.52
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006												
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006												
DL-REF	ALS	2023-05-29	WP2310321-001	<0.030		0.021	<0.030	0.968	1		0.00165	0.00179	0.000067	0.000132	2.05
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008												
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006												
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007												
DL-REF	ALS	2023-08-10	WP2319115-001	<0.030		0.051	0.048	0.992	1.12		0.00234	0.00246	0.000091	0.000121	2.14
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010												
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010												
DL-REF	ALS	2023-10-07	WP2325933-004	<0.030		0.0447	0.056	1.08	1.12		0.00206	0.00242	0.000068	0.000121	2.79
DL-REF	ALS	2023-10-07	WP2325933-005	<0.030		0.0448	0.055	1.1	1.13		0.00202	0.00225	0.000116	0.000108	2.82
DL-REF	ALS	2024-02-10	WP2403349	<0.030	<0.030	0.0304	<0.050	1.17	1.08		0.00203	0.00213	0.000113	0.000142	3.36
DL-REF	ALS	2024-02-10	WP2403349	<0.030	0.03	0.0306	<0.050	1.14	1.08		0.00198	0.00235	0.000118	0.000144	3.3
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009												
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008												
DL-REF	ALS	2024-02-10	WP2403349-005	<0.030		0.0306	0.03	1.14	1.08		0.00198	0.00235	0.000118	0.000144	3.3
DL-REF	ALS	2024-02-10	WP2403349-004				<0.03								
DL-REF	ALS	2024-05-27	WP2413499	<0.050	0.031	0.0292	<0.050	0.736	0.834		0.00148	0.00174	0.000112	0.000131	2.08
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008												
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008												
DL-REF	ALS	2024-08-11	WP2419573	<0.030	0.035	0.0466	<0.050	0.691	0.751		0.00188	0.002	0.000123	0.000103	1.63
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003												
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002												
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018												
DL-REF	ALS	2024-10-08	WP2424113		<0.030	0.0425		0.766	0.847		0.00181	0.0019	0.00015	0.000194	2.06
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008												
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007												
DL-REF-B	ALS	2024-10-08	WP2424113		0.032	0.028		0.784	0.815		0.00175	0.00188	0.000077	<0.000050	2.16
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007												
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006												
GL-TRIB	ALS	2023-05-29	WP2310321-002	<0.030		0.033	0.046	0.987	1.13		0.00185	0.00216	0.00009	0.000091	1.74
GL-TRIB	ALS	2023-05-29	WP2310321-003	<0.030		0.0444	0.054	0.996	1.19		0.00179	0.00248	0.000069	0.000101	1.73
GL-TRIB	ALS	2023-08-10	WP2319115-005	<0.030		0.0525	0.054	0.988	1.1		0.0024	0.00241	0.000085	0.000099	1.58
GL-TRIB	ALS	2023-10-12	WP2326558-001	<0.030		0.0292	<0.030	1.36	1.13		0.00226	0.00237	0.000094	0.000118	2.64
GL-TRIB	ALS	2024-05-27	WP2413499	<0.050	<0.030	0.0209	<0.050	0.849	0.97		0.00167	0.0018	0.000111	0.000145	1.95
GL-TRIB	ALS	2024-08-11	WP2419573	<0.030	0.058	0.0441	0.058	0.731	0.826		0.00201	0.00212	0.000099	0.000104	1.74
GL-TRIB	ALS	2024-10-08	WP2424113		<0.030	0.0359		1.17	1.1		0.00281	0.00278	0.000072	0.000083	1.45
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014												
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013												
GRL-01	ALS	2024-10-07	WP2423685		0.031	0.0295		0.967	0.988		0.00175	0.00183	0.000058	0.000224	2.05
GRL-01	ALS	2024-10-07	WP2423685		0.035	0.027		0.97	0.988		0.00162	0.00178	0.000078	0.000082	2.07
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008												
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007												
GRL-01-B	ALS	2024-10-07	WP2423685		<0.030	0.0288		0.971	0.956		0.0017	0.00186	0.000103	0.000057	2.09
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003												
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011												
GRL-02	ALS	2024-10-07	WP2423685		<0.030	0.0282		0.976	0.963		0.00155	0.0018	0.000078	<0.000050	1.7
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001												
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010													
DC-US	Flett	2024-10-08	MTWATR112724JS1-009													
)ixie Downstrear	ALS	2023-09-26	WP2324596-001	5.49	0.000013	0.00003	4.29	4.03	190	3.4	0.0674	0.0695	0.81	0.79	1.58	<0.00020
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006													
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006													
DL-REF	ALS	2023-05-29	WP2310321-001	2.28	<0.000010	<0.000010	1.33	1.49	62.2	3.1	0.0211	0.0222	<0.50	<0.50	0.79	<0.00020
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008													
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006													
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007													
DL-REF	ALS	2023-08-10	WP2319115-001	2.31	<0.000010	<0.000010	1.29	1.41	77.7	7.5	0.0263	0.0269	<0.50	<0.50	0.69	<0.00020
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010													
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010													
DL-REF	ALS	2023-10-07	WP2325933-004	2.88	<0.000010	<0.000010	1.48	1.71	70.6	7.5	0.0266	0.0253	<0.50	<0.50	0.57	<0.00020
DL-REF	ALS	2023-10-07	WP2325933-005	3	<0.000010	<0.000010	1.42	1.54	71.2	11.1	0.0264	0.0244	<0.50	<0.50	0.58	<0.00020
DL-REF	ALS	2024-02-10	WP2403349	3.58	<0.000010	<0.000010	2.12	2.01	95.7	4.1	0.0364	0.0336	0.69	0.66	1.08	<0.00020
DL-REF	ALS	2024-02-10	WP2403349	3.47	<0.000010	<0.000010	2.03	2.01	96.3	3.7	0.0345	0.0341	0.73	<0.50	1.15	<0.00020
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009													
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008													
DL-REF	ALS	2024-02-10	WP2403349-005	3.47	<0.000010	<0.000010	2.03	2.01	96.3	3.7	0.0345	0.0341	0.73	<0.50	1.15	<0.00020
DL-REF	ALS	2024-02-10	WP2403349-004													
DL-REF	ALS	2024-05-27	WP2413499	2.63	<0.000010	<0.000010	1.28	1.37	58.6	2.6	0.0208	0.0203	<0.50	<0.50	0.62	<0.00020
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008													
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008													
DL-REF	ALS	2024-08-11	WP2419573	1.82	<0.000010	<0.000010	1.32	1.38	78.6	7.1	0.0229	0.0248	<0.50	<0.50	0.48	<0.00020
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003													
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002													
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018													
DL-REF	ALS	2024-10-08	WP2424113	2.55	<0.000010	<0.000010	1.6	1.56	76.9	5.3	0.0238	0.0256	<0.50	0.59	0.56	<0.00020
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008													
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007													
DL-REF-B	ALS	2024-10-08	WP2424113	2.46	<0.000010	<0.000010	1.5	1.62	78.3	6.1	0.0237	0.0237	<0.50	0.5	0.54	<0.00020
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007													
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006													
GL-TRIB	ALS	2023-05-29	WP2310321-002	2.22	<0.000010	<0.000010	1.27	1.46	63.2	12.1	0.0214	0.0231	<0.50	<0.50	0.83	<0.00020
GL-TRIB	ALS	2023-05-29	WP2310321-003	2.55	<0.000010	<0.000010	1.32	2.25	67.8	17.4	0.0197	0.0236	0.57	<0.50	0.83	<0.00020
GL-TRIB	ALS	2023-08-10	WP2319115-005	1.79	<0.000010	<0.000010	1.3	1.45	69.7	11.1	0.027	0.0252	<0.50	<0.50	0.61	<0.00020
GL-TRIB	ALS	2023-10-12	WP2326558-001	2.47	<0.000010	<0.000010	1.51	1.51	72	5	0.0285	0.0256	0.6	<0.50	0.68	<0.00020
GL-TRIB	ALS	2024-05-27	WP2413499	2.2	<0.000010	<0.000010	1.2	1.4	59	5.1	0.0213	0.0231	<0.50	<0.50	0.69	<0.00020
GL-TRIB	ALS	2024-08-11	WP2419573	2	<0.000010	<0.000010	1.3	1.37	74.2	7.8	0.0231	0.0256	<0.50	<0.50	0.45	<0.00020
GL-TRIB	ALS	2024-10-08	WP2424113	1.68	<0.000010	<0.000010	1.58	1.66	83.6	12.5	0.0241	0.0243	<0.50	<0.50	0.48	<0.00020
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014													
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013													
GRL-01	ALS	2024-10-07	WP2423685	2.3	<0.000010	<0.000010	2.48	2.64	64.8	3.1	0.0295	0.0294	2.22	2.6	6.52	<0.00020
GRL-01	ALS	2024-10-07	WP2423685	2.31	<0.000010	<0.000010	2.45	2.58	66.8	3.5	0.0292	0.0294	2.24	2.59	6.52	<0.00020
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008													
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007													
GRL-01-B	ALS	2024-10-07	WP2423685	2.25	<0.000010	<0.000010	2.49	2.6	68.1	3.3	0.0299	0.0317	2.27	2.58	6.49	<0.00020
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003													
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011													
GRL-02	ALS	2024-10-07	WP2423685	1.86	<0.000010	<0.000010	3.89	4.29	73.5	2.3	0.0297	0.031	2.1	2.16	5.68	<0.00020
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001													
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010													
DC-US	Flett	2024-10-08	MTWATR112724JS1-009													
Dixie Downstrean	ALS	2023-09-26	WP2324596-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00233	0.00612		0.00073	0.00079	0.000868
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006													
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006													
DL-REF	ALS	2023-05-29	WP2310321-001	0.00027	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00127	0.00414		<0.00010	<0.00010	0.000258
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008													
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006													
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007													
DL-REF	ALS	2023-08-10	WP2319115-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00134	0.00372		<0.00010	<0.00010	0.000208
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010													
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010													
DL-REF	ALS	2023-10-07	WP2325933-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0011	0.00505		<0.00010	<0.00010	0.000155
DL-REF	ALS	2023-10-07	WP2325933-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00144	0.00535		<0.00010	<0.00010	0.000162
DL-REF	ALS	2024-02-10	WP2403349	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00277	0.0109		<0.00010	<0.00010	0.000275
DL-REF	ALS	2024-02-10	WP2403349	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00266	0.0108		<0.00010	<0.00010	0.00026
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009													
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008													
DL-REF	ALS	2024-02-10	WP2403349-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00266	0.0108		<0.00010	<0.00010	0.00026
DL-REF	ALS	2024-02-10	WP2403349-004													
DL-REF	ALS	2024-05-27	WP2413499	<0.00020	0.000019	<0.000010	0.00011	<0.00010	<0.00010	<0.00010	0.0027	0.00849		<0.00010	<0.00010	0.000166
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008													
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008													
DL-REF	ALS	2024-08-11	WP2419573	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00199	0.00296		<0.00010	<0.00010	0.0002
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003													
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002													
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018													
DL-REF	ALS	2024-10-08	WP2424113	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0018	0.0047		<0.00010	<0.00010	0.000225
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008													
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007													
DL-REF-B	ALS	2024-10-08	WP2424113	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00149	0.00586		<0.00010	<0.00010	0.000209
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007													
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006													
GL-TRIB	ALS	2023-05-29	WP2310321-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00209	0.0117		<0.00010	<0.00010	0.000263
GL-TRIB	ALS	2023-05-29	WP2310321-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0022	0.0156		<0.00010	<0.00010	0.000243
GL-TRIB	ALS	2023-08-10	WP2319115-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00076	0.00178		<0.00010	<0.00010	0.000161
GL-TRIB	ALS	2023-10-12	WP2326558-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00104	0.00369		<0.00010	<0.00010	0.000104
GL-TRIB	ALS	2024-05-27	WP2413499	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00242	0.00455		<0.00010	<0.00010	0.000153
GL-TRIB	ALS	2024-08-11	WP2419573	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00156	0.00272		<0.00010	<0.00010	0.000168
GL-TRIB	ALS	2024-10-08	WP2424113	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00098	0.00258		<0.00010	<0.00010	0.000127
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014													
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013													
GRL-01	ALS	2024-10-07	WP2423685	<0.00020	<0.000010	0.000012	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00269		<0.00010	<0.00010	0.000064
GRL-01	ALS	2024-10-07	WP2423685	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00293		<0.00010	<0.00010	0.000062
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008													
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007													
GRL-01-B	ALS	2024-10-07	WP2423685	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00224		<0.00010	<0.00010	0.000064
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003													
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011													
GRL-02	ALS	2024-10-07	WP2423685	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00193		<0.00010	<0.00010	0.000075
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001													
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
DC-US	Flett	2024-10-08	TMWATR102824ZB1-010									
DC-US	Flett	2024-10-08	MTWATR112724JS1-009									
)ixie Downstrean	ALS	2023-09-26	WP2324596-001	0.000992	0.0006	0.00082			<0.0010	<0.0030	<0.00030	<0.00020
DL-REF	Flett	2023-05-29	TMWATR060923ZB1-006									
DL-REF	Flett	2023-05-29	MTWATR060823JS1-006									
DL-REF	ALS	2023-05-29	WP2310321-001	0.00022	0.0005	0.00077			0.0024	<0.0030	<0.00030	0.00028
DL-REF	Flett	2023-08-09	MTWATR082323JS1-008									
DL-REF	Flett	2023-08-09	TMWATR082323ZB1-006									
DL-REF	Flett	2023-08-09	MTWATR082323JS1-007									
DL-REF	ALS	2023-08-10	WP2319115-001	0.000226	0.00064	0.00088			<0.0010	<0.0030	<0.00030	0.00025
DL-REF	Flett	2023-10-07	TMWATR110223ZB1-010									
DL-REF	Flett	2023-10-07	MTWATR111923JS1-010									
DL-REF	ALS	2023-10-07	WP2325933-004	0.000173	0.00061	0.00085			<0.0010	<0.0030	<0.00030	<0.00020
DL-REF	ALS	2023-10-07	WP2325933-005	0.00018	0.00062	0.00091			<0.0010	<0.0030	<0.00030	<0.00020
DL-REF	ALS	2024-02-10	WP2403349	0.000306	0.0007	0.00114			0.0026	0.0047	0.00034	0.00029
DL-REF	ALS	2024-02-10	WP2403349	0.00033	0.00072	0.00116			0.0034	<0.0030	0.0003	0.00027
DL-REF	Flett	2024-02-10	TMWATR022824CH1-009									
DL-REF	Flett	2024-02-10	MTWATR030824JS1-008									
DL-REF	ALS	2024-02-10	WP2403349-005	0.00033	0.00072	0.00116			0.0034	<0.0030	0.0003	0.00027
DL-REF	ALS	2024-02-10	WP2403349-004									
DL-REF	ALS	2024-05-27	WP2413499	0.000184	0.00058	0.00093			0.0014	<0.0030	0.0004	0.00036
DL-REF	Flett	2024-05-27	TMWATR061924CH1-008									
DL-REF	Flett	2024-05-27	MTWATR061024JS1-008									
DL-REF	ALS	2024-08-11	WP2419573	0.000205	0.00067	0.0011			0.0018	<0.0030	0.0004	0.00038
DL-REF	Flett	2024-08-11	TMWATR091224CH1-003									
DL-REF	Flett	2024-08-11	TMWATR091224CH1-002									
DL-REF	Flett	2024-08-11	MTWATR091624JS1-018									
DL-REF	ALS	2024-10-08	WP2424113	0.000263	0.00083	0.00112			<0.0010	<0.0030	0.00037	0.00032
DL-REF	Flett	2024-10-08	TMWATR102824ZB1-008									
DL-REF	Flett	2024-10-08	MTWATR112724JS1-007									
DL-REF-B	ALS	2024-10-08	WP2424113	0.000217	0.00078	0.00107			<0.0010	<0.0030	0.00032	0.00031
DL-REF-B	Flett	2024-10-08	TMWATR102824ZB1-007									
DL-REF-B	Flett	2024-10-08	MTWATR112724JS1-006									
GL-TRIB	ALS	2023-05-29	WP2310321-002	0.000254	0.00073	0.00128			<0.0010	<0.0030	<0.00030	0.0003
GL-TRIB	ALS	2023-05-29	WP2310321-003	0.000257	0.00078	0.00152			<0.0010	0.0033	<0.00030	0.00035
GL-TRIB	ALS	2023-08-10	WP2319115-005	0.000153	<0.00050	0.00053			<0.0010	<0.0030	<0.00030	0.0002
GL-TRIB	ALS	2023-10-12	WP2326558-001	0.000118	0.00051	0.00077			<0.0010	<0.0030	<0.00030	<0.00020
GL-TRIB	ALS	2024-05-27	WP2413499	0.000168	0.00059	0.0008			<0.0010	<0.0030	0.00036	0.00031
GL-TRIB	ALS	2024-08-11	WP2419573	0.000182	0.00067	0.00107			0.0024	<0.0030	0.00038	0.00032
GL-TRIB	ALS	2024-10-08	WP2424113	0.00014	0.00052	0.0007			<0.0010	<0.0030	<0.00030	<0.00020
GL-TRIB	Flett	2024-10-08	TMWATR102824ZB1-014									
GL-TRIB	Flett	2024-10-08	MTWATR112724JS1-013									
GRL-01	ALS	2024-10-07	WP2423685	0.000079	<0.00050	0.00054			<0.0010	<0.0030	<0.00030	<0.00020
GRL-01	ALS	2024-10-07	WP2423685	0.000074	<0.00050	0.00057			<0.0010	<0.0030	<0.00030	<0.00020
GRL-01	Flett	2024-10-07	MTWATR112624JS1-008									
GRL-01	Flett	2024-10-07	TMWATR102224ZB2-007									
GRL-01-B	ALS	2024-10-07	WP2423685	0.000073	<0.00050	0.00054			<0.0010	<0.0030	<0.00030	<0.00020
GRL-01-B	Flett	2024-10-07	TMWATR102524ZB2-003									
GRL-01-B	Flett	2024-10-07	MTWATR112624JS1-011									
GRL-02	ALS	2024-10-07	WP2423685	0.000086	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
GRL-02	Flett	2024-10-07	TMWATR102524ZB2-001									
GRL-02	Flett	2024-10-07	MTWATR112624JS1-009									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685	6.78	7.53	7.57	<2.0	29	<1.0	<1.0	<1.0	29	0.007	0.0542
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002											
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010											
GRL-03	ALS	2024-10-07	WP2423685	7.31	7.53	10.3	<2.0	27.2	<1.0	<1.0	<1.0	27.2	0.004	0.0481
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004											
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004											
GRL-03-B	ALS	2024-10-07	WP2423685	5.98	7.56	10.6	<2.0	28.5	<1.0	<1.0	<1.0	28.5	0.0082	0.0566
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005											
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013											
PL-01	Flett	2023-05-26	MTWATR060823JS1-010											
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009											
PL-01	Flett	2023-05-26	MTWATR060823JS1-009											
PL-01	ALS	2023-05-26	WP2309859-001	7.58	7.45	13.7	2.9	29.3	<1.0	<1.0	<1.0	29.3	0.0284	0.194
PL-01	ALS	2023-08-10	WP2319111	7.24	7.53	20.9	2.8	36.5	<1.0	<1.0	<1.0	36.5	0.0225	0.13
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011											
PL-01	Flett	2023-08-10	MTWATR082323JS1-013											
PL-01	ALS	2023-08-10	WP2319111-001											
PL-01	Flett	2023-10-10	MTWATR111923JS1-012											
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011											
PL-01	Flett	2023-10-10	MTWATR111923JS1-011											
PL-01	ALS	2023-10-10	WP2326292-001	7.12	7.42	11	3.8	37	<1.0	<1.0	<1.0	37	0.0637	0.411
PL-01	ALS	2024-02-13	WP2403718	7.85	6.95	0.1	<2.0	32.9	<1.0	<1.0	<1.0	32.9	0.0092	0.137
PL-01	ALS	2024-02-13	WP2403718	7.85	7.28	0.1	2.1	34.9	<1.0	<1.0	<1.0	34.9	0.0096	0.132
PL-01	Flett	2024-02-13	TMWATR022824CH1-010											
PL-01	Flett	2024-02-13	MTWATR030824JS1-009											
PL-01	ALS	2024-02-13	WP2403718-002											
PL-01	ALS	2024-02-13	WP2403718-001											
PL-01	ALS	2024-05-20	WP2412615	7.72	7.43	11.5	<2.0	29.2	<1.0	<1.0	<1.0	29.2	0.0336	0.233
PL-01	Flett	2024-05-20	TMWATR061924CH1-001											
PL-01	Flett	2024-05-20	MTWATR061024JS1-001											
PL-01	ALS	2024-08-05	WP2419024	6.95	7.66	24.4	<2.0	33.8	<1.0	<1.0	<1.0	33.8	0.0317	0.139
PL-01	Flett	2024-08-05	MTWATR091624JS1-011											
PL-01	Flett	2024-08-05	TMWATR091124CH1-010											
PL-01	Flett	2024-08-05	MTWATR091624JS1-010											
PL-01	ALS	2024-10-08	WP2424051	7.44	7.56	7.66	<2.0	31.6	<1.0	<1.0	<1.0	31.6	0.0222	0.114
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017											
PL-01	Flett	2024-10-08	MTWATR112724JS1-017											
PL-01	ALS	2024-11-06	WP2425806	6.59	7.63	1.46	<2.0	38.1	<1.0	<1.0	<1.0	38.1	0.0177	0.14
PL-01	Flett	2024-11-06	MTWATR120524JS1-011											
PL-01	Flett	2024-11-06	TMWATR112524CH1-012											
PL-01-B	ALS	2024-08-05	WP2419024	6.42	7.59	22.2	2.3	34.3	<1.0	<1.0	<1.0	34.3	0.0192	0.204
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015											
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015											
PL-01-B	ALS	2024-10-08	WP2424051	6.82	7.51	7.71	<2.0	32	<1.0	<1.0	<1.0	32	0.0284	0.127
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009											
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008											
PL-01-B	ALS	2024-11-06	WP2425806	6.39	7.61	1.73	<2.0	38	<1.0	<1.0	<1.0	38	0.0199	0.234
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012											
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013											
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010											
PL-02	Flett	2023-05-26	MTWATR060823JS1-011											
PL-02	ALS	2023-05-26	WP2309859-002	7.62	7.68	15.3	2.2	38	<1.0	<1.0	<1.0	38	0.0476	0.244

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685			<0.0010	0.0066	0.00029	0.00028	0.00782	0.00801	0.00739	0.00772	<0.000020	<0.000020
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002												
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010												
GRL-03	ALS	2024-10-07	WP2423685			<0.0010	0.0142	0.00029	0.00028	0.0108	0.011	0.00649	0.00649	<0.000020	<0.000020
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004												
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004												
GRL-03-B	ALS	2024-10-07	WP2423685			<0.0010	0.0062	0.00028	0.00028	0.0106	0.0112	0.00661	0.00664	<0.000020	<0.000020
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005												
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013												
PL-01	Flett	2023-05-26	MTWATR060823JS1-010												
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009												
PL-01	Flett	2023-05-26	MTWATR060823JS1-009												
PL-01	ALS	2023-05-26	WP2309859-001		0.01	<0.0010		0.00021	0.00023	0.00397	0.00513	0.00655	0.00861	<0.000020	<0.000020
PL-01	ALS	2023-08-10	WP2319111			<0.0010	<0.010	0.00027	0.00027	0.00924	0.0101	0.00852	0.00893	<0.000020	<0.000020
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011												
PL-01	Flett	2023-08-10	MTWATR082323JS1-013												
PL-01	ALS	2023-08-10	WP2319111-001		<0.010										
PL-01	Flett	2023-10-10	MTWATR111923JS1-012												
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011												
PL-01	Flett	2023-10-10	MTWATR111923JS1-011												
PL-01	ALS	2023-10-10	WP2326292-001		0.0269	<0.0010		0.00029	0.00029	0.00753	0.00858	0.00927	0.0117	<0.000020	<0.000020
PL-01	ALS	2024-02-13	WP2403718			<0.0010	0.0114	0.00029	0.0003	0.00789	0.00795	0.00808	0.00837	<0.000020	<0.000020
PL-01	ALS	2024-02-13	WP2403718			<0.0010	0.0173	0.00029	0.0003	0.00786	0.00807	0.00805	0.00875	<0.000020	<0.000020
PL-01	Flett	2024-02-13	TMWATR022824CH1-010												
PL-01	Flett	2024-02-13	MTWATR030824JS1-009												
PL-01	ALS	2024-02-13	WP2403718-002		0.0114										
PL-01	ALS	2024-02-13	WP2403718-001		0.0173										
PL-01	ALS	2024-05-20	WP2412615			<0.0010	0.0091	0.00025	0.00024	0.00453	0.00589	0.00633	0.00851	<0.000020	<0.000020
PL-01	Flett	2024-05-20	TMWATR061924CH1-001												
PL-01	Flett	2024-05-20	MTWATR061024JS1-001												
PL-01	ALS	2024-08-05	WP2419024			<0.0010	0.0176	0.00027	0.00026	0.00989	0.0103	0.00846	0.0091	<0.000020	<0.000020
PL-01	Flett	2024-08-05	MTWATR091624JS1-011												
PL-01	Flett	2024-08-05	TMWATR091124CH1-010												
PL-01	Flett	2024-08-05	MTWATR091624JS1-010												
PL-01	ALS	2024-10-08	WP2424051			<0.0010	0.012	0.00029	0.00024	0.00837	0.00856	0.00789	0.00842	<0.000020	<0.000020
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017												
PL-01	Flett	2024-10-08	MTWATR112724JS1-017												
PL-01	ALS	2024-11-06	WP2425806			<0.0010	0.0203	0.00024	0.00027	0.0058	0.00679	0.00885	0.00978	<0.000020	<0.000020
PL-01	Flett	2024-11-06	MTWATR120524JS1-011												
PL-01	Flett	2024-11-06	TMWATR112524CH1-012												
PL-01-B	ALS	2024-08-05	WP2419024			<0.0010	0.0302	0.00018	0.00018	0.00652	0.00736	0.00869	0.0105	<0.000020	<0.000020
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015												
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015												
PL-01-B	ALS	2024-10-08	WP2424051			<0.0010	0.0127	0.00018	0.00024	0.00536	0.00876	0.00924	0.00868	<0.000020	<0.000020
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009												
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008												
PL-01-B	ALS	2024-11-06	WP2425806			<0.0010	0.0482	0.00026	0.00028	0.00575	0.00668	0.00891	0.0102	<0.000020	<0.000020
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012												
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013												
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010												
PL-02	Flett	2023-05-26	MTWATR060823JS1-011												
PL-02	ALS	2023-05-26	WP2309859-002		0.019	<0.0010		<0.00010	0.00011	0.00089	0.00103	0.00959	0.0119	<0.000020	<0.000020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.3	10.7	12.3	<0.000010	<0.000010		6.01
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002													
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010													
GRL-03	ALS	2024-10-07	WP2423685	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.1	10.1	11.6	<0.000010	<0.000010		2.98
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004													
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004													
GRL-03-B	ALS	2024-10-07	WP2423685	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.1	10.4	11.3	<0.000010	<0.000010		3
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005													
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013													
PL-01	Flett	2023-05-26	MTWATR060823JS1-010													
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009													
PL-01	Flett	2023-05-26	MTWATR060823JS1-009													
PL-01	ALS	2023-05-26	WP2309859-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000073	9.53	9.96	14.1	<0.000010	0.000021		2
PL-01	ALS	2023-08-10	WP2319111	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.8	12.6	12.9	<0.000010	0.000017		2.28
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011													
PL-01	Flett	2023-08-10	MTWATR082323JS1-013													
PL-01	ALS	2023-08-10	WP2319111-001													
PL-01	Flett	2023-10-10	MTWATR111923JS1-012													
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011													
PL-01	Flett	2023-10-10	MTWATR111923JS1-011													
PL-01	ALS	2023-10-10	WP2326292-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000063	12	12.1	16.4	<0.000010	0.000043		2.5
PL-01	ALS	2024-02-13	WP2403718	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12	11.9	12	<0.000010	0.000016		2.75
PL-01	ALS	2024-02-13	WP2403718	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.2	11.9	12.3	<0.000010	0.000016		2.73
PL-01	Flett	2024-02-13	TMWATR022824CH1-010													
PL-01	Flett	2024-02-13	MTWATR030824JS1-009													
PL-01	ALS	2024-02-13	WP2403718-002													
PL-01	ALS	2024-02-13	WP2403718-001													
PL-01	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000052	10.4	10.2	13.9	<0.000010	0.000026		2.5
PL-01	Flett	2024-05-20	TMWATR061924CH1-001													
PL-01	Flett	2024-05-20	MTWATR061024JS1-001													
PL-01	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.9	12	15	<0.000010	0.000018		2.81
PL-01	Flett	2024-08-05	MTWATR091624JS1-011													
PL-01	Flett	2024-08-05	TMWATR091124CH1-010													
PL-01	Flett	2024-08-05	MTWATR091624JS1-010													
PL-01	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	0.01	<0.010	<0.0000050	0.0000052	10.6	11.6	16.5	<0.000010	0.000014		2.87
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017													
PL-01	Flett	2024-10-08	MTWATR112724JS1-017													
PL-01	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.4	12.9	14.1	<0.000010	0.000018		2.73
PL-01	Flett	2024-11-06	MTWATR120524JS1-011													
PL-01	Flett	2024-11-06	TMWATR112524CH1-012													
PL-01-B	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000057	11.9	12	15	<0.000010	0.000032		1.83
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015													
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015													
PL-01-B	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000091	11.8	10.9	15.2	<0.000010	0.000014		2.83
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009													
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008													
PL-01-B	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.9	13	13.9	<0.000010	0.000022		2.72
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012													
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013													
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010													
PL-02	Flett	2023-05-26	MTWATR060823JS1-011													
PL-02	ALS	2023-05-26	WP2309859-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.7	11.8	15.2	<0.000010	0.000033		0.46

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685	<0.00010	0.00017	<0.00010	<0.00010	97	0.00076	0.00109	<0.0010	<0.0010		<0.0010		
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002													
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010													
GRL-03	ALS	2024-10-07	WP2423685	<0.00010	0.00016	<0.00010	<0.00010	85.9	0.00087	0.00128	<0.0010	<0.0010		<0.0010		
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004													
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004													
GRL-03-B	ALS	2024-10-07	WP2423685	<0.00010	0.00023	<0.00010	<0.00010	87.8	0.00104	0.00126	<0.0010	<0.0010		<0.0010		
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005													
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013													
PL-01	Flett	2023-05-26	MTWATR060823JS1-010													
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009													
PL-01	Flett	2023-05-26	MTWATR060823JS1-009													
PL-01	ALS	2023-05-26	WP2309859-001	0.00017	0.00062	<0.00010	0.00014	77.2	0.00108	0.00143	<0.0010	<0.0010		<0.0010		
PL-01	ALS	2023-08-10	WP2319111	0.00014	0.00032	<0.00010	0.00011	91.7	0.00118	0.00139	<0.0010	<0.0010		<0.0010		
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011													
PL-01	Flett	2023-08-10	MTWATR082323JS1-013													
PL-01	ALS	2023-08-10	WP2319111-001													
PL-01	Flett	2023-10-10	MTWATR111923JS1-012													
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011													
PL-01	Flett	2023-10-10	MTWATR111923JS1-011													
PL-01	ALS	2023-10-10	WP2326292-001	0.00024	0.00086	<0.00010	0.00026	94.2	0.00135	0.00181	<0.0010	<0.0010		<0.0010		
PL-01	ALS	2024-02-13	WP2403718	0.00011	0.00039	<0.00010	0.00011	98	0.00117	0.00146	<0.0010	<0.0010		<0.0010		
PL-01	ALS	2024-02-13	WP2403718	0.00012	0.00045	<0.00010	0.00013	94.4	0.00116	0.00168	<0.0010	<0.0010		<0.0010		
PL-01	Flett	2024-02-13	TMWATR022824CH1-010													
PL-01	Flett	2024-02-13	MTWATR030824JS1-009													
PL-01	ALS	2024-02-13	WP2403718-002													
PL-01	ALS	2024-02-13	WP2403718-001													
PL-01	ALS	2024-05-20	WP2412615	0.00015	0.0006	<0.00010	0.00015	81.5	0.00107	0.00162	<0.0010	<0.0010		<0.0010		
PL-01	Flett	2024-05-20	TMWATR061924CH1-001													
PL-01	Flett	2024-05-20	MTWATR061024JS1-001													
PL-01	ALS	2024-08-05	WP2419024	0.00015	0.00036	<0.00010	0.00012	93.5	0.00128	0.0015	0.0014	0.0011		0.0013		
PL-01	Flett	2024-08-05	MTWATR091624JS1-011													
PL-01	Flett	2024-08-05	TMWATR091124CH1-010													
PL-01	Flett	2024-08-05	MTWATR091624JS1-010													
PL-01	ALS	2024-10-08	WP2424051	0.00013	0.0003	<0.00010	0.00012	89.8	0.00114	0.00139	<0.0010	<0.0010		<0.0010		
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017													
PL-01	Flett	2024-10-08	MTWATR112724JS1-017													
PL-01	ALS	2024-11-06	WP2425806	0.00018	0.00083	<0.00010	0.00016	100	0.00101	0.00126	<0.0010	<0.0010		<0.0010		
PL-01	Flett	2024-11-06	MTWATR120524JS1-011													
PL-01	Flett	2024-11-06	TMWATR112524CH1-012													
PL-01-B	ALS	2024-08-05	WP2419024	0.00015	0.00052	<0.00010	0.00018	87	0.00114	0.0015	0.0013	0.0012		0.0013		
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015													
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015													
PL-01-B	ALS	2024-10-08	WP2424051	0.00017	0.00033	<0.00010	0.00012	89.1	0.00106	0.00148	<0.0010	<0.0010		<0.0010		
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009													
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008													
PL-01-B	ALS	2024-11-06	WP2425806	0.00017	0.00049	<0.00010	0.00017	100	0.00205	0.00135	<0.0010	<0.0010		<0.0010		
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012													
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013													
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010													
PL-02	Flett	2023-05-26	MTWATR060823JS1-011													
PL-02	ALS	2023-05-26	WP2309859-002	<0.00010	0.00059	<0.00010	0.00011	85	0.00095	0.00124	<0.0010	0.0013		<0.0010		

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685	36.8	38.2	0.039	0.119	<0.000050	<0.000050	0.0015	0.0021	2.68	2.78	0.00231	0.00904
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002												
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010												
GRL-03	ALS	2024-10-07	WP2423685	35.5	35.7	0.017	0.078	<0.000050	<0.000050	0.0015	0.0017	2.49	2.54	0.00044	0.00689
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004												
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004												
GRL-03-B	ALS	2024-10-07	WP2423685	35.1	37	0.021	0.091	<0.000050	0.000054	0.0014	0.0019	2.41	2.67	0.00058	0.00832
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005												
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013												
PL-01	Flett	2023-05-26	MTWATR060823JS1-010												
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009												
PL-01	Flett	2023-05-26	MTWATR060823JS1-009												
PL-01	ALS	2023-05-26	WP2309859-001	34.2	36.8	0.076	0.272	<0.000050	0.000105	0.0013	0.0016	2.52	2.9	0.00252	0.0113
PL-01	ALS	2023-08-10	WP2319111	40.6	44.1	0.032	0.15	<0.000050	0.000066	0.001	0.0016	2.71	3.08	0.00128	0.0168
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011												
PL-01	Flett	2023-08-10	MTWATR082323JS1-013												
PL-01	ALS	2023-08-10	WP2319111-001												
PL-01	Flett	2023-10-10	MTWATR111923JS1-012												
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011												
PL-01	Flett	2023-10-10	MTWATR111923JS1-011												
PL-01	ALS	2023-10-10	WP2326292-001	42.8	44.6	0.135	0.526	0.000052	0.000205	<0.0010	0.0019	3.12	3.49	0.00784	0.0201
PL-01	ALS	2024-02-13	WP2403718	42.6	42.6	0.048	0.189	<0.000050	0.000071	0.0025	0.0028	3.06	3.13	0.00707	0.0107
PL-01	ALS	2024-02-13	WP2403718	43.3	42.7	0.046	0.193	<0.000050	0.000108	0.0026	0.0024	3.11	3.15	0.00714	0.0105
PL-01	Flett	2024-02-13	TMWATR022824CH1-010												
PL-01	Flett	2024-02-13	MTWATR030824JS1-009												
PL-01	ALS	2024-02-13	WP2403718-002												
PL-01	ALS	2024-02-13	WP2403718-001												
PL-01	ALS	2024-05-20	WP2412615	36.9	36.9	0.07	0.323	<0.000050	0.000166	0.0019	0.0016	2.66	2.78	0.00253	0.0129
PL-01	Flett	2024-05-20	TMWATR061924CH1-001												
PL-01	Flett	2024-05-20	MTWATR061024JS1-001												
PL-01	ALS	2024-08-05	WP2419024	41.8	42.4	0.078	0.197	<0.000050	0.000085	0.0016	0.0026	2.94	3.02	0.00245	0.0121
PL-01	Flett	2024-08-05	MTWATR091624JS1-011												
PL-01	Flett	2024-08-05	TMWATR091124CH1-010												
PL-01	Flett	2024-08-05	MTWATR091624JS1-010												
PL-01	ALS	2024-10-08	WP2424051	38.5	40.6	0.085	0.213	<0.000050	0.000118	<0.0010	0.0021	2.92	2.83	0.00373	0.0101
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017												
PL-01	Flett	2024-10-08	MTWATR112724JS1-017												
PL-01	ALS	2024-11-06	WP2425806	44.5	46.7	0.095	0.258	<0.000050	0.0001	0.0011	0.002	3.29	3.52	0.00704	0.0152
PL-01	Flett	2024-11-06	MTWATR120524JS1-011												
PL-01	Flett	2024-11-06	TMWATR112524CH1-012												
PL-01-B	ALS	2024-08-05	WP2419024	41.4	42	0.06	0.32	<0.000050	0.000158	0.0015	0.0021	2.84	2.92	0.00324	0.0322
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015												
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015												
PL-01-B	ALS	2024-10-08	WP2424051	41.8	39.2	0.099	0.226	<0.000050	0.000107	<0.0010	0.0015	2.99	2.91	0.00347	0.011
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009												
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008												
PL-01-B	ALS	2024-11-06	WP2425806	45.8	47.2	0.097	0.311	<0.000050	0.000106	0.0013	0.0021	3.29	3.59	0.00746	0.0162
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012												
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013												
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010												
PL-02	Flett	2023-05-26	MTWATR060823JS1-011												
PL-02	ALS	2023-05-26	WP2309859-002	40.2	41.7	0.093	0.299	<0.000050	0.000108	0.0012	0.0016	2.68	2.98	0.00116	0.00787

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685	<0.0000050		<0.0000050		0.000175	0.000189	0.00086	0.00104	<0.0050	<0.0051	<0.0010	<0.030
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002				0.56								
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010		0.03										
GRL-03	ALS	2024-10-07	WP2423685	<0.0000050		<0.0000050		0.000141	0.000186	0.00103	0.00123	0.0289	0.0308	0.0019	<0.030
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004		0.026										
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004				0.6								
GRL-03-B	ALS	2024-10-07	WP2423685	<0.0000050		<0.0000050		0.00018	0.00018	0.00109	0.00124	0.0293	0.0304	0.0011	<0.030
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005				0.57								
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013		0.03										
PL-01	Flett	2023-05-26	MTWATR060823JS1-010		0.047										
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009				1.41								
PL-01	Flett	2023-05-26	MTWATR060823JS1-009		0.053										
PL-01	ALS	2023-05-26	WP2309859-001	<0.0000050		<0.0000050		0.00016	0.000198	0.00094	0.00142	<0.0050	<0.0051	<0.0010	
PL-01	ALS	2023-08-10	WP2319111	<0.0000050		<0.0000050		0.000246	0.000274	0.00091	0.00118	<0.0050	<0.0051	<0.0010	
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011				0.67								
PL-01	Flett	2023-08-10	MTWATR082323JS1-013		0.05										
PL-01	ALS	2023-08-10	WP2319111-001												
PL-01	Flett	2023-10-10	MTWATR111923JS1-012		0.078										
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011				2.37								
PL-01	Flett	2023-10-10	MTWATR111923JS1-011		0.084										
PL-01	ALS	2023-10-10	WP2326292-001	<0.0000050		<0.0000050		0.000257	0.000262	0.00129	0.00182	0.0756	0.0772	0.0016	
PL-01	ALS	2024-02-13	WP2403718	<0.0000050		<0.0000050		0.000226	0.000196	0.00111	0.00135	0.0891	0.0891	<0.0010	
PL-01	ALS	2024-02-13	WP2403718	<0.0000050		<0.0000050		0.000213	0.000194	0.0011	0.0016	0.0892	0.0892	<0.0010	
PL-01	Flett	2024-02-13	TMWATR022824CH1-010				0.63								
PL-01	Flett	2024-02-13	MTWATR030824JS1-009		0.033										
PL-01	ALS	2024-02-13	WP2403718-002												
PL-01	ALS	2024-02-13	WP2403718-001												
PL-01	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000182	0.000179	0.00108	0.00141	0.0142	0.0142	<0.0010	
PL-01	Flett	2024-05-20	TMWATR061924CH1-001				1.78								
PL-01	Flett	2024-05-20	MTWATR061024JS1-001		0.051										
PL-01	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000214	0.000262	0.00112	0.00133	<0.0050	<0.0051	<0.0010	
PL-01	Flett	2024-08-05	MTWATR091624JS1-011		0.062										
PL-01	Flett	2024-08-05	TMWATR091124CH1-010				0.88								
PL-01	Flett	2024-08-05	MTWATR091624JS1-010		0.063										
PL-01	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.000196	0.000177	0.00118	0.00124	0.0099	0.0099	<0.0010	<0.030
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017				1.03								
PL-01	Flett	2024-10-08	MTWATR112724JS1-017		0.046										
PL-01	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.000257	0.000245	0.0011	0.00138	0.009	0.009	<0.0010	<0.030
PL-01	Flett	2024-11-06	MTWATR120524JS1-011		0.048										
PL-01	Flett	2024-11-06	TMWATR112524CH1-012				1.05								
PL-01-B	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000207	0.000194	0.00096	0.00136	0.0306	0.0338	0.0032	
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015				1.69								
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015		0.146										
PL-01-B	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.000187	0.000201	0.00084	0.00132	0.0108	0.0108	<0.0010	<0.030
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009				1.06								
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008		0.045										
PL-01-B	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.000257	0.000277	0.0011	0.00141	0.0105	0.0105	<0.0010	<0.030
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012		0.047										
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013				1.01								
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010				2.53								
PL-02	Flett	2023-05-26	MTWATR060823JS1-011		0.062										
PL-02	ALS	2023-05-26	WP2309859-002	<0.0000050		<0.0000050		0.00019	0.000205	<0.00050	0.00071	0.0098	0.0098	<0.0010	

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Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685		0.032	0.0275		0.972	0.969		0.00175	0.00174	0.000063	0.000141	1.72
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002												
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010												
GRL-03	ALS	2024-10-07	WP2423685		<0.030	0.0326		0.992	0.965		0.00182	0.00182	0.000092	0.000138	2.12
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004												
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004												
GRL-03-B	ALS	2024-10-07	WP2423685		0.035	0.032		0.982	0.976		0.00174	0.00187	0.000085	0.000107	2.14
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005												
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013												
PL-01	Flett	2023-05-26	MTWATR060823JS1-010												
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009												
PL-01	Flett	2023-05-26	MTWATR060823JS1-009												
PL-01	ALS	2023-05-26	WP2309859-001	<0.030		0.0216	<0.030	0.868	1.02		0.00131	0.00182	0.000086	0.000102	1.15
PL-01	ALS	2023-08-10	WP2319111	<0.030	0.03	0.0214	<0.050	0.949	1.03		0.00171	0.002	0.000105	0.000101	1.64
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011												
PL-01	Flett	2023-08-10	MTWATR082323JS1-013												
PL-01	ALS	2023-08-10	WP2319111-001				0.03								
PL-01	Flett	2023-10-10	MTWATR111923JS1-012												
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011												
PL-01	Flett	2023-10-10	MTWATR111923JS1-011												
PL-01	ALS	2023-10-10	WP2326292-001	<0.030		0.0136	0.045	1.21	1.27		0.00176	0.00242	0.000082	0.000142	2.68
PL-01	ALS	2024-02-13	WP2403718	<0.030	0.03	0.0204	<0.050	1.09	1.12		0.00164	0.00189	0.000101	0.000086	1.75
PL-01	ALS	2024-02-13	WP2403718	<0.030	<0.030	0.0209	<0.050	1.11	1.11		0.00177	0.0018	0.000086	0.000097	1.73
PL-01	Flett	2024-02-13	TMWATR022824CH1-010												
PL-01	Flett	2024-02-13	MTWATR030824JS1-009												
PL-01	ALS	2024-02-13	WP2403718-002				0.03								
PL-01	ALS	2024-02-13	WP2403718-001				<0.03								
PL-01	ALS	2024-05-20	WP2412615	<0.030	<0.030	0.0249	<0.050	0.97	1.01		0.00144	0.00185	0.000054	0.000051	1.74
PL-01	Flett	2024-05-20	TMWATR061924CH1-001												
PL-01	Flett	2024-05-20	MTWATR061024JS1-001												
PL-01	ALS	2024-08-05	WP2419024	<0.030	<0.030	0.028	<0.050	0.959	1.03		0.00169	0.00205	0.000097	0.00014	1.59
PL-01	Flett	2024-08-05	MTWATR091624JS1-011												
PL-01	Flett	2024-08-05	TMWATR091124CH1-010												
PL-01	Flett	2024-08-05	MTWATR091624JS1-010												
PL-01	ALS	2024-10-08	WP2424051		<0.030	0.0266		0.96	1		0.00163	0.00179	0.000128	<0.000050	2.03
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017												
PL-01	Flett	2024-10-08	MTWATR112724JS1-017												
PL-01	ALS	2024-11-06	WP2425806		<0.030	0.0232		1.06	1.16		0.00153	0.00179	0.000112	0.000091	2.26
PL-01	Flett	2024-11-06	MTWATR120524JS1-011												
PL-01	Flett	2024-11-06	TMWATR112524CH1-012												
PL-01-B	ALS	2024-08-05	WP2419024	<0.030	<0.030	0.0405	<0.050	0.954	1.04		0.00174	0.00234	<0.000050	0.000086	1.83
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015												
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015												
PL-01-B	ALS	2024-10-08	WP2424051		<0.030	0.0256		0.934	1.05		0.0016	0.00177	0.000054	<0.000050	1.96
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009												
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008												
PL-01-B	ALS	2024-11-06	WP2425806		<0.030	0.0232		1.06	1.18		0.00145	0.0018	0.00011	0.000114	2.19
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012												
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013												
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010												
PL-02	Flett	2023-05-26	MTWATR060823JS1-011												
PL-02	ALS	2023-05-26	WP2309859-002	<0.030		0.0207	<0.030	0.986	1.16		0.00174	0.00208	0.000097	0.000398	1.5

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685	1.81	<0.000010	<0.000010	3.99	4.4	64.5	2.9	0.0312	0.0292	1.94	2.04	5.64	<0.00020
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002													
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010													
GRL-03	ALS	2024-10-07	WP2423685	2.2	<0.000010	<0.000010	2.52	2.61	71.5	2.1	0.0289	0.0295	2.63	2.63	6.92	<0.00020
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004													
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004													
GRL-03-B	ALS	2024-10-07	WP2423685	2.26	<0.000010	<0.000010	2.5	2.67	68.1	1.5	0.0291	0.0297	2.37	2.55	7	<0.00020
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005													
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013													
PL-01	Flett	2023-05-26	MTWATR060823JS1-010													
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009													
PL-01	Flett	2023-05-26	MTWATR060823JS1-009													
PL-01	ALS	2023-05-26	WP2309859-001	1.63	<0.000010	<0.000010	2.04	2.3	58.7	5	0.0252	0.0277	1.33	1.42	3.87	<0.00020
PL-01	ALS	2023-08-10	WP2319111	2.07	<0.000010	<0.000010	2.03	2.32	76.2	4.6	0.0303	0.03	1.43	1.56	4.37	<0.00020
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011													
PL-01	Flett	2023-08-10	MTWATR082323JS1-013													
PL-01	ALS	2023-08-10	WP2319111-001													
PL-01	Flett	2023-10-10	MTWATR111923JS1-012													
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011													
PL-01	Flett	2023-10-10	MTWATR111923JS1-011													
PL-01	ALS	2023-10-10	WP2326292-001	3.58	<0.000010	<0.000010	2.64	2.68	77.6	9.2	0.0319	0.0316	1.59	1.47	3.88	<0.00020
PL-01	ALS	2024-02-13	WP2403718	2.11	<0.000010	<0.000010	2.57	2.67	70	3.6	0.0311	0.0298	2.17	2.15	5.83	<0.00020
PL-01	ALS	2024-02-13	WP2403718	2.05	<0.000010	<0.000010	2.67	3.34	63	3.3	0.0321	0.0308	2.25	2.98	5.82	<0.00020
PL-01	Flett	2024-02-13	TMWATR022824CH1-010													
PL-01	Flett	2024-02-13	MTWATR030824JS1-009													
PL-01	ALS	2024-02-13	WP2403718-002													
PL-01	ALS	2024-02-13	WP2403718-001													
PL-01	ALS	2024-05-20	WP2412615	2.2	<0.000010	<0.000010	2.38	2.37	68.6	6.2	0.0287	0.0274	1.89	2.05	4.78	<0.00020
PL-01	Flett	2024-05-20	TMWATR061924CH1-001													
PL-01	Flett	2024-05-20	MTWATR061024JS1-001													
PL-01	ALS	2024-08-05	WP2419024	1.94	<0.000010	<0.000010	2.56	2.78	61.7	3.5	0.0324	0.0314	2.02	2.22	5.91	<0.00020
PL-01	Flett	2024-08-05	MTWATR091624JS1-011													
PL-01	Flett	2024-08-05	TMWATR091124CH1-010													
PL-01	Flett	2024-08-05	MTWATR091624JS1-010													
PL-01	ALS	2024-10-08	WP2424051	2.21	<0.000010	<0.000010	2.65	2.54	79.5	5	0.0286	0.0292	1.96	1.95	5.79	<0.00020
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017													
PL-01	Flett	2024-10-08	MTWATR112724JS1-017													
PL-01	ALS	2024-11-06	WP2425806	2.51	<0.000010	<0.000010	2.78	2.82	81	5.8	0.0316	0.0308	1.93	2.16	5.31	<0.00020
PL-01	Flett	2024-11-06	MTWATR120524JS1-011													
PL-01	Flett	2024-11-06	TMWATR112524CH1-012													
PL-01-B	ALS	2024-08-05	WP2419024	2.14	<0.000010	<0.000010	2.02	2.19	68	34.3	0.0274	0.0272	1.5	1.58	4.06	<0.00020
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015													
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015													
PL-01-B	ALS	2024-10-08	WP2424051	2.32	<0.000010	<0.000010	2.1	3.11	81.5	6.4	0.0263	0.0318	1.44	2.06	5.8	<0.00020
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009													
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008													
PL-01-B	ALS	2024-11-06	WP2425806	2.78	<0.000010	<0.000010	2.93	2.85	88.7	6.4	0.0326	0.0317	2	2.07	5.26	<0.00020
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012													
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013													
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010													
PL-02	Flett	2023-05-26	MTWATR060823JS1-011													
PL-02	ALS	2023-05-26	WP2309859-002	2.17	<0.000010	<0.000010	1.21	1.34	64.7	5.5	0.0197	0.0226	<0.50	0.55	1.62	<0.00020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00198		<0.00010	<0.00010	0.000074
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002													
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010													
GRL-03	ALS	2024-10-07	WP2423685	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00162		<0.00010	<0.00010	0.000047
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004													
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004													
GRL-03-B	ALS	2024-10-07	WP2423685	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.0023		<0.00010	<0.00010	0.000048
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005													
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013													
PL-01	Flett	2023-05-26	MTWATR060823JS1-010													
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009													
PL-01	Flett	2023-05-26	MTWATR060823JS1-009													
PL-01	ALS	2023-05-26	WP2309859-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00069	0.00827		<0.00010	<0.00010	0.0001
PL-01	ALS	2023-08-10	WP2319111	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0006	0.00568		<0.00010	<0.00010	0.00014
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011													
PL-01	Flett	2023-08-10	MTWATR082323JS1-013													
PL-01	ALS	2023-08-10	WP2319111-001													
PL-01	Flett	2023-10-10	MTWATR111923JS1-012													
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011													
PL-01	Flett	2023-10-10	MTWATR111923JS1-011													
PL-01	ALS	2023-10-10	WP2326292-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00267	0.0178		<0.00010	<0.00010	0.000112
PL-01	ALS	2024-02-13	WP2403718	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.007		<0.00010	<0.00010	0.000096
PL-01	ALS	2024-02-13	WP2403718	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00031	0.00637		<0.00010	<0.00010	0.000101
PL-01	Flett	2024-02-13	TMWATR022824CH1-010													
PL-01	Flett	2024-02-13	MTWATR030824JS1-009													
PL-01	ALS	2024-02-13	WP2403718-002													
PL-01	ALS	2024-02-13	WP2403718-001													
PL-01	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00088	0.0107		<0.00010	<0.00010	0.000076
PL-01	Flett	2024-05-20	TMWATR061924CH1-001													
PL-01	Flett	2024-05-20	MTWATR061024JS1-001													
PL-01	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00116	0.00577		<0.00010	<0.00010	0.000112
PL-01	Flett	2024-08-05	MTWATR091624JS1-011													
PL-01	Flett	2024-08-05	TMWATR091124CH1-010													
PL-01	Flett	2024-08-05	MTWATR091624JS1-010													
PL-01	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00062	0.00521		<0.00010	<0.00010	0.000094
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017													
PL-01	Flett	2024-10-08	MTWATR112724JS1-017													
PL-01	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00063	0.00743		<0.00010	<0.00010	0.000139
PL-01	Flett	2024-11-06	MTWATR120524JS1-011													
PL-01	Flett	2024-11-06	TMWATR112524CH1-012													
PL-01-B	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00059	0.00976		<0.00010	<0.00010	0.00009
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015													
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015													
PL-01-B	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00101	0.00584		<0.00010	<0.00010	0.000107
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009													
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008													
PL-01-B	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00071	0.0104		<0.00010	<0.00010	0.00014
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012													
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013													
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010													
PL-02	Flett	2023-05-26	MTWATR060823JS1-011													
PL-02	ALS	2023-05-26	WP2309859-002	0.00029	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00128	0.0104		<0.00010	<0.00010	0.000091

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
GRL-02-B	ALS	2024-10-07	WP2423685	0.000085	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
GRL-02-B	Flett	2024-10-07	TMWATR102524ZB2-002									
GRL-02-B	Flett	2024-10-07	MTWATR112624JS1-010									
GRL-03	ALS	2024-10-07	WP2423685	0.00006	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
GRL-03	Flett	2024-10-07	MTWATR112624JS1-004									
GRL-03	Flett	2024-10-07	TMWATR102224ZB2-004									
GRL-03-B	ALS	2024-10-07	WP2423685	0.000056	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
GRL-03-B	Flett	2024-10-07	TMWATR102524ZB2-005									
GRL-03-B	Flett	2024-10-07	MTWATR112624JS1-013									
PL-01	Flett	2023-05-26	MTWATR060823JS1-010									
PL-01	Flett	2023-05-26	TMWATR060923ZB1-009									
PL-01	Flett	2023-05-26	MTWATR060823JS1-009									
PL-01	ALS	2023-05-26	WP2309859-001	0.000118	<0.00050	0.00068			<0.0010	<0.0030	<0.00030	0.00026
PL-01	ALS	2023-08-10	WP2319111	0.000136	<0.00050	0.00081			<0.0010	<0.0030	<0.00030	<0.00020
PL-01	Flett	2023-08-10	TMWATR082323ZB1-011									
PL-01	Flett	2023-08-10	MTWATR082323JS1-013									
PL-01	ALS	2023-08-10	WP2319111-001									
PL-01	Flett	2023-10-10	MTWATR111923JS1-012									
PL-01	Flett	2023-10-10	TMWATR110223ZB1-011									
PL-01	Flett	2023-10-10	MTWATR111923JS1-011									
PL-01	ALS	2023-10-10	WP2326292-001	0.000141	0.00053	0.00129			<0.0010	<0.0030	0.00032	0.0004
PL-01	ALS	2024-02-13	WP2403718	0.00011	<0.00050	0.00066			0.0013	0.0033	<0.00030	<0.00020
PL-01	ALS	2024-02-13	WP2403718	0.000116	<0.00050	0.00064			0.0011	<0.0030	<0.00030	<0.00020
PL-01	Flett	2024-02-13	TMWATR022824CH1-010									
PL-01	Flett	2024-02-13	MTWATR030824JS1-009									
PL-01	ALS	2024-02-13	WP2403718-002									
PL-01	ALS	2024-02-13	WP2403718-001									
PL-01	ALS	2024-05-20	WP2412615	0.000097	<0.00050	0.00075			0.0011	<0.0030	<0.00030	0.00022
PL-01	Flett	2024-05-20	TMWATR061924CH1-001									
PL-01	Flett	2024-05-20	MTWATR061024JS1-001									
PL-01	ALS	2024-08-05	WP2419024	0.000127	0.00053	0.00083			<0.0010	<0.0030	<0.00030	0.00022
PL-01	Flett	2024-08-05	MTWATR091624JS1-011									
PL-01	Flett	2024-08-05	TMWATR091124CH1-010									
PL-01	Flett	2024-08-05	MTWATR091624JS1-010									
PL-01	ALS	2024-10-08	WP2424051	0.000098	<0.00050	0.00068			<0.0010	<0.0030	<0.00030	<0.00020
PL-01	Flett	2024-10-08	TMWATR102824ZB1-017									
PL-01	Flett	2024-10-08	MTWATR112724JS1-017									
PL-01	ALS	2024-11-06	WP2425806	0.000153	<0.00050	0.00077			<0.0010	<0.0030	<0.00030	0.00022
PL-01	Flett	2024-11-06	MTWATR120524JS1-011									
PL-01	Flett	2024-11-06	TMWATR112524CH1-012									
PL-01-B	ALS	2024-08-05	WP2419024	0.000115	<0.00050	0.00094			<0.0010	<0.0030	<0.00030	0.0003
PL-01-B	Flett	2024-08-05	TMWATR091124CH1-015									
PL-01-B	Flett	2024-08-05	MTWATR091624JS1-015									
PL-01-B	ALS	2024-10-08	WP2424051	0.000105	<0.00050	0.00074			<0.0010	<0.0030	<0.00030	0.00021
PL-01-B	Flett	2024-10-08	TMWATR102824ZB1-009									
PL-01-B	Flett	2024-10-08	MTWATR112724JS1-008									
PL-01-B	ALS	2024-11-06	WP2425806	0.000151	<0.00050	0.00087			0.0016	<0.0030	<0.00030	0.00032
PL-01-B	Flett	2024-11-06	MTWATR120524JS1-012									
PL-01-B	Flett	2024-11-06	TMWATR112524CH1-013									
PL-02	Flett	2023-05-26	TMWATR060923ZB1-010									
PL-02	Flett	2023-05-26	MTWATR060823JS1-011									
PL-02	ALS	2023-05-26	WP2309859-002	0.000111	<0.00050	0.00077			<0.0010	<0.0030	<0.00030	0.00029

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
PL-02	ALS	2023-08-10	WP2319111	7.17	7.65	21.4	4.2	40.5	<1.0	<1.0	<1.0	40.5	0.0629	0.343
PL-02	Flett	2023-08-10	MTWATR082323JS1-016											
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013											
PL-02	Flett	2023-08-10	MTWATR082323JS1-015											
PL-02	ALS	2023-08-10	WP2319111-002											
PL-02	ALS	2023-10-10	WP2326292-002	7.44	7.62	10.5	2.3	38.3	<1.0	<1.0	<1.0	38.3	0.0626	0.359
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012											
PL-02	Flett	2023-10-19	MTWATR111923JS1-013											
PL-02	ALS	2024-02-13	WP2403718	7.85	7.5	0.43	<2.0	41	<1.0	<1.0	<1.0	41	0.0147	0.0526
PL-02	Flett	2024-02-13	TMWATR022824CH1-011											
PL-02	Flett	2024-02-13	MTWATR030824JS1-010											
PL-02	ALS	2024-02-13	WP2403718-004											
PL-02	ALS	2024-05-20	WP2412615	7.62	7.57	13.6	<2.0	39	<1.0	<1.0	<1.0	39	0.0422	0.557
PL-02	Flett	2024-05-20	TMWATR061924CH1-002											
PL-02	Flett	2024-05-20	MTWATR061024JS1-002											
PL-02	ALS	2024-08-05	WP2419024	7.07	7.75	24.1	<2.0	39.7	<1.0	<1.0	<1.0	39.7	0.0434	0.132
PL-02	Flett	2024-08-05	TMWATR091124CH1-014											
PL-02	Flett	2024-08-05	MTWATR091624JS1-014											
PL-02	ALS	2024-10-08	WP2424051	7.75	7.59	8.37	<2.0	38.1	<1.0	<1.0	<1.0	38.1	0.0257	0.238
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012											
PL-02	Flett	2024-10-08	MTWATR112724JS1-011											
PL-02	ALS	2024-11-06	WP2425806	7.41	7.7	1.45	<2.0	42	<1.0	<1.0	<1.0	42	0.0269	0.171
PL-02	Flett	2024-11-06	MTWATR120524JS1-013											
PL-02	Flett	2024-11-06	TMWATR112524CH1-014											
PL-02-B	ALS	2024-08-05	WP2419024	6.68	7.6	22.6	<2.0	36.5	<1.0	<1.0	<1.0	36.5	0.0625	0.698
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012											
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011											
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012											
PL-02-B	ALS	2024-10-08	WP2424051	7.03	7.67	6.71	<2.0	44.4	<1.0	<1.0	<1.0	44.4	0.033	0.281
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005											
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005											
PL-02-B	ALS	2024-11-06	WP2425806	6.83	7.71	1.48	<2.0	42.3	<1.0	<1.0	<1.0	42.3	0.0263	0.203
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014											
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001											
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011											
PL-03	Flett	2023-05-26	MTWATR060823JS1-012											
PL-03	ALS	2023-05-26	WP2309859-003	7.54	7.64	13	<2.0	34.1	<1.0	<1.0	<1.0	34.1	0.0349	0.137
PL-03	ALS	2023-08-10	WP2319111	7.14	7.64	21.8	<2.0	36.6	<1.0	<1.0	<1.0	36.6	0.0137	0.0438
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010											
PL-03	Flett	2023-08-10	MTWATR082323JS1-012											
PL-03	ALS	2023-08-10	WP2319111-003											
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013											
PL-03	Flett	2023-10-10	MTWATR111923JS1-014											
PL-03	ALS	2023-10-10	WP2326292-003	7.49	7.61	13.3	2.5	37.1	<1.0	<1.0	<1.0	37.1	0.0165	0.102
PL-03	ALS	2024-02-14	WP2403955	8.01	7.51	0.4	2.3	37.8	<1.0	<1.0	<1.0	37.8	0.0122	0.0365
PL-03	Flett	2024-02-14	TMWATR022824CH1-012											
PL-03	Flett	2024-02-14	MTWATR030824JS1-011											
PL-03	ALS	2024-02-14	WP2403955-001											
PL-03	ALS	2024-05-20	WP2412615	7.6	7.56	11.1	<2.0	34.1	<1.0	<1.0	<1.0	34.1	0.0272	0.214
PL-03	Flett	2024-05-20	TMWATR061924CH1-003											
PL-03	Flett	2024-05-20	MTWATR061024JS1-003											
PL-03	ALS	2024-08-05	WP2419024	7.17	7.66	23.1	<2.0	33.8	<1.0	<1.0	<1.0	33.8	0.0258	0.0616

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
PL-02	ALS	2023-08-10	WP2319111			<0.0010	0.014	<0.00010	<0.00010	0.00121	0.0014	0.0118	0.0137	<0.000020	<0.000020
PL-02	Flett	2023-08-10	MTWATR082323JS1-016												
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013												
PL-02	Flett	2023-08-10	MTWATR082323JS1-015												
PL-02	ALS	2023-08-10	WP2319111-002		0.014										
PL-02	ALS	2023-10-10	WP2326292-002		0.0054	<0.0010		<0.00010	<0.00010	0.0018	0.00197	0.0106	0.0132	<0.000020	<0.000020
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012												
PL-02	Flett	2023-10-19	MTWATR111923JS1-013												
PL-02	ALS	2024-02-13	WP2403718			<0.0010	0.0104	0.00025	0.00025	0.00548	0.00567	0.00945	0.00988	<0.000020	<0.000020
PL-02	Flett	2024-02-13	TMWATR022824CH1-011												
PL-02	Flett	2024-02-13	MTWATR030824JS1-010												
PL-02	ALS	2024-02-13	WP2403718-004		0.0104										
PL-02	ALS	2024-05-20	WP2412615			<0.0010	0.0064	<0.00010	<0.00010	0.00098	0.00102	0.01	0.0151	<0.000020	0.00002
PL-02	Flett	2024-05-20	TMWATR061924CH1-002												
PL-02	Flett	2024-05-20	MTWATR061024JS1-002												
PL-02	ALS	2024-08-05	WP2419024			<0.0010	0.0131	<0.00010	<0.00010	0.00152	0.00162	0.0101	0.0108	<0.000020	<0.000020
PL-02	Flett	2024-08-05	TMWATR091124CH1-014												
PL-02	Flett	2024-08-05	MTWATR091624JS1-014												
PL-02	ALS	2024-10-08	WP2424051			<0.0010	0.0132	0.00015	0.00012	0.00432	0.00484	0.00925	0.0111	<0.000020	<0.000020
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012												
PL-02	Flett	2024-10-08	MTWATR112724JS1-011												
PL-02	ALS	2024-11-06	WP2425806			<0.0010	0.0333	<0.00010	<0.00010	0.00129	0.00227	0.0103	0.0113	<0.000020	<0.000020
PL-02	Flett	2024-11-06	MTWATR120524JS1-013												
PL-02	Flett	2024-11-06	TMWATR112524CH1-014												
PL-02-B	ALS	2024-08-05	WP2419024			<0.0010	0.0123	0.00013	0.00013	0.0035	0.0042	0.0106	0.0166	<0.000020	0.000033
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012												
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011												
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012												
PL-02-B	ALS	2024-10-08	WP2424051			<0.0010	0.0106	<0.00010	<0.00010	0.00269	0.00137	0.0106	0.0135	<0.000020	<0.000020
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005												
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005												
PL-02-B	ALS	2024-11-06	WP2425806			<0.0010	0.0108	<0.00010	<0.00010	0.00119	0.00152	0.0104	0.0115	<0.000020	<0.000020
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014												
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001												
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011												
PL-03	Flett	2023-05-26	MTWATR060823JS1-012												
PL-03	ALS	2023-05-26	WP2309859-003		<0.010	<0.0010		0.00011	0.00016	0.00235	0.00302	0.00741	0.0089	<0.000020	<0.000020
PL-03	ALS	2023-08-10	WP2319111			<0.0010	<0.010	0.00016	0.00017	0.00369	0.00396	0.00908	0.00885	<0.000020	<0.000020
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010												
PL-03	Flett	2023-08-10	MTWATR082323JS1-012												
PL-03	ALS	2023-08-10	WP2319111-003		<0.010										
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013												
PL-03	Flett	2023-10-10	MTWATR111923JS1-014												
PL-03	ALS	2023-10-10	WP2326292-003		0.0123	<0.0010		0.00016	0.00017	0.0058	0.00625	0.00858	0.00888	<0.000020	<0.000020
PL-03	ALS	2024-02-14	WP2403955			<0.0010	0.0068	0.0003	0.00028	0.00706	0.00748	0.00847	0.00933	<0.000020	<0.000020
PL-03	Flett	2024-02-14	TMWATR022824CH1-012												
PL-03	Flett	2024-02-14	MTWATR030824JS1-011												
PL-03	ALS	2024-02-14	WP2403955-001		0.0068										
PL-03	ALS	2024-05-20	WP2412615			<0.0010	<0.0050	0.00018	0.00023	0.00313	0.00413	0.00689	0.00884	<0.000020	<0.000020
PL-03	Flett	2024-05-20	TMWATR061924CH1-003												
PL-03	Flett	2024-05-20	MTWATR061024JS1-003												
PL-03	ALS	2024-08-05	WP2419024			<0.0010	0.0104	0.00017	0.00018	0.00377	0.00387	0.00856	0.00908	<0.000020	<0.000020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
PL-02	ALS	2023-08-10	WP2319111	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000065	12.3	12.4	12.4	<0.000010	0.000054		0.36
PL-02	Flett	2023-08-10	MTWATR082323JS1-016													
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013													
PL-02	Flett	2023-08-10	MTWATR082323JS1-015													
PL-02	ALS	2023-08-10	WP2319111-002													
PL-02	ALS	2023-10-10	WP2326292-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000056	11.1	11.3	10.6	<0.000010	0.000044		0.72
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012													
PL-02	Flett	2023-10-19	MTWATR111923JS1-013													
PL-02	ALS	2024-02-13	WP2403718	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13.5	13.4	11.7	<0.000010	<0.000010		2.52
PL-02	Flett	2024-02-13	TMWATR022824CH1-011													
PL-02	Flett	2024-02-13	MTWATR030824JS1-010													
PL-02	ALS	2024-02-13	WP2403718-004													
PL-02	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000065	12.4	12.4	16.3	<0.000010	0.000071		0.56
PL-02	Flett	2024-05-20	TMWATR061924CH1-002													
PL-02	Flett	2024-05-20	MTWATR061024JS1-002													
PL-02	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13	13	15.3	<0.000010	0.000024		0.48
PL-02	Flett	2024-08-05	TMWATR091124CH1-014													
PL-02	Flett	2024-08-05	MTWATR091624JS1-014													
PL-02	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000065	12	13.1	16.4	<0.000010	0.000035		1.48
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012													
PL-02	Flett	2024-10-08	MTWATR112724JS1-011													
PL-02	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13.5	13.4	15.6	<0.000010	0.00002		0.59
PL-02	Flett	2024-11-06	MTWATR120524JS1-013													
PL-02	Flett	2024-11-06	TMWATR112524CH1-014													
PL-02-B	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	0.0000084	0.0000166	12.4	12.8	14.4	0.000013	0.000124		1.31
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012													
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011													
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012													
PL-02-B	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000084	12.8	14.6	16.4	<0.000010	0.000037		0.44
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005													
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005													
PL-02-B	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13.6	13.6	15.6	<0.000010	0.000029		0.48
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014													
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001													
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011													
PL-03	Flett	2023-05-26	MTWATR060823JS1-012													
PL-03	ALS	2023-05-26	WP2309859-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.6	10.7	13.4	<0.000010	0.000014		1.2
PL-03	ALS	2023-08-10	WP2319111	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.6	11.4	12.6	<0.000010	<0.000010		1.33
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010													
PL-03	Flett	2023-08-10	MTWATR082323JS1-012													
PL-03	ALS	2023-08-10	WP2319111-003													
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013													
PL-03	Flett	2023-10-10	MTWATR111923JS1-014													
PL-03	ALS	2023-10-10	WP2326292-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	11.6	11.4	<0.000010	0.00001		1.5
PL-03	ALS	2024-02-14	WP2403955	<0.000050	<0.000050	<0.010	0.012	<0.0000050	<0.0000050	11.4	12.3	12.7	<0.000010	<0.000010		2.36
PL-03	Flett	2024-02-14	TMWATR022824CH1-012													
PL-03	Flett	2024-02-14	MTWATR030824JS1-011													
PL-03	ALS	2024-02-14	WP2403955-001													
PL-03	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000076	11.1	11.1	14.5	<0.000010	0.000028		1.62
PL-03	Flett	2024-05-20	TMWATR061924CH1-003													
PL-03	Flett	2024-05-20	MTWATR061024JS1-003													
PL-03	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.3	11.6	14.6	<0.000010	<0.000010		1.73

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
PL-02	ALS	2023-08-10	WP2319111	0.00014	0.0006	<0.00010	0.00014	87.4	0.00105	0.00132	<0.0010	<0.0010		<0.0010		
PL-02	Flett	2023-08-10	MTWATR082323JS1-016													
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013													
PL-02	Flett	2023-08-10	MTWATR082323JS1-015													
PL-02	ALS	2023-08-10	WP2319111-002													
PL-02	ALS	2023-10-10	WP2326292-002	0.00013	0.00063	<0.00010	0.00015	84.3	0.001	0.0013	<0.0010	<0.0010		<0.0010		
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012													
PL-02	Flett	2023-10-19	MTWATR111923JS1-013													
PL-02	ALS	2024-02-13	WP2403718	0.00014	0.00027	<0.00010	<0.00010	103	0.0012	0.0013	<0.0010	<0.0010		<0.0010		
PL-02	Flett	2024-02-13	TMWATR022824CH1-011													
PL-02	Flett	2024-02-13	MTWATR030824JS1-010													
PL-02	ALS	2024-02-13	WP2403718-004													
PL-02	ALS	2024-05-20	WP2412615	0.00016	0.00115	<0.00010	0.00024	85.7	0.00098	0.00158	<0.0010	<0.0010		<0.0010		
PL-02	Flett	2024-05-20	TMWATR061924CH1-002													
PL-02	Flett	2024-05-20	MTWATR061024JS1-002													
PL-02	ALS	2024-08-05	WP2419024	0.00019	0.0004	<0.00010	<0.00010	87.3	0.00103	0.00112	0.0016	0.0013		0.0014		
PL-02	Flett	2024-08-05	TMWATR091124CH1-014													
PL-02	Flett	2024-08-05	MTWATR091624JS1-014													
PL-02	ALS	2024-10-08	WP2424051	0.00017	0.00056	<0.00010	0.00013	90.6	0.00117	0.00154	<0.0010	<0.0010		<0.0010		
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012													
PL-02	Flett	2024-10-08	MTWATR112724JS1-011													
PL-02	ALS	2024-11-06	WP2425806	0.00026	0.00039	<0.00010	<0.00010	92.4	0.00101	0.00119	<0.0010	<0.0010		<0.0010		
PL-02	Flett	2024-11-06	MTWATR120524JS1-013													
PL-02	Flett	2024-11-06	TMWATR112524CH1-014													
PL-02-B	ALS	2024-08-05	WP2419024	0.0002	0.00158	<0.00010	0.00049	86.2	0.0012	0.002	0.0014	0.0012		0.0013		
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012													
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011													
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012													
PL-02-B	ALS	2024-10-08	WP2424051	0.00018	0.00064	<0.00010	0.00014	95.4	0.00112	0.00143	<0.0010	<0.0010		<0.0010		
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005													
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005													
PL-02-B	ALS	2024-11-06	WP2425806	0.00016	0.00058	<0.00010	<0.00010	92.7	0.00097	0.00117	<0.0010	<0.0010		<0.0010		
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014													
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001													
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011													
PL-03	Flett	2023-05-26	MTWATR060823JS1-012													
PL-03	ALS	2023-05-26	WP2309859-003	<0.00010	0.00029	<0.00010	<0.00010	82.5	0.00098	0.00116	<0.0010	<0.0010		<0.0010		
PL-03	ALS	2023-08-10	WP2319111	0.00012	0.00019	<0.00010	<0.00010	86.1	0.00103	0.0011	<0.0010	<0.0010		<0.0010		
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010													
PL-03	Flett	2023-08-10	MTWATR082323JS1-012													
PL-03	ALS	2023-08-10	WP2319111-003													
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013													
PL-03	Flett	2023-10-10	MTWATR111923JS1-014													
PL-03	ALS	2023-10-10	WP2326292-003	0.00016	0.00032	<0.00010	<0.00010	86.5	0.00108	0.00129	<0.0010	<0.0010		<0.0010		
PL-03	ALS	2024-02-14	WP2403955	<0.00050	<0.00050	<0.00010	<0.00010	96.7	0.00128	0.00145	<0.0010	<0.0010		<0.0010		
PL-03	Flett	2024-02-14	TMWATR022824CH1-012													
PL-03	Flett	2024-02-14	MTWATR030824JS1-011													
PL-03	ALS	2024-02-14	WP2403955-001	0.00012	0.00025											
PL-03	ALS	2024-05-20	WP2412615	0.00014	0.0005	<0.00010	0.00014	80.9	0.00102	0.00137	<0.0010	<0.0010		<0.0010		
PL-03	Flett	2024-05-20	TMWATR061924CH1-003													
PL-03	Flett	2024-05-20	MTWATR061024JS1-003													
PL-03	ALS	2024-08-05	WP2419024	0.00018	0.0002	<0.00010	<0.00010	84.7	0.00131	0.00131	0.0015	0.0014		0.0017		

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
PL-02	ALS	2023-08-10	WP2319111	41.2	43.2	0.045	0.3	<0.000050	0.000131	<0.0010	0.0011	2.55	2.98	0.00152	0.019
PL-02	Flett	2023-08-10	MTWATR082323JS1-016												
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013												
PL-02	Flett	2023-08-10	MTWATR082323JS1-015												
PL-02	ALS	2023-08-10	WP2319111-002												
PL-02	ALS	2023-10-10	WP2326292-002	38.5	40.1	0.045	0.322	<0.000050	0.000164	<0.0010	0.0011	2.61	2.89	0.0012	0.0138
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012												
PL-02	Flett	2023-10-19	MTWATR111923JS1-013												
PL-02	ALS	2024-02-13	WP2403718	47	47.3	0.039	0.086	<0.000050	0.000056	0.0024	0.0021	3.24	3.36	0.0025	0.00573
PL-02	Flett	2024-02-13	TMWATR022824CH1-011												
PL-02	Flett	2024-02-13	MTWATR030824JS1-010												
PL-02	ALS	2024-02-13	WP2403718-004												
PL-02	ALS	2024-05-20	WP2412615	43.4	43.9	0.08	0.595	<0.000050	0.000214	0.0016	0.0017	3.03	3.14	0.00139	0.0154
PL-02	Flett	2024-05-20	TMWATR061924CH1-002												
PL-02	Flett	2024-05-20	MTWATR061024JS1-002												
PL-02	ALS	2024-08-05	WP2419024	44.3	44.5	0.065	0.175	<0.000050	0.000079	0.0011	0.0018	2.88	2.93	0.00148	0.0116
PL-02	Flett	2024-08-05	TMWATR091124CH1-014												
PL-02	Flett	2024-08-05	MTWATR091624JS1-014												
PL-02	ALS	2024-10-08	WP2424051	42.6	45.4	0.069	0.285	<0.000050	0.000138	<0.0010	0.0015	3.07	3.07	0.00112	0.0116
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012												
PL-02	Flett	2024-10-08	MTWATR112724JS1-011												
PL-02	ALS	2024-11-06	WP2425806	46.6	47	0.103	0.221	<0.000050	0.000071	<0.0010	0.0013	3.12	3.29	0.00263	0.00817
PL-02	Flett	2024-11-06	MTWATR120524JS1-013												
PL-02	Flett	2024-11-06	TMWATR112524CH1-014												
PL-02-B	ALS	2024-08-05	WP2419024	42.6	44.8	0.147	0.977	0.000077	0.000507	0.0015	0.003	2.82	3.11	0.102	0.0693
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012												
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011												
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012												
PL-02-B	ALS	2024-10-08	WP2424051	45	50.7	0.096	0.372	<0.000050	0.000145	<0.0010	0.0015	3.16	3.46	0.0019	0.0144
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005												
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005												
PL-02-B	ALS	2024-11-06	WP2425806	46.9	48	0.094	0.265	<0.000050	0.000084	<0.0010	0.0013	3.14	3.4	0.00261	0.00957
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014												
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001												
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011												
PL-03	Flett	2023-05-26	MTWATR060823JS1-012												
PL-03	ALS	2023-05-26	WP2309859-003	37.1	38.2	0.065	0.181	<0.000050	0.000066	0.0013	0.0012	2.59	2.78	0.00087	0.00964
PL-03	ALS	2023-08-10	WP2319111	39.4	40	0.022	0.05	<0.000050	<0.000050	<0.0010	<0.0010	2.53	2.81	0.00141	0.00464
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010												
PL-03	Flett	2023-08-10	MTWATR082323JS1-012												
PL-03	ALS	2023-08-10	WP2319111-003												
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013												
PL-03	Flett	2023-10-10	MTWATR111923JS1-014												
PL-03	ALS	2023-10-10	WP2326292-003	39.8	41.5	0.024	0.109	<0.000050	0.000064	<0.0010	0.0011	2.75	3.04	0.0006	0.00889
PL-03	ALS	2024-02-14	WP2403955	41	43.4	0.024	0.055	<0.000050	<0.000050	0.0011	0.0022	3.04	3.09	0.00146	0.00387
PL-03	Flett	2024-02-14	TMWATR022824CH1-012												
PL-03	Flett	2024-02-14	MTWATR030824JS1-011												
PL-03	ALS	2024-02-14	WP2403955-001												
PL-03	ALS	2024-05-20	WP2412615	39.5	39	0.056	0.272	<0.000050	0.000102	0.0018	0.0014	2.86	2.74	0.00096	0.0108
PL-03	Flett	2024-05-20	TMWATR061924CH1-003												
PL-03	Flett	2024-05-20	MTWATR061024JS1-003												
PL-03	ALS	2024-08-05	WP2419024	39.8	40.4	0.045	0.076	<0.000050	<0.000050	0.0012	0.0021	2.81	2.77	0.00074	0.00328

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
PL-02	ALS	2023-08-10	WP2319111	<0.0000050		<0.0000050		0.000299	0.00026	<0.00050	0.00065	<0.0050	<0.0051	<0.0010	
PL-02	Flett	2023-08-10	MTWATR082323JS1-016		0.021										
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013				0.93								
PL-02	Flett	2023-08-10	MTWATR082323JS1-015		0.021										
PL-02	ALS	2023-08-10	WP2319111-002												
PL-02	ALS	2023-10-10	WP2326292-002	<0.0000050		<0.0000050		0.000211	0.000268	<0.00050	0.0007	0.0358	0.0358	<0.0010	
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012				0.7								
PL-02	Flett	2023-10-19	MTWATR111923JS1-013		0.019										
PL-02	ALS	2024-02-13	WP2403718	<0.0000050		<0.0000050		0.000228	0.00021	0.001	0.00099	0.0626	0.0626	<0.0010	
PL-02	Flett	2024-02-13	TMWATR022824CH1-011				0.62								
PL-02	Flett	2024-02-13	MTWATR030824JS1-010		0.037										
PL-02	ALS	2024-02-13	WP2403718-004												
PL-02	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000189	0.000197	<0.00050	0.00108	<0.0050	<0.0051	<0.0010	
PL-02	Flett	2024-05-20	TMWATR061924CH1-002				3.33								
PL-02	Flett	2024-05-20	MTWATR061024JS1-002		0.067										
PL-02	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000209	0.000191	<0.00050	0.00061	<0.0050	<0.0051	<0.0010	
PL-02	Flett	2024-08-05	TMWATR091124CH1-014				1.28								
PL-02	Flett	2024-08-05	MTWATR091624JS1-014		0.051										
PL-02	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.000226	0.000216	0.00087	0.00099	0.0427	0.0439	0.0012	<0.030
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012				1.52								
PL-02	Flett	2024-10-08	MTWATR112724JS1-011		0.044										
PL-02	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.000216	0.000229	<0.00050	0.00066	0.0188	0.0188	<0.0010	<0.030
PL-02	Flett	2024-11-06	MTWATR120524JS1-013		0.049										
PL-02	Flett	2024-11-06	TMWATR112524CH1-014				1.61								
PL-02-B	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000236	0.000139	0.00076	0.00191	0.0264	0.0276	0.0012	
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012				4.89								
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011				5.05								
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012		0.065										
PL-02-B	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.000223	0.000232	0.00062	0.00073	0.0239	0.0239	<0.0010	<0.030
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005		0.064										
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005				2.49								
PL-02-B	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.000204	0.00022	<0.00050	0.00068	0.0084	0.0084	<0.0010	<0.030
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014		0.059										
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001				2.3								
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011				1.7								
PL-03	Flett	2023-05-26	MTWATR060823JS1-012		0.041										
PL-03	ALS	2023-05-26	WP2309859-003	<0.0000050		<0.0000050		0.000156	0.000187	0.00058	0.00082	0.0142	0.0142	<0.0010	
PL-03	ALS	2023-08-10	WP2319111	<0.0000050		<0.0000050		0.000204	0.000242	0.0007	0.00077	<0.0050	<0.0051	<0.0010	
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010				0.6								
PL-03	Flett	2023-08-10	MTWATR082323JS1-012		0.024										
PL-03	ALS	2023-08-10	WP2319111-003												
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013				0.78								
PL-03	Flett	2023-10-10	MTWATR111923JS1-014		0.016										
PL-03	ALS	2023-10-10	WP2326292-003	<0.0000050		<0.0000050		0.000227	0.000227	0.0007	0.0009	0.0437	0.0437	<0.0010	
PL-03	ALS	2024-02-14	WP2403955	<0.0000050		<0.0000050		0.000214	0.000229	0.00097	0.00116	0.0716	0.073	0.0014	
PL-03	Flett	2024-02-14	TMWATR022824CH1-012				0.86								
PL-03	Flett	2024-02-14	MTWATR030824JS1-011		0.026										
PL-03	ALS	2024-02-14	WP2403955-001												
PL-03	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000173	0.000185	0.00083	0.00113	0.0075	0.0075	<0.0010	
PL-03	Flett	2024-05-20	TMWATR061924CH1-003				1.85								
PL-03	Flett	2024-05-20	MTWATR061024JS1-003		0.043										
PL-03	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000198	0.000196	0.00088	0.001	<0.0050	<0.0051	<0.0010	

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Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
PL-02	ALS	2023-08-10	WP2319111	<0.030	<0.030	0.0298	<0.050	0.983	1.09		0.0023	0.00283	0.000087	0.000097	1.47
PL-02	Flett	2023-08-10	MTWATR082323JS1-016												
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013												
PL-02	Flett	2023-08-10	MTWATR082323JS1-015												
PL-02	ALS	2023-08-10	WP2319111-002				<0.030								
PL-02	ALS	2023-10-10	WP2326292-002	<0.030		0.0284	0.032	1.01	1.12		0.00186	0.00256	0.000076	0.000082	1.22
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012												
PL-02	Flett	2023-10-19	MTWATR111923JS1-013												
PL-02	ALS	2024-02-13	WP2403718	<0.030	<0.030	0.0216	<0.050	1.13	1.13		0.00163	0.00181	0.000092	0.00009	1.72
PL-02	Flett	2024-02-13	TMWATR022824CH1-011												
PL-02	Flett	2024-02-13	MTWATR030824JS1-010												
PL-02	ALS	2024-02-13	WP2403718-004				<0.03								
PL-02	ALS	2024-05-20	WP2412615	<0.030	0.031	0.0331	<0.050	1.07	1.14		0.00184	0.0026	0.00006	<0.000050	1.7
PL-02	Flett	2024-05-20	TMWATR061924CH1-002												
PL-02	Flett	2024-05-20	MTWATR061024JS1-002												
PL-02	ALS	2024-08-05	WP2419024	<0.030	<0.030	0.0248	<0.050	0.803	0.872		0.00199	0.00222	0.000134	0.000083	1.25
PL-02	Flett	2024-08-05	TMWATR091124CH1-014												
PL-02	Flett	2024-08-05	MTWATR091624JS1-014												
PL-02	ALS	2024-10-08	WP2424051		<0.030	0.0311		0.929	1.04		0.00164	0.00211	0.000186	<0.000050	1.76
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012												
PL-02	Flett	2024-10-08	MTWATR112724JS1-011												
PL-02	ALS	2024-11-06	WP2425806		<0.030	0.021		0.926	1.02		0.00175	0.002	0.000054	0.000096	1.52
PL-02	Flett	2024-11-06	MTWATR120524JS1-013												
PL-02	Flett	2024-11-06	TMWATR112524CH1-014												
PL-02-B	ALS	2024-08-05	WP2419024	<0.030	0.075	0.0413	0.075	0.897	1.06		0.00224	0.00336	0.000136	0.0002	1.82
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012												
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011												
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012												
PL-02-B	ALS	2024-10-08	WP2424051		<0.030	0.0241		0.95	1.04		0.00181	0.00226	0.000107	<0.000050	1.75
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005												
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005												
PL-02-B	ALS	2024-11-06	WP2425806		<0.030	0.0216		0.918	1.01		0.00168	0.00205	0.000095	0.000078	1.57
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014												
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001												
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011												
PL-03	Flett	2023-05-26	MTWATR060823JS1-012												
PL-03	ALS	2023-05-26	WP2309859-003	<0.030		0.0168	<0.030	0.923	1.06		0.0014	0.00166	0.000102	0.000108	1.4
PL-03	ALS	2023-08-10	WP2319111	<0.030	<0.030	0.0144	<0.050	0.957	1		0.00171	0.00174	0.000086	0.000096	1.31
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010												
PL-03	Flett	2023-08-10	MTWATR082323JS1-012												
PL-03	ALS	2023-08-10	WP2319111-003				<0.030								
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013												
PL-03	Flett	2023-10-10	MTWATR111923JS1-014												
PL-03	ALS	2023-10-10	WP2326292-003	<0.030		0.0258	0.031	1.03	1.07		0.00173	0.00184	0.000103	0.000123	1.5
PL-03	ALS	2024-02-14	WP2403955	<0.050	<0.030	0.0217	<0.050	1.21	1.18		0.0018	0.00172	0.000065	0.000099	1.4
PL-03	Flett	2024-02-14	TMWATR022824CH1-012												
PL-03	Flett	2024-02-14	MTWATR030824JS1-011												
PL-03	ALS	2024-02-14	WP2403955-001	<0.030			<0.03								
PL-03	ALS	2024-05-20	WP2412615	<0.030	<0.030	0.0307	<0.050	0.989	1		0.00148	0.00186	0.000092	<0.000050	1.68
PL-03	Flett	2024-05-20	TMWATR061924CH1-003												
PL-03	Flett	2024-05-20	MTWATR061024JS1-003												
PL-03	ALS	2024-08-05	WP2419024	<0.030	<0.030	0.0155	<0.050	0.938	1		0.00176	0.00186	0.000096	0.000084	1.52

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
PL-02	ALS	2023-08-10	WP2319111	2.09	<0.000010	<0.000010	1.15	1.32	61	7.5	0.0235	0.0257	0.73	0.62	1.86	<0.00020
PL-02	Flett	2023-08-10	MTWATR082323JS1-016													
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013													
PL-02	Flett	2023-08-10	MTWATR082323JS1-015													
PL-02	ALS	2023-08-10	WP2319111-002													
PL-02	ALS	2023-10-10	WP2326292-002	1.85	<0.000010	<0.000010	1.38	1.46	58.6	6.6	0.0245	0.0241	1.02	0.98	2	<0.00020
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012													
PL-02	Flett	2023-10-19	MTWATR111923JS1-013													
PL-02	ALS	2024-02-13	WP2403718	1.91	<0.000010	<0.000010	2.46	2.5	77.7	1	0.0317	0.0303	1.66	1.82	4.28	<0.00020
PL-02	Flett	2024-02-13	TMWATR022824CH1-011													
PL-02	Flett	2024-02-13	MTWATR030824JS1-010													
PL-02	ALS	2024-02-13	WP2403718-004													
PL-02	ALS	2024-05-20	WP2412615	2.69	<0.000010	<0.000010	1.39	1.47	87.2	14	0.023	0.0232	0.82	0.73	1.5	<0.00020
PL-02	Flett	2024-05-20	TMWATR061924CH1-002													
PL-02	Flett	2024-05-20	MTWATR061024JS1-002													
PL-02	ALS	2024-08-05	WP2419024	1.5	<0.000010	<0.000010	1.28	1.39	65	4.1	0.0244	0.0258	0.81	0.95	2	<0.00020
PL-02	Flett	2024-08-05	TMWATR091124CH1-014													
PL-02	Flett	2024-08-05	MTWATR091624JS1-014													
PL-02	ALS	2024-10-08	WP2424051	2.24	<0.000010	<0.000010	1.83	1.91	83.5	5.7	0.0259	0.0284	1.12	1.34	3.55	<0.00020
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012													
PL-02	Flett	2024-10-08	MTWATR112724JS1-011													
PL-02	ALS	2024-11-06	WP2425806	1.91	<0.000010	<0.000010	1.38	1.48	85.3	2.3	0.0255	0.0252	0.71	1.04	2.07	<0.00020
PL-02	Flett	2024-11-06	MTWATR120524JS1-013													
PL-02	Flett	2024-11-06	TMWATR112524CH1-014													
PL-02-B	ALS	2024-08-05	WP2419024	2.78	<0.000010	<0.000010	1.69	1.86	66.7	78.9	0.0246	0.0268	1.15	1.4	3.27	<0.00020
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012													
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011													
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012													
PL-02-B	ALS	2024-10-08	WP2424051	2.31	<0.000010	<0.000010	1.7	1.44	85.9	6.3	0.0261	0.0275	0.82	0.99	2.01	<0.00020
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005													
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005													
PL-02-B	ALS	2024-11-06	WP2425806	1.96	<0.000010	<0.000010	1.36	1.44	81	9.8	0.0249	0.025	0.77	0.82	1.9	<0.00020
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014													
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001													
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011													
PL-03	Flett	2023-05-26	MTWATR060823JS1-012													
PL-03	ALS	2023-05-26	WP2309859-003	1.82	<0.000010	<0.000010	1.57	1.73	62	2.5	0.0224	0.0262	0.8	0.75	2.74	<0.00020
PL-03	ALS	2023-08-10	WP2319111	1.46	<0.000010	<0.000010	1.6	1.69	70	1.6	0.0255	0.025	1.05	1.05	3.07	<0.00020
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010													
PL-03	Flett	2023-08-10	MTWATR082323JS1-012													
PL-03	ALS	2023-08-10	WP2319111-003													
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013													
PL-03	Flett	2023-10-10	MTWATR111923JS1-014													
PL-03	ALS	2023-10-10	WP2326292-003	1.73	<0.000010	<0.000010	1.78	1.91	55.9	3.4	0.0256	0.0264	1.23	1.46	2.85	<0.00020
PL-03	ALS	2024-02-14	WP2403955	1.65	<0.000010	<0.000010	2.47	2.66	62.2	1.4	0.0297	0.0317	1.74	2.84	4.88	<0.00020
PL-03	Flett	2024-02-14	TMWATR022824CH1-012													
PL-03	Flett	2024-02-14	MTWATR030824JS1-011													
PL-03	ALS	2024-02-14	WP2403955-001													
PL-03	ALS	2024-05-20	WP2412615	2.1	<0.000010	<0.000010	2	2	76.6	4.7	0.0256	0.0258	1.38	1.4	3.5	<0.00020
PL-03	Flett	2024-05-20	TMWATR061924CH1-003													
PL-03	Flett	2024-05-20	MTWATR061024JS1-003													
PL-03	ALS	2024-08-05	WP2419024	1.65	<0.000010	<0.000010	2.05	2.02	62.7	1.2	0.0256	0.0266	1.54	1.49	3.95	<0.00020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
PL-02	ALS	2023-08-10	WP2319111	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00168	0.0111		<0.00010	<0.00010	0.000083
PL-02	Flett	2023-08-10	MTWATR082323JS1-016													
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013													
PL-02	Flett	2023-08-10	MTWATR082323JS1-015													
PL-02	ALS	2023-08-10	WP2319111-002													
PL-02	ALS	2023-10-10	WP2326292-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00164	0.0123		<0.00010	<0.00010	0.000078
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012													
PL-02	Flett	2023-10-19	MTWATR111923JS1-013													
PL-02	ALS	2024-02-13	WP2403718	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00041	0.00216		<0.00010	<0.00010	0.00009
PL-02	Flett	2024-02-13	TMWATR022824CH1-011													
PL-02	Flett	2024-02-13	MTWATR030824JS1-010													
PL-02	ALS	2024-02-13	WP2403718-004													
PL-02	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00107	0.0221		<0.00010	<0.00010	0.000112
PL-02	Flett	2024-05-20	TMWATR061924CH1-002													
PL-02	Flett	2024-05-20	MTWATR061024JS1-002													
PL-02	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00128	0.00559		<0.00010	<0.00010	0.000082
PL-02	Flett	2024-08-05	TMWATR091124CH1-014													
PL-02	Flett	2024-08-05	MTWATR091624JS1-014													
PL-02	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00077	0.00925		<0.00010	<0.00010	0.000107
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012													
PL-02	Flett	2024-10-08	MTWATR112724JS1-011													
PL-02	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00088	0.00714		<0.00010	<0.00010	0.000102
PL-02	Flett	2024-11-06	MTWATR120524JS1-013													
PL-02	Flett	2024-11-06	TMWATR112524CH1-014													
PL-02-B	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	0.000012	<0.00010	0.00011	<0.00010	<0.00010	0.00297	0.029		<0.00010	<0.00010	0.000086
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012													
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011													
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012													
PL-02-B	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00104	0.0115		<0.00010	<0.00010	0.000119
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005													
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005													
PL-02-B	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00089	0.0083		<0.00010	<0.00010	0.0001
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014													
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001													
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011													
PL-03	Flett	2023-05-26	MTWATR060823JS1-012													
PL-03	ALS	2023-05-26	WP2309859-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00084	0.00481		<0.00010	<0.00010	0.000087
PL-03	ALS	2023-08-10	WP2319111	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00033	0.00128		<0.00010	<0.00010	0.00009
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010													
PL-03	Flett	2023-08-10	MTWATR082323JS1-012													
PL-03	ALS	2023-08-10	WP2319111-003													
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013													
PL-03	Flett	2023-10-10	MTWATR111923JS1-014													
PL-03	ALS	2023-10-10	WP2326292-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00037	0.00383		<0.00010	<0.00010	0.000084
PL-03	ALS	2024-02-14	WP2403955	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00102		<0.00010	<0.00010	0.000088
PL-03	Flett	2024-02-14	TMWATR022824CH1-012													
PL-03	Flett	2024-02-14	MTWATR030824JS1-011													
PL-03	ALS	2024-02-14	WP2403955-001													
PL-03	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00074	0.0098		<0.00010	<0.00010	0.000087
PL-03	Flett	2024-05-20	TMWATR061924CH1-003													
PL-03	Flett	2024-05-20	MTWATR061024JS1-003													
PL-03	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00067	0.00174		<0.00010	<0.00010	0.000094

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
PL-02	ALS	2023-08-10	WP2319111	0.000092	0.00057	0.00106			<0.0010	<0.0030	<0.00030	0.00022
PL-02	Flett	2023-08-10	MTWATR082323JS1-016									
PL-02	Flett	2023-08-10	TMWATR082323ZB1-013									
PL-02	Flett	2023-08-10	MTWATR082323JS1-015									
PL-02	ALS	2023-08-10	WP2319111-002									
PL-02	ALS	2023-10-10	WP2326292-002	0.000092	<0.00050	0.001			<0.0010	<0.0030	<0.00030	<0.00020
PL-02	Flett	2023-10-19	TMWATR110223ZB1-012									
PL-02	Flett	2023-10-19	MTWATR111923JS1-013									
PL-02	ALS	2024-02-13	WP2403718	0.00009	<0.00050	<0.00050			0.0022	<0.0030	<0.00030	<0.00020
PL-02	Flett	2024-02-13	TMWATR022824CH1-011									
PL-02	Flett	2024-02-13	MTWATR030824JS1-010									
PL-02	ALS	2024-02-13	WP2403718-004									
PL-02	ALS	2024-05-20	WP2412615	0.00015	<0.00050	0.00136			<0.0010	<0.0030	<0.00030	0.00035
PL-02	Flett	2024-05-20	TMWATR061924CH1-002									
PL-02	Flett	2024-05-20	MTWATR061024JS1-002									
PL-02	ALS	2024-08-05	WP2419024	0.000088	<0.00050	0.00069			<0.0010	<0.0030	<0.00030	0.00021
PL-02	Flett	2024-08-05	TMWATR091124CH1-014									
PL-02	Flett	2024-08-05	MTWATR091624JS1-014									
PL-02	ALS	2024-10-08	WP2424051	0.000134	<0.00050	0.00099			<0.0010	<0.0030	<0.00030	0.00026
PL-02	Flett	2024-10-08	TMWATR102824ZB1-012									
PL-02	Flett	2024-10-08	MTWATR112724JS1-011									
PL-02	ALS	2024-11-06	WP2425806	0.000109	<0.00050	0.00078			<0.0010	<0.0030	<0.00030	0.00028
PL-02	Flett	2024-11-06	MTWATR120524JS1-013									
PL-02	Flett	2024-11-06	TMWATR112524CH1-014									
PL-02-B	ALS	2024-08-05	WP2419024	0.000164	0.00074	0.0019			<0.0010	0.0037	<0.00030	0.00042
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-012									
PL-02-B	Flett	2024-08-05	TMWATR091124CH1-011									
PL-02-B	Flett	2024-08-05	MTWATR091624JS1-012									
PL-02-B	ALS	2024-10-08	WP2424051	0.000131	0.00056	0.00102			<0.0010	<0.0030	<0.00030	0.00034
PL-02-B	Flett	2024-10-08	MTWATR112624JS1-005									
PL-02-B	Flett	2024-10-08	TMWATR102224ZB2-005									
PL-02-B	ALS	2024-11-06	WP2425806	0.000104	<0.00050	0.00079			<0.0010	<0.0030	<0.00030	0.00027
PL-02-B	Flett	2024-11-06	MTWATR120524JS1-014									
PL-02-B	Flett	2024-11-06	TMWATR112024CH5-001									
PL-03	Flett	2023-05-26	TMWATR060923ZB1-011									
PL-03	Flett	2023-05-26	MTWATR060823JS1-012									
PL-03	ALS	2023-05-26	WP2309859-003	0.000107	<0.00050	0.00051			<0.0010	<0.0030	<0.00030	0.00021
PL-03	ALS	2023-08-10	WP2319111	0.000083	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
PL-03	Flett	2023-08-10	TMWATR082323ZB1-010									
PL-03	Flett	2023-08-10	MTWATR082323JS1-012									
PL-03	ALS	2023-08-10	WP2319111-003									
PL-03	Flett	2023-10-10	TMWATR110223ZB1-013									
PL-03	Flett	2023-10-10	MTWATR111923JS1-014									
PL-03	ALS	2023-10-10	WP2326292-003	0.000093	<0.00050	0.00069			<0.0010	<0.0030	<0.00030	<0.00020
PL-03	ALS	2024-02-14	WP2403955	0.000095	<0.00050	0.00071			0.0029	<0.0030	<0.00030	<0.00020
PL-03	Flett	2024-02-14	TMWATR022824CH1-012									
PL-03	Flett	2024-02-14	MTWATR030824JS1-011									
PL-03	ALS	2024-02-14	WP2403955-001									
PL-03	ALS	2024-05-20	WP2412615	0.000101	<0.00050	0.00065			<0.0010	<0.0030	<0.00030	0.00021
PL-03	Flett	2024-05-20	TMWATR061924CH1-003									
PL-03	Flett	2024-05-20	MTWATR061024JS1-003									
PL-03	ALS	2024-08-05	WP2419024	0.000092	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009											
PL-03	Flett	2024-08-05	MTWATR091824JS1-005											
PL-03	ALS	2024-10-08	WP2424051	7.84	7.59	10.8	<2.0	35.6	<1.0	<1.0	<1.0	35.6	0.0142	0.0914
PL-03	Flett	2024-10-08	MTWATR112624JS1-003											
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003											
PL-03	ALS	2024-11-06	WP2425806	7.14	7.61	3	<2.0	37	<1.0	<1.0	<1.0	37	0.0165	0.133
PL-03	Flett	2024-11-06	MTWATR120524JS1-015											
PL-03	Flett	2024-11-06	TMWATR112524CH1-015											
PL-03-B	ALS	2024-08-05	WP2419024	6.41	7.54	20	<2.0	33.6	<1.0	<1.0	<1.0	33.6	0.0399	0.239
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009											
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009											
PL-03-B	ALS	2024-10-08	WP2424051	7	7.6	9.66	<2.0	35.7	<1.0	<1.0	<1.0	35.7	0.0135	0.135
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021											
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021											
PL-03-B	ALS	2024-11-06	WP2425806	6.63	7.71	2.86	<2.0	39.8	<1.0	<1.0	<1.0	39.8	0.0185	0.123
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016											
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016											
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012											
PL-04	Flett	2023-05-26	MTWATR060823JS1-013											
PL-04	ALS	2023-05-26	WP2309859-004	7.8	7.65	11.4	2.1	34.5	<1.0	<1.0	<1.0	34.5	0.0258	0.0955
PL-04	ALS	2023-08-10	WP2319111	7.29	7.7	21.4	2.2	36	<1.0	<1.0	<1.0	36	0.0115	0.0417
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009											
PL-04	Flett	2023-08-10	MTWATR082323JS1-011											
PL-04	ALS	2023-08-10	WP2319111-004											
PL-04	ALS	2023-10-10	WP2326292-004	7.61	7.58	13.3	2.4	37.3	<1.0	<1.0	<1.0	37.3	0.0162	0.086
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014											
PL-04	Flett	2023-10-19	MTWATR111923JS1-015											
PL-04	ALS	2024-02-14	WP2403955	8.02	7.61	<0.10	2	36.9	<1.0	<1.0	<1.0	36.9	0.0157	0.0322
PL-04	Flett	2024-02-14	TMWATR022824CH1-013											
PL-04	Flett	2024-02-14	MTWATR030824JS1-012											
PL-04	ALS	2024-02-14	WP2403955-002											
PL-04	ALS	2024-05-20	WP2412615	7.75	7.53	9.69	<2.0	36.3	<1.0	<1.0	<1.0	36.3	0.0241	0.0854
PL-04	Flett	2024-05-20	TMWATR061924CH1-004											
PL-04	Flett	2024-05-20	MTWATR061024JS1-004											
PL-04	ALS	2024-08-05	WP2419024	7.19	7.67	23.2	<2.0	33.6	<1.0	<1.0	<1.0	33.6	0.0258	0.0542
PL-04	Flett	2024-08-05	TMWATR091224CH1-001											
PL-04	Flett	2024-08-05	MTWATR091624JS1-017											
PL-04	ALS	2024-10-08	WP2424051	7.71	7.58	10.3	<2.0	35.9	<1.0	<1.0	<1.0	35.9	0.0154	0.0846
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011											
PL-04	Flett	2024-10-08	MTWATR112724JS1-010											
PL-04-B	ALS	2024-08-05	WP2419024	7.03	7.6	22.8	<2.0	33.5	<1.0	<1.0	<1.0	33.5	0.0326	0.126
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013											
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013											
PL-04-B	ALS	2024-10-08	WP2424051	6.86	7.63	9.9	<2.0	35.6	<1.0	<1.0	<1.0	35.6	0.0156	0.121
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020											
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020											
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013											
PL-05	Flett	2023-05-26	MTWATR060823JS1-014											
PL-05	ALS	2023-05-26	WP2309859-005	7.76	7.69	11.4	<2.0	35.3	<1.0	<1.0	<1.0	35.3	0.0237	0.122
PL-05	ALS	2023-08-10	WP2319111	7.26	7.71	21.3	<2.0	36.5	<1.0	<1.0	<1.0	36.5	0.012	0.054
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012											
PL-05	Flett	2023-08-10	MTWATR082323JS1-014											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009												
PL-03	Flett	2024-08-05	MTWATR091824JS1-005												
PL-03	ALS	2024-10-08	WP2424051			0.0011	0.0806	0.00016	0.00014	0.00682	0.00703	0.0084	0.00878	<0.000020	<0.000020
PL-03	Flett	2024-10-08	MTWATR112624JS1-003												
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003												
PL-03	ALS	2024-11-06	WP2425806			<0.0010	0.0134	0.00016	0.00018	0.00555	0.00609	0.00856	0.00915	<0.000020	<0.000020
PL-03	Flett	2024-11-06	MTWATR120524JS1-015												
PL-03	Flett	2024-11-06	TMWATR112524CH1-015												
PL-03-B	ALS	2024-08-05	WP2419024			<0.0010	0.067	0.00022	0.00021	0.00654	0.007	0.00911	0.0105	0.000026	<0.000020
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009												
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009												
PL-03-B	ALS	2024-10-08	WP2424051			<0.0010	0.013	0.00018	0.00016	0.00682	0.00725	0.00839	0.00905	<0.000020	<0.000020
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021												
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021												
PL-03-B	ALS	2024-11-06	WP2425806			<0.0010	0.0128	0.00016	0.00019	0.00566	0.0062	0.00886	0.0096	<0.000020	<0.000020
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016												
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016												
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012												
PL-04	Flett	2023-05-26	MTWATR060823JS1-013												
PL-04	ALS	2023-05-26	WP2309859-004		0.015	<0.0010		0.00013	0.00017	0.00263	0.00344	0.00709	0.0086	<0.000020	<0.000020
PL-04	ALS	2023-08-10	WP2319111			<0.0010	<0.010	0.00016	0.00017	0.00368	0.00387	0.00902	0.00812	<0.000020	<0.000020
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009												
PL-04	Flett	2023-08-10	MTWATR082323JS1-011												
PL-04	ALS	2023-08-10	WP2319111-004		<0.010										
PL-04	ALS	2023-10-10	WP2326292-004		0.0232	<0.0010		0.00016	0.00017	0.0058	0.00632	0.00888	0.00929	<0.000020	<0.000020
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014												
PL-04	Flett	2023-10-19	MTWATR111923JS1-015												
PL-04	ALS	2024-02-14	WP2403955			<0.0010	0.021	0.00021	0.00019	0.00525	0.00546	0.00848	0.00894	<0.000020	<0.000020
PL-04	Flett	2024-02-14	TMWATR022824CH1-013												
PL-04	Flett	2024-02-14	MTWATR030824JS1-012												
PL-04	ALS	2024-02-14	WP2403955-002		0.021										
PL-04	ALS	2024-05-20	WP2412615			<0.0010	0.0106	0.00015	0.00018	0.00288	0.00386	0.00763	0.00846	<0.000020	<0.000020
PL-04	Flett	2024-05-20	TMWATR061924CH1-004												
PL-04	Flett	2024-05-20	MTWATR061024JS1-004												
PL-04	ALS	2024-08-05	WP2419024			<0.0010	0.0222	0.00016	0.0002	0.00369	0.00381	0.00888	0.00878	<0.000020	<0.000020
PL-04	Flett	2024-08-05	TMWATR091224CH1-001												
PL-04	Flett	2024-08-05	MTWATR091624JS1-017												
PL-04	ALS	2024-10-08	WP2424051			<0.0010	0.0082	0.00018	0.00016	0.00657	0.00702	0.00834	0.00827	<0.000020	<0.000020
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011												
PL-04	Flett	2024-10-08	MTWATR112724JS1-010												
PL-04-B	ALS	2024-08-05	WP2419024			<0.0010	0.0436	0.00021	0.0002	0.00468	0.00446	0.00881	0.00924	<0.000020	<0.000020
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013												
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013												
PL-04-B	ALS	2024-10-08	WP2424051			<0.0010	0.0104	0.00018	0.00014	0.0066	0.00718	0.00858	0.00879	<0.000020	<0.000020
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020												
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020												
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013												
PL-05	Flett	2023-05-26	MTWATR060823JS1-014												
PL-05	ALS	2023-05-26	WP2309859-005		0.014	<0.0010		0.00014	0.00018	0.00289	0.0039	0.00696	0.00867	<0.000020	<0.000020
PL-05	ALS	2023-08-10	WP2319111			<0.0010	<0.010	0.00016	0.00016	0.00364	0.00378	0.00909	0.00856	<0.000020	<0.000020
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012												
PL-05	Flett	2023-08-10	MTWATR082323JS1-014												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009													
PL-03	Flett	2024-08-05	MTWATR091824JS1-005													
PL-03	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.2	11.3	14.4	<0.000010	0.00001		1.7
PL-03	Flett	2024-10-08	MTWATR112624JS1-003													
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003													
PL-03	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.3	11.8	13.9	<0.000010	0.000016		1.61
PL-03	Flett	2024-11-06	MTWATR120524JS1-015													
PL-03	Flett	2024-11-06	TMWATR112524CH1-015													
PL-03-B	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	0.0000134	0.0000093	11.8	12.2	14.2	0.000013	0.00003		1.78
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009													
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009													
PL-03-B	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.2	11.8	14	<0.000010	0.000014		1.72
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021													
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021													
PL-03-B	ALS	2024-11-06	WP2425806	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.4	12.1	13.7	<0.000010	0.000013		1.61
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016													
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016													
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012													
PL-04	Flett	2023-05-26	MTWATR060823JS1-013													
PL-04	ALS	2023-05-26	WP2309859-004	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.4	10.6	12.2	<0.000010	<0.000010		1.38
PL-04	ALS	2023-08-10	WP2319111	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	11.6	12.8	<0.000010	<0.000010		1.31
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009													
PL-04	Flett	2023-08-10	MTWATR082323JS1-011													
PL-04	ALS	2023-08-10	WP2319111-004													
PL-04	ALS	2023-10-10	WP2326292-004	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.1	11.6	11.4	<0.000010	<0.000010		1.68
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014													
PL-04	Flett	2023-10-19	MTWATR111923JS1-015													
PL-04	ALS	2024-02-14	WP2403955	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.8	11.7	11.3	<0.000010	<0.000010		1.51
PL-04	Flett	2024-02-14	TMWATR022824CH1-013													
PL-04	Flett	2024-02-14	MTWATR030824JS1-012													
PL-04	ALS	2024-02-14	WP2403955-002													
PL-04	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.6	11.4	16.5	<0.000010	<0.000010		1.5
PL-04	Flett	2024-05-20	TMWATR061924CH1-004													
PL-04	Flett	2024-05-20	MTWATR061024JS1-004													
PL-04	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.5	11.5	15	<0.000010	<0.000010		1.76
PL-04	Flett	2024-08-05	TMWATR091224CH1-001													
PL-04	Flett	2024-08-05	MTWATR091624JS1-017													
PL-04	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.5	12	14.5	<0.000010	0.00001		1.72
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011													
PL-04	Flett	2024-10-08	MTWATR112724JS1-010													
PL-04-B	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.5	11.5	13.7	<0.000010	0.000012		1.77
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013													
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013													
PL-04-B	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	11.2	13.9	<0.000010	0.00001		1.69
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020													
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020													
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013													
PL-05	Flett	2023-05-26	MTWATR060823JS1-014													
PL-05	ALS	2023-05-26	WP2309859-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.8	10.7	11.4	<0.000010	0.000014		1.44
PL-05	ALS	2023-08-10	WP2319111	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.5	11	12.6	<0.000010	<0.000010		1.32
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012													
PL-05	Flett	2023-08-10	MTWATR082323JS1-014													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009													
PL-03	Flett	2024-08-05	MTWATR091824JS1-005													
PL-03	ALS	2024-10-08	WP2424051	0.00014	0.00025	<0.00010	<0.00010	88.3	0.00112	0.00137	<0.0010	<0.0010		<0.0010		
PL-03	Flett	2024-10-08	MTWATR112624JS1-003													
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003													
PL-03	ALS	2024-11-06	WP2425806	0.00018	0.00042	<0.00010	<0.00010	90.5	0.00125	0.00142	<0.0010	<0.0010		<0.0010		
PL-03	Flett	2024-11-06	MTWATR120524JS1-015													
PL-03	Flett	2024-11-06	TMWATR112524CH1-015													
PL-03-B	ALS	2024-08-05	WP2419024	0.00017	0.00046	<0.00010	0.00014	86.5	0.00133	0.00144	0.0014	0.0013		0.0015		
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009													
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009													
PL-03-B	ALS	2024-10-08	WP2424051	0.00013	0.00034	<0.00010	<0.00010	88.1	0.0011	0.00144	<0.0010	<0.0010		<0.0010		
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021													
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021													
PL-03-B	ALS	2024-11-06	WP2425806	0.00015	0.00034	<0.00010	<0.00010	95.5	0.0011	0.00137	<0.0010	<0.0010		<0.0010		
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016													
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016													
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012													
PL-04	Flett	2023-05-26	MTWATR060823JS1-013													
PL-04	ALS	2023-05-26	WP2309859-004	<0.00010	0.00098	<0.00010	<0.00010	83.6	0.00096	0.00119	<0.0010	<0.0010		<0.0010		
PL-04	ALS	2023-08-10	WP2319111	0.00013	0.00015	<0.00010	<0.00010	85.9	0.00101	0.00113	<0.0010	<0.0010		<0.0010		
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009													
PL-04	Flett	2023-08-10	MTWATR082323JS1-011													
PL-04	ALS	2023-08-10	WP2319111-004													
PL-04	ALS	2023-10-10	WP2326292-004	0.00015	0.00035	<0.00010	<0.00010	87.2	0.00112	0.00132	<0.0010	<0.0010		<0.0010		
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014													
PL-04	Flett	2023-10-19	MTWATR111923JS1-015													
PL-04	ALS	2024-02-14	WP2403955	<0.00050	<0.00050	<0.00010	<0.00010	88.4	0.00111	0.00135	<0.0010	<0.0010		<0.0010		
PL-04	Flett	2024-02-14	TMWATR022824CH1-013													
PL-04	Flett	2024-02-14	MTWATR030824JS1-012													
PL-04	ALS	2024-02-14	WP2403955-002	0.00011	0.0002											
PL-04	ALS	2024-05-20	WP2412615	0.00014	0.00028	<0.00010	<0.00010	87.4	0.00096	0.00116	<0.0010	<0.0010		<0.0010		
PL-04	Flett	2024-05-20	TMWATR061924CH1-004													
PL-04	Flett	2024-05-20	MTWATR061024JS1-004													
PL-04	ALS	2024-08-05	WP2419024	0.00016	0.00019	<0.00010	<0.00010	84.6	0.00121	0.0013	0.0017	0.0016		0.0016		
PL-04	Flett	2024-08-05	TMWATR091224CH1-001													
PL-04	Flett	2024-08-05	MTWATR091624JS1-017													
PL-04	ALS	2024-10-08	WP2424051	0.00014	0.00026	<0.00010	<0.00010	88.8	0.0011	0.00134	<0.0010	<0.0010		<0.0010		
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011													
PL-04	Flett	2024-10-08	MTWATR112724JS1-010													
PL-04-B	ALS	2024-08-05	WP2419024	0.00017	0.00027	<0.00010	<0.00010	84.8	0.00128	0.00136	0.0013	0.0011		0.0013		
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013													
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013													
PL-04-B	ALS	2024-10-08	WP2424051	0.00014	0.00032	<0.00010	<0.00010	89.2	0.00124	0.00139	<0.0010	<0.0010		<0.0010		
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020													
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020													
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013													
PL-05	Flett	2023-05-26	MTWATR060823JS1-014													
PL-05	ALS	2023-05-26	WP2309859-005	<0.00010	0.00029	<0.00010	<0.00010	85.8	0.001	0.00123	<0.0010	<0.0010		<0.0010		
PL-05	ALS	2023-08-10	WP2319111	0.00014	0.00024	<0.00010	<0.00010	86.1	0.00104	0.00119	0.0015	<0.0010		<0.0010		
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012													
PL-05	Flett	2023-08-10	MTWATR082323JS1-014													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009												
PL-03	Flett	2024-08-05	MTWATR091824JS1-005												
PL-03	ALS	2024-10-08	WP2424051	40.1	40	0.038	0.108	<0.000050	<0.000050	<0.0010	0.0013	2.94	2.85	0.00135	0.00688
PL-03	Flett	2024-10-08	MTWATR112624JS1-003												
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003												
PL-03	ALS	2024-11-06	WP2425806	42.6	41.3	0.044	0.16	<0.000050	0.000058	<0.0010	0.0013	2.9	2.87	0.00102	0.00859
PL-03	Flett	2024-11-06	MTWATR120524JS1-015												
PL-03	Flett	2024-11-06	TMWATR112524CH1-015												
PL-03-B	ALS	2024-08-05	WP2419024	41.4	42.2	0.069	0.3	<0.000050	0.000127	0.0016	0.0026	2.89	2.86	0.0393	0.0593
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009												
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009												
PL-03-B	ALS	2024-10-08	WP2424051	39.6	41.8	0.038	0.164	<0.000050	0.000077	<0.0010	0.0015	2.82	3	0.00099	0.00963
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021												
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021												
PL-03-B	ALS	2024-11-06	WP2425806	43.4	43	0.044	0.152	<0.000050	0.000057	<0.0010	0.0013	3.02	3.1	0.00083	0.00864
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016												
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016												
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012												
PL-04	Flett	2023-05-26	MTWATR060823JS1-013												
PL-04	ALS	2023-05-26	WP2309859-004	36.6	38.2	0.05	0.138	<0.000050	0.000054	0.0011	0.0012	2.58	2.86	0.0009	0.015
PL-04	ALS	2023-08-10	WP2319111	38.9	40.7	0.019	0.043	<0.000050	<0.000050	<0.0010	0.0011	2.54	2.86	0.00076	0.00395
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009												
PL-04	Flett	2023-08-10	MTWATR082323JS1-011												
PL-04	ALS	2023-08-10	WP2319111-004												
PL-04	ALS	2023-10-10	WP2326292-004	39.4	41.2	0.02	0.092	0.000168	0.000051	<0.0010	0.001	2.83	2.96	0.00066	0.00793
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014												
PL-04	Flett	2023-10-19	MTWATR111923JS1-015												
PL-04	ALS	2024-02-14	WP2403955	37.8	40.6	0.016	0.033	<0.000050	<0.000050	<0.0010	0.0019	2.64	2.77	0.00119	0.00205
PL-04	Flett	2024-02-14	TMWATR022824CH1-013												
PL-04	Flett	2024-02-14	MTWATR030824JS1-012												
PL-04	ALS	2024-02-14	WP2403955-002												
PL-04	ALS	2024-05-20	WP2412615	40.2	39.6	0.046	0.129	<0.000050	<0.000050	0.0017	0.0012	2.74	2.7	0.00089	0.00859
PL-04	Flett	2024-05-20	TMWATR061924CH1-004												
PL-04	Flett	2024-05-20	MTWATR061024JS1-004												
PL-04	ALS	2024-08-05	WP2419024	40.7	40	0.043	0.068	<0.000050	<0.000050	0.0017	0.0024	2.92	2.74	0.00071	0.00281
PL-04	Flett	2024-08-05	TMWATR091224CH1-001												
PL-04	Flett	2024-08-05	MTWATR091624JS1-017												
PL-04	ALS	2024-10-08	WP2424051	40.9	42.2	0.039	0.118	<0.000050	<0.000050	<0.0010	0.0014	2.95	2.96	0.00092	0.00722
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011												
PL-04	Flett	2024-10-08	MTWATR112724JS1-010												
PL-04-B	ALS	2024-08-05	WP2419024	40.4	40	0.055	0.13	<0.000050	<0.000050	0.0017	0.0025	2.83	2.73	0.00184	0.00649
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013												
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013												
PL-04-B	ALS	2024-10-08	WP2424051	40.2	39.6	0.038	0.148	<0.000050	0.000062	<0.0010	0.0016	2.86	2.82	0.00073	0.00862
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020												
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020												
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013												
PL-05	Flett	2023-05-26	MTWATR060823JS1-014												
PL-05	ALS	2023-05-26	WP2309859-005	37.6	38.4	0.041	0.145	<0.000050	0.000058	0.0011	0.0013	2.59	2.84	0.00074	0.00942
PL-05	ALS	2023-08-10	WP2319111	39.5	39.4	0.019	0.06	<0.000050	<0.000050	<0.0010	<0.0010	2.63	2.89	0.00154	0.0102
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012												
PL-05	Flett	2023-08-10	MTWATR082323JS1-014												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009				1.09								
PL-03	Flett	2024-08-05	MTWATR091824JS1-005		0.036										
PL-03	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.000233	0.000228	0.00083	0.0009	0.0693	0.0693	<0.0010	<0.030
PL-03	Flett	2024-10-08	MTWATR112624JS1-003		0.031										
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003				0.9								
PL-03	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.000217	0.000238	0.00115	0.001	0.0473	0.0473	<0.0010	<0.030
PL-03	Flett	2024-11-06	MTWATR120524JS1-015		0.033										
PL-03	Flett	2024-11-06	TMWATR112524CH1-015				1.06								
PL-03-B	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000268	0.00023	0.00109	0.00135	0.118	0.122	0.0039	
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009				1.73								
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009		0.048										
PL-03-B	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.00022	0.000252	0.00086	0.00108	0.0716	0.0732	0.0016	<0.030
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021				0.95								
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021		0.029										
PL-03-B	ALS	2024-11-06	WP2425806	<0.0000050		<0.0000050		0.000224	0.00022	0.00082	0.001	0.046	0.046	<0.0010	<0.030
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016		0.033										
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016				1.04								
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012				1.37								
PL-04	Flett	2023-05-26	MTWATR060823JS1-013		0.032										
PL-04	ALS	2023-05-26	WP2309859-004	<0.0000050		<0.0000050		0.000158	0.000189	0.00059	0.00168	0.0145	0.0145	<0.0010	
PL-04	ALS	2023-08-10	WP2319111	<0.0000050		<0.0000050		0.000203	0.000231	0.00068	0.00074	<0.0050	<0.0051	<0.0010	
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009				0.61								
PL-04	Flett	2023-08-10	MTWATR082323JS1-011		0.022										
PL-04	ALS	2023-08-10	WP2319111-004												
PL-04	ALS	2023-10-10	WP2326292-004	<0.0000050		<0.0000050		0.000215	0.000242	0.00072	0.00092	0.0376	0.0386	0.001	
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014				0.6								
PL-04	Flett	2023-10-19	MTWATR111923JS1-015		0.016										
PL-04	ALS	2024-02-14	WP2403955	<0.0000050		<0.0000050		0.000236	0.000219	0.0007	0.00086	0.0822	0.0846	0.0024	
PL-04	Flett	2024-02-14	TMWATR022824CH1-013				1.04								
PL-04	Flett	2024-02-14	MTWATR030824JS1-012		0.022										
PL-04	ALS	2024-02-14	WP2403955-002												
PL-04	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000202	0.000202	0.00074	0.0009	0.0218	0.0218	<0.0010	
PL-04	Flett	2024-05-20	TMWATR061924CH1-004				1.57								
PL-04	Flett	2024-05-20	MTWATR061024JS1-004		0.03										
PL-04	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000187	0.000193	0.00084	0.00094	0.0125	0.0125	<0.0010	
PL-04	Flett	2024-08-05	TMWATR091224CH1-001				1.06								
PL-04	Flett	2024-08-05	MTWATR091624JS1-017		0.034										
PL-04	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.000225	0.000228	0.00085	0.00105	0.0637	0.0653	0.0016	<0.030
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011				0.95								
PL-04	Flett	2024-10-08	MTWATR112724JS1-010		0.029										
PL-04-B	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000232	0.000204	0.001	0.00103	0.0521	0.0547	0.0026	
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013				1.07								
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013		0.035										
PL-04-B	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.000221	0.000223	0.00084	0.0011	0.0692	0.0704	0.0012	<0.030
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020				0.96								
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020		0.029										
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013				1.02								
PL-05	Flett	2023-05-26	MTWATR060823JS1-014		0.025										
PL-05	ALS	2023-05-26	WP2309859-005	<0.0000050		<0.0000050		0.000176	0.000197	0.00067	0.00089	<0.0050	<0.0051	<0.0010	
PL-05	ALS	2023-08-10	WP2319111	<0.0000050		<0.0000050		0.000205	0.000228	0.0007	0.00081	<0.0050	<0.0051	<0.0010	
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012				0.65								
PL-05	Flett	2023-08-10	MTWATR082323JS1-014		0.022										

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009												
PL-03	Flett	2024-08-05	MTWATR091824JS1-005												
PL-03	ALS	2024-10-08	WP2424051		<0.030	0.0357		0.908	0.982		0.0016	0.00185	0.000077	0.000122	1.85
PL-03	Flett	2024-10-08	MTWATR112624JS1-003												
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003												
PL-03	ALS	2024-11-06	WP2425806		<0.030	0.0268		0.956	1.01		0.0016	0.00179	0.000072	0.000092	1.66
PL-03	Flett	2024-11-06	MTWATR120524JS1-015												
PL-03	Flett	2024-11-06	TMWATR112524CH1-015												
PL-03-B	ALS	2024-08-05	WP2419024	0.032	0.046	0.0497	<0.050	0.987	1.06		0.00198	0.00232	0.000114	0.000113	2.37
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009												
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009												
PL-03-B	ALS	2024-10-08	WP2424051		0.03	0.03		0.915	1.01		0.0016	0.00194	<0.000050	0.000168	1.83
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021												
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021												
PL-03-B	ALS	2024-11-06	WP2425806		0.031	0.0269		0.972	1.04		0.00163	0.0018	0.000132	0.000114	1.73
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016												
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016												
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012												
PL-04	Flett	2023-05-26	MTWATR060823JS1-013												
PL-04	ALS	2023-05-26	WP2309859-004	<0.030		0.0192	<0.030	0.904	1.05		0.00138	0.00148	0.000083	0.000108	1.33
PL-04	ALS	2023-08-10	WP2319111	<0.030	<0.030	0.0144	<0.050	0.96	1		0.00169	0.00175	0.000061	0.000095	1.26
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009												
PL-04	Flett	2023-08-10	MTWATR082323JS1-011												
PL-04	ALS	2023-08-10	WP2319111-004				<0.030								
PL-04	ALS	2023-10-10	WP2326292-004	<0.030		0.0262	0.041	1.04	1.08		0.00167	0.0018	0.000076	0.000099	1.49
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014												
PL-04	Flett	2023-10-19	MTWATR111923JS1-015												
PL-04	ALS	2024-02-14	WP2403955	<0.050	<0.030	0.0223	<0.050	1.02	1.06		0.00166	0.00163	0.000066	0.000105	1.11
PL-04	Flett	2024-02-14	TMWATR022824CH1-013												
PL-04	Flett	2024-02-14	MTWATR030824JS1-012												
PL-04	ALS	2024-02-14	WP2403955-002	<0.030			<0.03								
PL-04	ALS	2024-05-20	WP2412615	<0.030	<0.030	0.0246	<0.050	0.982	0.946		0.00146	0.00148	0.000088	<0.000050	1.74
PL-04	Flett	2024-05-20	TMWATR061924CH1-004												
PL-04	Flett	2024-05-20	MTWATR061024JS1-004												
PL-04	ALS	2024-08-05	WP2419024	<0.030	<0.030	0.0145	<0.050	0.96	0.982		0.00172	0.0019	0.000078	0.000057	1.5
PL-04	Flett	2024-08-05	TMWATR091224CH1-001												
PL-04	Flett	2024-08-05	MTWATR091624JS1-017												
PL-04	ALS	2024-10-08	WP2424051		<0.030	0.0354		0.907	1.01		0.00182	0.00186	0.000081	0.000086	1.81
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011												
PL-04	Flett	2024-10-08	MTWATR112724JS1-010												
PL-04-B	ALS	2024-08-05	WP2419024	<0.030	<0.030	0.0248	<0.050	0.959	1.01		0.00176	0.00194	0.000117	0.000116	1.96
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013												
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013												
PL-04-B	ALS	2024-10-08	WP2424051		<0.030	0.0329		0.92	1.02		0.00162	0.00183	0.000103	0.000093	1.78
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020												
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020												
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013												
PL-05	Flett	2023-05-26	MTWATR060823JS1-014												
PL-05	ALS	2023-05-26	WP2309859-005	<0.030		0.0172	<0.030	0.913	1.05		0.0014	0.00166	0.000096	0.000095	1.18
PL-05	ALS	2023-08-10	WP2319111	<0.030	<0.030	0.017	<0.050	0.982	1.02		0.00171	0.00168	0.000102	0.000084	1.41
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012												
PL-05	Flett	2023-08-10	MTWATR082323JS1-014												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009													
PL-03	Flett	2024-08-05	MTWATR091824JS1-005													
PL-03	ALS	2024-10-08	WP2424051	2.03	<0.000010	<0.000010	2.02	1.96	76.5	2.8	0.0252	0.0268	1.38	1.36	3.82	<0.00020
PL-03	Flett	2024-10-08	MTWATR112624JS1-003													
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003													
PL-03	ALS	2024-11-06	WP2425806	2.01	<0.000010	<0.000010	1.99	1.97	76	3.5	0.0272	0.026	1.44	1.41	3.61	<0.00020
PL-03	Flett	2024-11-06	MTWATR120524JS1-015													
PL-03	Flett	2024-11-06	TMWATR112524CH1-015													
PL-03-B	ALS	2024-08-05	WP2419024	2.76	<0.000010	<0.000010	2.16	2.13	75	3.7	0.0273	0.0274	1.58	1.54	4.04	<0.00020
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009													
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009													
PL-03-B	ALS	2024-10-08	WP2424051	2.33	<0.000010	<0.000010	1.96	2.09	82.2	2.5	0.0262	0.0273	1.4	1.59	3.85	<0.00020
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021													
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021													
PL-03-B	ALS	2024-11-06	WP2425806	2.02	<0.000010	<0.000010	2.04	2.06	83	3.4	0.0278	0.0265	1.39	1.48	3.6	<0.00020
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016													
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016													
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012													
PL-04	Flett	2023-05-26	MTWATR060823JS1-013													
PL-04	ALS	2023-05-26	WP2309859-004	1.64	<0.000010	<0.000010	1.65	1.84	56	2.3	0.0242	0.0263	0.87	1.12	2.94	<0.00020
PL-04	ALS	2023-08-10	WP2319111	1.42	<0.000010	<0.000010	1.56	1.72	73.3	1.7	0.0252	0.0246	1.1	1.02	3.02	<0.00020
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009													
PL-04	Flett	2023-08-10	MTWATR082323JS1-011													
PL-04	ALS	2023-08-10	WP2319111-004													
PL-04	ALS	2023-10-10	WP2326292-004	1.87	<0.000010	<0.000010	1.68	1.86	53.2	2.5	0.0258	0.0257	1.05	1.2	2.98	<0.00020
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014													
PL-04	Flett	2023-10-19	MTWATR111923JS1-015													
PL-04	ALS	2024-02-14	WP2403955	1.27	<0.000010	<0.000010	1.83	2.03	63.8	<1.0	0.0249	0.0273	1.14	1.74	3.17	<0.00020
PL-04	Flett	2024-02-14	TMWATR022824CH1-013													
PL-04	Flett	2024-02-14	MTWATR030824JS1-012													
PL-04	ALS	2024-02-14	WP2403955-002													
PL-04	ALS	2024-05-20	WP2412615	1.92	<0.000010	<0.000010	1.85	1.84	72.9	2	0.0261	0.0262	1.29	1.28	3.34	<0.00020
PL-04	Flett	2024-05-20	TMWATR061924CH1-004													
PL-04	Flett	2024-05-20	MTWATR061024JS1-004													
PL-04	ALS	2024-08-05	WP2419024	1.62	<0.000010	<0.000010	1.99	2.05	67.7	1	0.0253	0.0264	1.62	1.61	3.93	<0.00020
PL-04	Flett	2024-08-05	TMWATR091224CH1-001													
PL-04	Flett	2024-08-05	MTWATR091624JS1-017													
PL-04	ALS	2024-10-08	WP2424051	2.2	<0.000010	<0.000010	2.03	2.13	79.9	2.9	0.0252	0.026	1.39	1.63	3.87	<0.00020
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011													
PL-04	Flett	2024-10-08	MTWATR112724JS1-010													
PL-04-B	ALS	2024-08-05	WP2419024	2.06	<0.000010	<0.000010	2.02	2.07	66.7	<1.0	0.0252	0.0264	1.51	1.64	3.99	<0.00020
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013													
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013													
PL-04-B	ALS	2024-10-08	WP2424051	2.26	<0.000010	<0.000010	1.95	2.1	77.2	2.9	0.0257	0.0275	1.42	1.51	3.82	<0.00020
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020													
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020													
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013													
PL-05	Flett	2023-05-26	MTWATR060823JS1-014													
PL-05	ALS	2023-05-26	WP2309859-005	1.56	<0.000010	<0.000010	1.74	1.89	54.3	2.9	0.0259	0.0271	1.06	1.12	3.13	<0.00020
PL-05	ALS	2023-08-10	WP2319111	1.56	<0.000010	<0.000010	1.6	1.8	69	1.6	0.0263	0.0246	1.11	1	3.05	<0.00020
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012													
PL-05	Flett	2023-08-10	MTWATR082323JS1-014													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009													
PL-03	Flett	2024-08-05	MTWATR091824JS1-005													
PL-03	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00035	0.0029		<0.00010	<0.00010	0.000089
PL-03	Flett	2024-10-08	MTWATR112624JS1-003													
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003													
PL-03	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	0.00016	<0.00010	0.00042	0.00516		<0.00010	<0.00010	0.000097
PL-03	Flett	2024-11-06	MTWATR120524JS1-015													
PL-03	Flett	2024-11-06	TMWATR112524CH1-015													
PL-03-B	ALS	2024-08-05	WP2419024	<0.00020	0.000014	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00095	0.00927		<0.00010	<0.00010	0.000092
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009													
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009													
PL-03-B	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00042	0.00467		<0.00010	<0.00010	0.000098
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021													
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021													
PL-03-B	ALS	2024-11-06	WP2425806	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00047	0.00505		<0.00010	<0.00010	0.000098
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016													
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016													
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012													
PL-04	Flett	2023-05-26	MTWATR060823JS1-013													
PL-04	ALS	2023-05-26	WP2309859-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00054	0.00313		<0.00010	<0.00010	0.000083
PL-04	ALS	2023-08-10	WP2319111	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00105		<0.00010	<0.00010	0.000091
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009													
PL-04	Flett	2023-08-10	MTWATR082323JS1-011													
PL-04	ALS	2023-08-10	WP2319111-004													
PL-04	ALS	2023-10-10	WP2326292-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00036	0.00313		<0.00010	<0.00010	0.000089
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014													
PL-04	Flett	2023-10-19	MTWATR111923JS1-015													
PL-04	ALS	2024-02-14	WP2403955	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00039	0.00078		<0.00010	<0.00010	0.000075
PL-04	Flett	2024-02-14	TMWATR022824CH1-013													
PL-04	Flett	2024-02-14	MTWATR030824JS1-012													
PL-04	ALS	2024-02-14	WP2403955-002													
PL-04	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00056	0.0029		<0.00010	<0.00010	0.000079
PL-04	Flett	2024-05-20	TMWATR061924CH1-004													
PL-04	Flett	2024-05-20	MTWATR061024JS1-004													
PL-04	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0007	0.00171		<0.00010	<0.00010	0.000091
PL-04	Flett	2024-08-05	TMWATR091224CH1-001													
PL-04	Flett	2024-08-05	MTWATR091624JS1-017													
PL-04	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00038	0.00287		<0.00010	<0.00010	0.000086
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011													
PL-04	Flett	2024-10-08	MTWATR112724JS1-010													
PL-04-B	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00081	0.00392		<0.00010	<0.00010	0.000084
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013													
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013													
PL-04-B	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00036	0.00435		<0.00010	<0.00010	0.000101
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020													
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020													
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013													
PL-05	Flett	2023-05-26	MTWATR060823JS1-014													
PL-05	ALS	2023-05-26	WP2309859-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00058	0.00473		<0.00010	<0.00010	0.000092
PL-05	ALS	2023-08-10	WP2319111	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00182		<0.00010	<0.00010	0.000088
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012													
PL-05	Flett	2023-08-10	MTWATR082323JS1-014													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
PL-03	Flett	2024-08-05	TMWATR091224CH1-009									
PL-03	Flett	2024-08-05	MTWATR091824JS1-005									
PL-03	ALS	2024-10-08	WP2424051	0.000095	0.0005	0.00072			<0.0010	<0.0030	<0.00030	<0.00020
PL-03	Flett	2024-10-08	MTWATR112624JS1-003									
PL-03	Flett	2024-10-08	TMWATR102224ZB2-003									
PL-03	ALS	2024-11-06	WP2425806	0.000101	<0.00050	0.00073			0.0039	<0.0030	<0.00030	0.00022
PL-03	Flett	2024-11-06	MTWATR120524JS1-015									
PL-03	Flett	2024-11-06	TMWATR112524CH1-015									
PL-03-B	ALS	2024-08-05	WP2419024	0.000102	<0.00050	0.0008			<0.0010	<0.0030	<0.00030	0.00026
PL-03-B	Flett	2024-08-05	TMWATR091124CH1-009									
PL-03-B	Flett	2024-08-05	MTWATR091624JS1-009									
PL-03-B	ALS	2024-10-08	WP2424051	0.000107	<0.00050	0.0008			<0.0010	<0.0030	<0.00030	0.00022
PL-03-B	Flett	2024-10-08	TMWATR102824ZB1-021									
PL-03-B	Flett	2024-10-08	MTWATR112724JS1-021									
PL-03-B	ALS	2024-11-06	WP2425806	0.000094	<0.00050	0.00075			<0.0010	<0.0030	<0.00030	0.00023
PL-03-B	Flett	2024-11-06	MTWATR120524JS1-016									
PL-03-B	Flett	2024-11-06	TMWATR112524CH1-016									
PL-04	Flett	2023-05-26	TMWATR060923ZB1-012									
PL-04	Flett	2023-05-26	MTWATR060823JS1-013									
PL-04	ALS	2023-05-26	WP2309859-004	0.000096	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
PL-04	ALS	2023-08-10	WP2319111	0.00009	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
PL-04	Flett	2023-08-10	TMWATR082323ZB1-009									
PL-04	Flett	2023-08-10	MTWATR082323JS1-011									
PL-04	ALS	2023-08-10	WP2319111-004									
PL-04	ALS	2023-10-10	WP2326292-004	0.000096	<0.00050	0.00069			<0.0010	<0.0030	<0.00030	<0.00020
PL-04	Flett	2023-10-19	TMWATR110223ZB1-014									
PL-04	Flett	2023-10-19	MTWATR111923JS1-015									
PL-04	ALS	2024-02-14	WP2403955	0.000086	<0.00050	0.0007			0.0018	<0.0030	<0.00030	<0.00020
PL-04	Flett	2024-02-14	TMWATR022824CH1-013									
PL-04	Flett	2024-02-14	MTWATR030824JS1-012									
PL-04	ALS	2024-02-14	WP2403955-002									
PL-04	ALS	2024-05-20	WP2412615	0.000086	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
PL-04	Flett	2024-05-20	TMWATR061924CH1-004									
PL-04	Flett	2024-05-20	MTWATR061024JS1-004									
PL-04	ALS	2024-08-05	WP2419024	0.000094	<0.00050	<0.00050			<0.0010	0.0033	<0.00030	<0.00020
PL-04	Flett	2024-08-05	TMWATR091224CH1-001									
PL-04	Flett	2024-08-05	MTWATR091624JS1-017									
PL-04	ALS	2024-10-08	WP2424051	0.000106	<0.00050	0.00072			<0.0010	<0.0030	<0.00030	<0.00020
PL-04	Flett	2024-10-08	TMWATR102824ZB1-011									
PL-04	Flett	2024-10-08	MTWATR112724JS1-010									
PL-04-B	ALS	2024-08-05	WP2419024	0.000094	<0.00050	0.00055			<0.0010	<0.0030	<0.00030	0.00022
PL-04-B	Flett	2024-08-05	TMWATR091124CH1-013									
PL-04-B	Flett	2024-08-05	MTWATR091624JS1-013									
PL-04-B	ALS	2024-10-08	WP2424051	0.000115	<0.00050	0.00077			<0.0010	<0.0030	<0.00030	0.00021
PL-04-B	Flett	2024-10-08	TMWATR102824ZB1-020									
PL-04-B	Flett	2024-10-08	MTWATR112724JS1-020									
PL-05	Flett	2023-05-26	TMWATR060923ZB1-013									
PL-05	Flett	2023-05-26	MTWATR060823JS1-014									
PL-05	ALS	2023-05-26	WP2309859-005	0.0001	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
PL-05	ALS	2023-08-10	WP2319111	0.00009	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
PL-05	Flett	2023-08-10	TMWATR082323ZB1-012									
PL-05	Flett	2023-08-10	MTWATR082323JS1-014									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005											
PL-05	ALS	2023-10-10	WP2326292-005	7.71	7.62	12.5	2.4	37.1	<1.0	<1.0	<1.0	37.1	0.017	0.125
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015											
PL-05	Flett	2023-10-19	MTWATR111923JS1-016											
PL-05	ALS	2024-02-13	WP2403718	7.93	7.68	0.66	<2.0	40.5	<1.0	<1.0	<1.0	40.5	0.017	0.0367
PL-05	Flett	2024-02-13	MTWATR030824JS1-014											
PL-05	Flett	2024-02-13	TMWATR022824CH1-014											
PL-05	Flett	2024-02-13	MTWATR030824JS1-013											
PL-05	ALS	2024-02-13	WP2403718-005											
PL-05	ALS	2024-05-20	WP2412615	7.93	7.56	11.8	<2.0	37.8	<1.0	<1.0	<1.0	37.8	0.0167	0.134
PL-05	ALS	2024-05-20	WP2412615	7.93	7.56	11.8	<2.0	37.8	<1.0	<1.0	<1.0	37.8	0.0181	0.132
PL-05	Flett	2024-05-20	TMWATR061924CH1-006											
PL-05	Flett	2024-05-20	MTWATR061024JS1-006											
PL-05	Flett	2024-05-20	TMWATR061924CH1-005											
PL-05	Flett	2024-05-20	MTWATR061024JS1-005											
PL-05	ALS	2024-08-05	WP2419024	7.32	7.7	23	<2.0	33.9	<1.0	<1.0	<1.0	33.9	0.028	0.0707
PL-05	Flett	2024-08-05	TMWATR091224CH1-004											
PL-05	Flett	2024-08-05	MTWATR091624JS1-019											
PL-05	ALS	2024-10-08	WP2424051	7.32	7.56	9	<2.0	35.4	<1.0	<1.0	<1.0	35.4	0.0176	0.133
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019											
PL-05	Flett	2024-10-08	MTWATR112724JS1-019											
PL-05-B	ALS	2024-08-05	WP2419024	6.47	7.71	21	<2.0	37.5	<1.0	<1.0	<1.0	37.5	0.0522	0.276
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016											
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016											
PL-05-B	ALS	2024-10-08	WP2424051	7	7.63	9.47	<2.0	35.5	<1.0	<1.0	<1.0	35.5	0.0136	0.123
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002											
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002											
RSWQ-1	ALS	2024-10-01	WP2423294	7.19	7.66	13.2	<2.0	36.7	<1.0	<1.0	<1.0	36.7	0.0234	0.229
RSWQ-1	ALS	2024-10-01	WP2424435											
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008											
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007											
RSWQ-1-B	ALS	2024-10-01	WP2423294	7.49	7.69	13.2	<2.0	36.8	<1.0	<1.0	<1.0	36.8	0.0132	0.259
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005											
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004											
RSWQ-2	ALS	2024-10-01	WP2423294	7.35	7.72	12.3	<2.0	37.9	<1.0	<1.0	<1.0	37.9	0.0311	0.426
RSWQ-2	ALS	2024-10-01	WP2423294	7.35	7.7	12.3	<2.0	37.2	<1.0	<1.0	<1.0	37.2	0.025	0.228
RSWQ-2	ALS	2024-10-01	WP2424435											
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006											
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005											
RSWQ-2-B	ALS	2024-10-01	WP2423294	7.7	7.59	11.8	<2.0	37.6	<1.0	<1.0	<1.0	37.6	0.0136	1.48
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010											
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010											
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009											
RSWQ-3	ALS	2024-10-01	WP2423294	7.55	7.69	13.1	<2.0	37.9	<1.0	<1.0	<1.0	37.9	0.0244	0.224
RSWQ-3	ALS	2024-10-01	WP2424435											
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009											
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008											
RSWQ-3-B	ALS	2024-10-01	WP2423294	7.46	7.71	13	<2.0	37.9	<1.0	<1.0	<1.0	37.9	0.0146	0.25
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007											
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006											
SW-01	SGS	2022-06-07	CA15258-JUN22		6.19		8					5		0.345
SW-01	SGS	2022-07-13	CA15242-JUL22	5.25	6.46	26.4	13					8		0.388

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005		<0.010										
PL-05	ALS	2023-10-10	WP2326292-005		<0.0050	<0.0010		0.00016	0.00017	0.00592	0.00632	0.00872	0.00927	<0.000020	<0.000020
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015												
PL-05	Flett	2023-10-19	MTWATR111923JS1-016												
PL-05	ALS	2024-02-13	WP2403718			<0.0010	0.008	0.00021	0.00022	0.00575	0.00562	0.00902	0.00952	<0.000020	<0.000020
PL-05	Flett	2024-02-13	MTWATR030824JS1-014												
PL-05	Flett	2024-02-13	TMWATR022824CH1-014												
PL-05	Flett	2024-02-13	MTWATR030824JS1-013												
PL-05	ALS	2024-02-13	WP2403718-005		0.008										
PL-05	ALS	2024-05-20	WP2412615			<0.0010	0.0066	0.00018	0.00018	0.00316	0.0043	0.00743	0.00882	<0.000020	<0.000020
PL-05	ALS	2024-05-20	WP2412615			<0.0010	0.0067	0.00016	0.00019	0.00318	0.00422	0.00767	0.00882	<0.000020	<0.000020
PL-05	Flett	2024-05-20	TMWATR061924CH1-006												
PL-05	Flett	2024-05-20	MTWATR061024JS1-006												
PL-05	Flett	2024-05-20	TMWATR061924CH1-005												
PL-05	Flett	2024-05-20	MTWATR061024JS1-005												
PL-05	ALS	2024-08-05	WP2419024			<0.0010	0.009	0.00018	0.00019	0.00383	0.00402	0.00857	0.00898	<0.000020	<0.000020
PL-05	Flett	2024-08-05	TMWATR091224CH1-004												
PL-05	Flett	2024-08-05	MTWATR091624JS1-019												
PL-05	ALS	2024-10-08	WP2424051			<0.0010	0.0075	0.00018	0.00017	0.00713	0.00765	0.00874	0.00913	<0.000020	<0.000020
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019												
PL-05	Flett	2024-10-08	MTWATR112724JS1-019												
PL-05-B	ALS	2024-08-05	WP2419024			<0.0010	0.0122	0.00018	0.00019	0.00453	0.00514	0.00933	0.0114	<0.000020	<0.000020
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016												
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016												
PL-05-B	ALS	2024-10-08	WP2424051			<0.0010	0.0279	0.00019	0.00015	0.00715	0.00764	0.00841	0.00865	<0.000020	<0.000020
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002												
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002												
RSWQ-1	ALS	2024-10-01	WP2423294			<0.0010	0.0079	<0.00010	<0.00010	0.00054	0.0006	0.00653	0.00843	<0.000020	<0.000020
RSWQ-1	ALS	2024-10-01	WP2424435												
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008												
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007												
RSWQ-1-B	ALS	2024-10-01	WP2423294			<0.0010	0.0072	<0.00010	<0.00010	0.00057	0.00067	0.00623	0.00811	<0.000020	<0.000020
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005												
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004												
RSWQ-2	ALS	2024-10-01	WP2423294			<0.0010	0.0068	<0.00010	<0.00010	0.00127	0.00158	0.00661	0.00986	<0.000020	<0.000020
RSWQ-2	ALS	2024-10-01	WP2423294			<0.0010	0.0056	<0.00010	<0.00010	0.00115	0.00135	0.00651	0.00766	<0.000020	<0.000020
RSWQ-2	ALS	2024-10-01	WP2424435												
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006												
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005												
RSWQ-2-B	ALS	2024-10-01	WP2423294			<0.0010	0.0094	<0.00010	<0.00010	0.00128	0.00193	0.00654	0.0182	<0.000020	0.000052
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010												
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010												
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009												
RSWQ-3	ALS	2024-10-01	WP2423294			<0.0010	0.0061	<0.00010	<0.00010	0.00157	0.00174	0.0066	0.0081	<0.000020	<0.000020
RSWQ-3	ALS	2024-10-01	WP2424435												
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009												
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008												
RSWQ-3-B	ALS	2024-10-01	WP2423294			<0.0010	<0.0050	<0.00010	<0.00010	0.00146	0.00167	0.00663	0.00824	<0.000020	<0.000020
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007												
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006												
SW-01	SGS	2022-06-07	CA15258-JUN22	0.293			< 0.1	< 0.0009	< 0.0009	0.0044	0.0053	0.00646	0.00724	0.000015	0.000017
SW-01	SGS	2022-07-13	CA15242-JUL22	0.353			<0.1	< 0.0009	< 0.0009	0.0062	0.0055	0.00802	0.00807	0.000024	0.000021

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005													
PL-05	ALS	2023-10-10	WP2326292-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.3	11	11.6	<0.000010	0.000015		1.44
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015													
PL-05	Flett	2023-10-19	MTWATR111923JS1-016													
PL-05	ALS	2024-02-13	WP2403718	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13.1	12.7	12.1	<0.000010	<0.000010		1.73
PL-05	Flett	2024-02-13	MTWATR030824JS1-014													
PL-05	Flett	2024-02-13	TMWATR022824CH1-014													
PL-05	Flett	2024-02-13	MTWATR030824JS1-013													
PL-05	ALS	2024-02-13	WP2403718-005													
PL-05	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.2	12	11.7	<0.000010	0.000014		1.48
PL-05	ALS	2024-05-20	WP2412615	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.2	11.9	12.9	<0.000010	0.000015		1.48
PL-05	Flett	2024-05-20	TMWATR061924CH1-006													
PL-05	Flett	2024-05-20	MTWATR061024JS1-006													
PL-05	Flett	2024-05-20	TMWATR061924CH1-005													
PL-05	Flett	2024-05-20	MTWATR061024JS1-005													
PL-05	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.5	11.5	16.2	<0.000010	<0.000010		1.87
PL-05	Flett	2024-08-05	TMWATR091224CH1-004													
PL-05	Flett	2024-08-05	MTWATR091624JS1-019													
PL-05	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.3	11.8	13.8	<0.000010	0.000014		1.7
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019													
PL-05	Flett	2024-10-08	MTWATR112724JS1-019													
PL-05-B	ALS	2024-08-05	WP2419024	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000005	11.8	12	13.8	<0.000010	0.000033		1.76
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016													
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016													
PL-05-B	ALS	2024-10-08	WP2424051	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.5	11.3	13.2	<0.000010	0.000013		1.73
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002													
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002													
RSWQ-1	ALS	2024-10-01	WP2423294	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.2	11.7	12.1	<0.000010	0.00003		0.58
RSWQ-1	ALS	2024-10-01	WP2424435													
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008													
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007													
RSWQ-1-B	ALS	2024-10-01	WP2423294	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.3	11.5	10.3	<0.000010	0.00003		0.59
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005													
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004													
RSWQ-2	ALS	2024-10-01	WP2423294	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	11.6	12.7	<0.000010	0.000056		0.75
RSWQ-2	ALS	2024-10-01	WP2423294	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.3	11.5	11.7	<0.000010	0.000028		0.72
RSWQ-2	ALS	2024-10-01	WP2424435													
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006													
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005													
RSWQ-2-B	ALS	2024-10-01	WP2423294	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000104	11.4	12.2	10.9	<0.000010	0.000182		0.76
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010													
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010													
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009													
RSWQ-3	ALS	2024-10-01	WP2423294	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	11.8	12.7	<0.000010	0.000027		0.78
RSWQ-3	ALS	2024-10-01	WP2424435													
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009													
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008													
RSWQ-3-B	ALS	2024-10-01	WP2423294	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	11.7	11.2	<0.000010	0.000025		0.78
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007													
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006													
SW-01	SGS	2022-06-07	CA15258-JUN22	< 0.00001	< 0.00001	0.004	0.006	0.000013	0.000016	5.11	5.81	33			86	2
SW-01	SGS	2022-07-13	CA15242-JUL22	< 0.00001	< 0.00001	0.004	0.004	0.000018	0.000006	6.91	6.51	37			97	2

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005													
PL-05	ALS	2023-10-10	WP2326292-005	0.00014	0.00035	<0.00010	<0.00010	87.4	0.00114	0.00133	<0.0010	<0.0010		<0.0010		
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015													
PL-05	Flett	2023-10-19	MTWATR111923JS1-016													
PL-05	ALS	2024-02-13	WP2403718	0.0002	0.00027	<0.00010	<0.00010	97.2	0.00123	0.00132	<0.0010	<0.0010		<0.0010		
PL-05	Flett	2024-02-13	MTWATR030824JS1-014													
PL-05	Flett	2024-02-13	TMWATR022824CH1-014													
PL-05	Flett	2024-02-13	MTWATR030824JS1-013													
PL-05	ALS	2024-02-13	WP2403718-005													
PL-05	ALS	2024-05-20	WP2412615	<0.00010	0.00034	<0.00010	<0.00010	84.3	0.00096	0.00126	<0.0010	<0.0010		<0.0010		
PL-05	ALS	2024-05-20	WP2412615	0.00013	0.00034	<0.00010	<0.00010	86.1	0.00096	0.00123	<0.0010	<0.0010		<0.0010		
PL-05	Flett	2024-05-20	TMWATR061924CH1-006													
PL-05	Flett	2024-05-20	MTWATR061024JS1-006													
PL-05	Flett	2024-05-20	TMWATR061924CH1-005													
PL-05	Flett	2024-05-20	MTWATR061024JS1-005													
PL-05	ALS	2024-08-05	WP2419024	0.00014	0.00023	<0.00010	<0.00010	85.4	0.00127	0.00136	0.0016	<0.0010		0.0012		
PL-05	Flett	2024-08-05	TMWATR091224CH1-004													
PL-05	Flett	2024-08-05	MTWATR091624JS1-019													
PL-05	ALS	2024-10-08	WP2424051	0.00016	0.00035	<0.00010	<0.00010	88.6	0.00184	0.00154	<0.0010	<0.0010		<0.0010		
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019													
PL-05	Flett	2024-10-08	MTWATR112724JS1-019													
PL-05-B	ALS	2024-08-05	WP2419024	0.00017	0.00055	<0.00010	0.00015	92.2	0.00123	0.00157	0.0016	<0.0010		0.0014		
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016													
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016													
PL-05-B	ALS	2024-10-08	WP2424051	0.00013	0.00037	<0.00010	<0.00010	88.4	0.00121	0.00156	<0.0010	<0.0010		<0.0010		
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002													
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002													
RSWQ-1	ALS	2024-10-01	WP2423294	0.00015	0.00054	<0.00010	0.00012	81.3	0.00076	0.00096	<0.0010	<0.0010		<0.0010		
RSWQ-1	ALS	2024-10-01	WP2424435													
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008													
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007													
RSWQ-1-B	ALS	2024-10-01	WP2423294	0.00011	0.00062	<0.00010	0.00013	79.7	0.00066	0.00101	<0.0010	<0.0010		<0.0010		
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005													
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004													
RSWQ-2	ALS	2024-10-01	WP2423294	0.00014	0.00095	<0.00010	0.00021	82.5	0.00086	0.00128	<0.0010	<0.0010		<0.0010		
RSWQ-2	ALS	2024-10-01	WP2423294	0.00012	0.00053	<0.00010	0.00013	80.9	0.00082	0.00105	<0.0010	<0.0010		<0.0010		
RSWQ-2	ALS	2024-10-01	WP2424435													
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006													
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005													
RSWQ-2-B	ALS	2024-10-01	WP2423294	0.00013	0.00335	<0.00010	0.00078	82.2	0.0008	0.0024	<0.0010	<0.0010		<0.0010		
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010													
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010													
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009													
RSWQ-3	ALS	2024-10-01	WP2423294	0.00013	0.00052	<0.00010	0.00012	82	0.00086	0.00111	<0.0010	<0.0010		<0.0010		
RSWQ-3	ALS	2024-10-01	WP2424435													
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009													
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008													
RSWQ-3-B	ALS	2024-10-01	WP2423294	0.00015	0.00058	<0.00010	0.00013	82.9	0.00086	0.00107	<0.0010	<0.0010		<0.0010		
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007													
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006													
SW-01	SGS	2022-06-07	CA15258-JUN22	0.00095	0.00078	0.000176	0.000231	29	0.0009	0.0009			< 0.01			< 0.06
SW-01	SGS	2022-07-13	CA15242-JUL22	0.00128	0.00116	0.000242	0.000237	33	0.0007	0.0008			< 0.01			< 0.06

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005												
PL-05	ALS	2023-10-10	WP2326292-005	39.2	39.3	0.019	0.12	<0.000050	0.000074	<0.0010	<0.0010	2.66	2.87	0.00058	0.00823
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015												
PL-05	Flett	2023-10-19	MTWATR111923JS1-016												
PL-05	ALS	2024-02-13	WP2403718	45.7	44.8	0.02	0.036	<0.000050	<0.000050	0.0022	0.002	3.16	3.18	0.00044	0.00161
PL-05	Flett	2024-02-13	MTWATR030824JS1-014												
PL-05	Flett	2024-02-13	TMWATR022824CH1-014												
PL-05	Flett	2024-02-13	MTWATR030824JS1-013												
PL-05	ALS	2024-02-13	WP2403718-005												
PL-05	ALS	2024-05-20	WP2412615	42.8	42.5	0.029	0.153	<0.000050	0.000056	0.0018	0.0012	3.01	3.04	0.00082	0.00966
PL-05	ALS	2024-05-20	WP2412615	42	41.9	0.03	0.154	<0.000050	0.000051	0.0018	0.0012	2.8	2.97	0.0008	0.0098
PL-05	Flett	2024-05-20	TMWATR061924CH1-006												
PL-05	Flett	2024-05-20	MTWATR061024JS1-006												
PL-05	Flett	2024-05-20	TMWATR061924CH1-005												
PL-05	Flett	2024-05-20	MTWATR061024JS1-005												
PL-05	ALS	2024-08-05	WP2419024	40.5	40.2	0.042	0.08	<0.000050	<0.000050	0.0019	0.0025	2.87	2.78	0.00081	0.005
PL-05	Flett	2024-08-05	TMWATR091224CH1-004												
PL-05	Flett	2024-08-05	MTWATR091624JS1-019												
PL-05	ALS	2024-10-08	WP2424051	39.7	41.8	0.036	0.153	<0.000050	0.000078	<0.0010	0.0014	2.79	2.99	0.00098	0.00806
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019												
PL-05	Flett	2024-10-08	MTWATR112724JS1-019												
PL-05-B	ALS	2024-08-05	WP2419024	41.6	42	0.061	0.291	<0.000050	0.00013	0.0015	0.0029	2.94	2.93	0.00354	0.0374
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016												
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016												
PL-05-B	ALS	2024-10-08	WP2424051	40.6	40.4	0.032	0.156	<0.000050	0.000079	<0.0010	0.0016	2.89	2.95	0.00114	0.00881
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002												
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002												
RSWQ-1	ALS	2024-10-01	WP2423294	38.9	40.7	0.03	0.249	<0.000050	0.000119	<0.0010	<0.0010	2.66	2.78	0.00071	0.00808
RSWQ-1	ALS	2024-10-01	WP2424435												
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008												
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007												
RSWQ-1-B	ALS	2024-10-01	WP2423294	39.3	40.2	0.023	0.279	<0.000050	0.000102	<0.0010	<0.0010	2.7	2.8	0.00063	0.00877
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005												
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004												
RSWQ-2	ALS	2024-10-01	WP2423294	39.9	41.2	0.035	0.431	<0.000050	0.00016	0.0012	<0.0010	2.78	2.96	0.00132	0.00943
RSWQ-2	ALS	2024-10-01	WP2423294	39.4	40.7	0.032	0.25	<0.000050	0.000096	<0.0010	0.001	2.72	2.92	0.00126	0.00766
RSWQ-2	ALS	2024-10-01	WP2424435												
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006												
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005												
RSWQ-2-B	ALS	2024-10-01	WP2423294	39.8	44.8	0.025	1.61	<0.000050	0.000539	<0.0010	0.0024	2.75	3.48	0.00139	0.0406
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010												
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010												
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009												
RSWQ-3	ALS	2024-10-01	WP2423294	40.1	41.5	0.029	0.242	<0.000050	0.000094	0.0011	0.0011	2.83	2.93	0.00071	0.00851
RSWQ-3	ALS	2024-10-01	WP2424435												
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009												
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008												
RSWQ-3-B	ALS	2024-10-01	WP2423294	40	41.4	0.025	0.262	<0.000050	0.000098	0.001	0.0011	2.8	2.97	0.00061	0.00902
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007												
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006												
SW-01	SGS	2022-06-07	CA15258-JUN22	18.9	21.2	0.346	0.428	0.00014	0.00022	0.0008	0.0009	1.48	1.63	0.0148	0.017
SW-01	SGS	2022-07-13	CA15242-JUL22	24.4	23.4	0.642	0.642	0.00024	0.00024	0.0011	0.0011	1.73	1.73	0.0223	0.0217

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005												
PL-05	ALS	2023-10-10	WP2326292-005	<0.0000050		<0.0000050		0.000204	0.000226	0.00072	0.00092	0.0197	0.0197	<0.0010	
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015				0.63								
PL-05	Flett	2023-10-19	MTWATR111923JS1-016		0.016										
PL-05	ALS	2024-02-13	WP2403718	<0.0000050		<0.0000050		0.000278	0.000254	0.00085	0.00088	0.0631	0.0631	<0.0010	
PL-05	Flett	2024-02-13	MTWATR030824JS1-014		0.019										
PL-05	Flett	2024-02-13	TMWATR022824CH1-014				0.58								
PL-05	Flett	2024-02-13	MTWATR030824JS1-013		0.021										
PL-05	ALS	2024-02-13	WP2403718-005												
PL-05	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000203	0.000199	0.00079	0.00097	0.0107	0.0107	<0.0010	
PL-05	ALS	2024-05-20	WP2412615	<0.0000050		<0.0000050		0.000195	0.000212	0.00074	0.00094	0.0166	0.0166	<0.0010	
PL-05	Flett	2024-05-20	TMWATR061924CH1-006				1.26								
PL-05	Flett	2024-05-20	MTWATR061024JS1-006		0.022										
PL-05	Flett	2024-05-20	TMWATR061924CH1-005				1.24								
PL-05	Flett	2024-05-20	MTWATR061024JS1-005		0.027										
PL-05	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000196	0.000192	0.0009	0.00103	<0.0050	<0.0051	<0.0010	
PL-05	Flett	2024-08-05	TMWATR091224CH1-004				1.09								
PL-05	Flett	2024-08-05	MTWATR091624JS1-019		0.037										
PL-05	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.000224	0.000233	0.00091	0.00118	0.0573	0.0573	<0.0010	<0.030
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019				0.88								
PL-05	Flett	2024-10-08	MTWATR112724JS1-019		0.028										
PL-05-B	ALS	2024-08-05	WP2419024	<0.0000050		<0.0000050		0.000237	0.000246	0.00106	0.00142	0.049	0.049	<0.0010	
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016				1.44								
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016		0.043										
PL-05-B	ALS	2024-10-08	WP2424051	<0.0000050		<0.0000050		0.00027	0.000209	0.00089	0.00122	0.0809	0.0809	<0.0010	<0.030
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002		0.029										
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002				1.62								
RSWQ-1	ALS	2024-10-01	WP2423294	<0.0000050		<0.0000050		0.000114	0.000109	<0.00050	0.00063	0.0072	0.0072	<0.0010	<0.030
RSWQ-1	ALS	2024-10-01	WP2424435												
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008				0.92								
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007		0.032										
RSWQ-1-B	ALS	2024-10-01	WP2423294	<0.0000050		<0.0000050		0.000122	0.00011	<0.00050	0.00064	0.0066	0.0066	<0.0010	<0.030
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005				0.91								
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004		0.034										
RSWQ-2	ALS	2024-10-01	WP2423294	<0.0000050		<0.0000050		0.000116	0.000143	<0.00050	0.00096	<0.0050	<0.0051	<0.0010	<0.030
RSWQ-2	ALS	2024-10-01	WP2423294	<0.0000050		<0.0000050		0.000109	0.000124	<0.00050	0.00068	<0.0050	<0.0051	<0.0010	<0.030
RSWQ-2	ALS	2024-10-01	WP2424435												
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006				0.81								
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005		0.034										
RSWQ-2-B	ALS	2024-10-01	WP2423294	<0.0000050		<0.0000050		0.000116	0.000139	<0.00050	0.00252	<0.0050	<0.0051	<0.0010	<0.030
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010		0.232										
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010				5.04								
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009		0.249										
RSWQ-3	ALS	2024-10-01	WP2423294	<0.0000050		<0.0000050		0.000133	0.00014	<0.00050	0.0007	0.0064	0.0064	<0.0010	<0.030
RSWQ-3	ALS	2024-10-01	WP2424435												
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009				0.86								
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008		0.028										
RSWQ-3-B	ALS	2024-10-01	WP2423294	<0.0000050		<0.0000050		0.000136	0.000129	<0.00050	0.00074	0.0064	0.0064	<0.0010	<0.030
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007				0.89								
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006		0.03										
SW-01	SGS	2022-06-07	CA15258-JUN22	< 0.00001		< 0.00001		0.00014	0.00015	0.0011	0.0009	< 0.06	< 0.06	< 0.03	
SW-01	SGS	2022-07-13	CA15242-JUL22	< 0.00001		< 0.00001		< 0.00004	0.00011	0.0012	0.0009	0.07	0.07	<0.03	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005				<0.030								
PL-05	ALS	2023-10-10	WP2326292-005	<0.030		0.0294	<0.030	1.04	1.08		0.00173	0.00183	0.000093	0.000098	1.54
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015												
PL-05	Flett	2023-10-19	MTWATR111923JS1-016												
PL-05	ALS	2024-02-13	WP2403718	<0.030	<0.030	0.0186	<0.050	1.14	1.12		0.00172	0.0018	0.0001	0.000094	1.52
PL-05	Flett	2024-02-13	MTWATR030824JS1-014												
PL-05	Flett	2024-02-13	TMWATR022824CH1-014												
PL-05	Flett	2024-02-13	MTWATR030824JS1-013												
PL-05	ALS	2024-02-13	WP2403718-005				<0.03								
PL-05	ALS	2024-05-20	WP2412615	<0.030	<0.030	0.0201	<0.050	1.03	1.01		0.00132	0.00167	0.000054	<0.000050	1.67
PL-05	ALS	2024-05-20	WP2412615	<0.030	<0.030	0.0203	<0.050	1.03	1.01		0.00137	0.0017	<0.000050	0.0002	1.63
PL-05	Flett	2024-05-20	TMWATR061924CH1-006												
PL-05	Flett	2024-05-20	MTWATR061024JS1-006												
PL-05	Flett	2024-05-20	TMWATR061924CH1-005												
PL-05	Flett	2024-05-20	MTWATR061024JS1-005												
PL-05	ALS	2024-08-05	WP2419024	<0.030	<0.030	0.0178	<0.050	0.963	1.01		0.00156	0.00175	0.0001	<0.000050	1.58
PL-05	Flett	2024-08-05	TMWATR091224CH1-004												
PL-05	Flett	2024-08-05	MTWATR091624JS1-019												
PL-05	ALS	2024-10-08	WP2424051		0.045	0.0325		0.928	1.04		0.00168	0.00195	0.000075	<0.000050	1.8
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019												
PL-05	Flett	2024-10-08	MTWATR112724JS1-019												
PL-05-B	ALS	2024-08-05	WP2419024	<0.030	<0.030	0.0304	<0.050	0.984	1.08		0.00197	0.00237	0.000059	<0.000050	2.37
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016												
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016												
PL-05-B	ALS	2024-10-08	WP2424051		<0.030	0.0316		0.922	1.06		0.00172	0.00184	0.000074	<0.000050	1.75
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002												
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002												
RSWQ-1	ALS	2024-10-01	WP2423294		<0.030	0.0207		0.616	0.673		0.00123	0.0018	0.000086	0.000104	1.71
RSWQ-1	ALS	2024-10-01	WP2424435												
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008												
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007												
RSWQ-1-B	ALS	2024-10-01	WP2423294		0.031	0.022		0.619	0.689		0.00124	0.00174	0.000131	0.000128	1.7
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005												
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004												
RSWQ-2	ALS	2024-10-01	WP2423294		0.036	0.0241		0.681	0.826		0.00115	0.0022	0.000087	<0.000050	1.78
RSWQ-2	ALS	2024-10-01	WP2423294		0.034	0.0221		0.661	0.719		0.00133	0.00184	0.000081	0.000108	1.76
RSWQ-2	ALS	2024-10-01	WP2424435												
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006												
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005												
RSWQ-2-B	ALS	2024-10-01	WP2423294		0.112	0.177		0.684	1.07		0.00119	0.00482	0.000096	0.000085	1.72
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010												
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010												
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009												
RSWQ-3	ALS	2024-10-01	WP2423294		0.039	0.0224		0.672	0.751		0.00129	0.00185	0.000064	0.000094	1.78
RSWQ-3	ALS	2024-10-01	WP2424435												
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009												
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008												
RSWQ-3-B	ALS	2024-10-01	WP2423294		0.041	0.0245		0.681	0.752		0.00125	0.00181	<0.000050	0.000123	1.73
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007												
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006												
SW-01	SGS	2022-06-07	CA15258-JUN22	0.01			0.012	0.214	0.226				0.00013	0.00011	0.87
SW-01	SGS	2022-07-13	CA15242-JUL22	0.013			0.013	0.121	0.14				0.00014	0.00026	0.84

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005													
PL-05	ALS	2023-10-10	WP2326292-005	1.84	<0.000010	<0.000010	1.7	1.8	51.6	4.1	0.0261	0.0262	1.39	1.21	2.82	<0.00020
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015													
PL-05	Flett	2023-10-19	MTWATR111923JS1-016													
PL-05	ALS	2024-02-13	WP2403718	1.6	<0.000010	<0.000010	2.26	2.21	68.3	1.1	0.0293	0.0276	1.32	1.48	3.41	<0.00020
PL-05	Flett	2024-02-13	MTWATR030824JS1-014													
PL-05	Flett	2024-02-13	TMWATR022824CH1-014													
PL-05	Flett	2024-02-13	MTWATR030824JS1-013													
PL-05	ALS	2024-02-13	WP2403718-005													
PL-05	ALS	2024-05-20	WP2412615	2	<0.000010	<0.000010	1.88	1.89	76.2	3	0.0273	0.0265	1.29	1.29	3.26	<0.00020
PL-05	ALS	2024-05-20	WP2412615	2	<0.000010	<0.000010	1.87	1.86	74.6	3.5	0.0263	0.0268	1.39	1.43	3.32	<0.00020
PL-05	Flett	2024-05-20	TMWATR061924CH1-006													
PL-05	Flett	2024-05-20	MTWATR061024JS1-006													
PL-05	Flett	2024-05-20	TMWATR061924CH1-005													
PL-05	Flett	2024-05-20	MTWATR061024JS1-005													
PL-05	ALS	2024-08-05	WP2419024	1.71	<0.000010	<0.000010	2.04	2.11	63.7	2	0.0262	0.0265	1.67	1.64	3.99	<0.00020
PL-05	Flett	2024-08-05	TMWATR091224CH1-004													
PL-05	Flett	2024-08-05	MTWATR091624JS1-019													
PL-05	ALS	2024-10-08	WP2424051	2.24	<0.000010	<0.000010	2	2.18	74.5	3.1	0.0253	0.0277	1.51	1.61	3.87	<0.00020
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019													
PL-05	Flett	2024-10-08	MTWATR112724JS1-019													
PL-05-B	ALS	2024-08-05	WP2419024	2.88	0.000012	<0.000010	1.99	2.1	74	6.2	0.0271	0.0275	1.56	1.67	3.93	<0.00020
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016													
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016													
PL-05-B	ALS	2024-10-08	WP2424051	2.22	<0.000010	<0.000010	1.97	2.23	79.5	3.3	0.0262	0.0261	1.38	1.7	3.88	<0.00020
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002													
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002													
RSWQ-1	ALS	2024-10-01	WP2423294	2.22	<0.000010	<0.000010	1.12	1.12	52.6	7.6	0.0178	0.0184	<0.50	0.6	1.2	<0.00020
RSWQ-1	ALS	2024-10-01	WP2424435													
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008													
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007													
RSWQ-1-B	ALS	2024-10-01	WP2423294	2.18	<0.000010	<0.000010	1.07	1.12	53.6	7.2	0.0178	0.0181	0.51	0.55	1.2	<0.00020
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005													
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004													
RSWQ-2	ALS	2024-10-01	WP2423294	2.58	<0.000010	<0.000010	1.27	1.32	63.6	9.4	0.019	0.0193	0.58	0.6	1.53	<0.00020
RSWQ-2	ALS	2024-10-01	WP2423294	2.08	<0.000010	<0.000010	1.18	1.24	56.9	5.6	0.0184	0.0191	0.57	0.53	1.48	<0.00020
RSWQ-2	ALS	2024-10-01	WP2424435													
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006													
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005													
RSWQ-2-B	ALS	2024-10-01	WP2423294	4.29	<0.000010	<0.000010	1.23	1.53	70.3	153	0.0189	0.0206	0.6	0.62	1.55	<0.00020
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010													
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010													
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009													
RSWQ-3	ALS	2024-10-01	WP2423294	2.08	<0.000010	<0.000010	1.26	1.36	64.6	5.9	0.0191	0.0197	0.61	0.62	1.61	<0.00020
RSWQ-3	ALS	2024-10-01	WP2424435													
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009													
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008													
RSWQ-3-B	ALS	2024-10-01	WP2423294	2.2	<0.000010	<0.000010	1.25	1.39	66.3	6.6	0.0193	0.0196	0.66	0.7	1.6	<0.00020
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007													
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006													
SW-01	SGS	2022-06-07	CA15258-JUN22	1	< 0.00005	< 0.00005	1.11	1.23	77	3	0.0134	0.0146		< 1	< 20	
SW-01	SGS	2022-07-13	CA15242-JUL22	0.75	< 0.00005	< 0.00005	0.95	0.95	114	4	0.0185	0.0188		< 1	< 2	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005													
PL-05	ALS	2023-10-10	WP2326292-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00038	0.0049		<0.00010	<0.00010	0.000083
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015													
PL-05	Flett	2023-10-19	MTWATR111923JS1-016													
PL-05	ALS	2024-02-13	WP2403718	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00089		<0.00010	<0.00010	0.000083
PL-05	Flett	2024-02-13	MTWATR030824JS1-014													
PL-05	Flett	2024-02-13	TMWATR022824CH1-014													
PL-05	Flett	2024-02-13	MTWATR030824JS1-013													
PL-05	ALS	2024-02-13	WP2403718-005													
PL-05	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00047	0.00515		<0.00010	<0.00010	0.000084
PL-05	ALS	2024-05-20	WP2412615	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00056	0.00525		<0.00010	<0.00010	0.000084
PL-05	Flett	2024-05-20	TMWATR061924CH1-006													
PL-05	Flett	2024-05-20	MTWATR061024JS1-006													
PL-05	Flett	2024-05-20	TMWATR061924CH1-005													
PL-05	Flett	2024-05-20	MTWATR061024JS1-005													
PL-05	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00075	0.00209		<0.00010	<0.00010	0.00009
PL-05	Flett	2024-08-05	TMWATR091224CH1-004													
PL-05	Flett	2024-08-05	MTWATR091624JS1-019													
PL-05	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00045	0.00522		<0.00010	<0.00010	0.000089
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019													
PL-05	Flett	2024-10-08	MTWATR112724JS1-019													
PL-05-B	ALS	2024-08-05	WP2419024	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0016	0.0109		<0.00010	<0.00010	0.000086
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016													
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016													
PL-05-B	ALS	2024-10-08	WP2424051	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00036	0.00503		<0.00010	<0.00010	0.000095
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002													
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002													
RSWQ-1	ALS	2024-10-01	WP2423294	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00073	0.0112		<0.00010	<0.00010	0.000051
RSWQ-1	ALS	2024-10-01	WP2424435													
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008													
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007													
RSWQ-1-B	ALS	2024-10-01	WP2423294	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00038	0.0122		<0.00010	<0.00010	0.000052
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005													
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004													
RSWQ-2	ALS	2024-10-01	WP2423294	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0012	0.019		<0.00010	<0.00010	0.000062
RSWQ-2	ALS	2024-10-01	WP2423294	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00077	0.0106		<0.00010	<0.00010	0.000057
RSWQ-2	ALS	2024-10-01	WP2424435													
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006													
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005													
RSWQ-2-B	ALS	2024-10-01	WP2423294	<0.00020	<0.000010	0.000021	<0.00010	0.00015	<0.00010	<0.00010	0.00051	0.0703		<0.00010	<0.00010	0.000063
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010													
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010													
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009													
RSWQ-3	ALS	2024-10-01	WP2423294	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0008	0.0102		<0.00010	<0.00010	0.000058
RSWQ-3	ALS	2024-10-01	WP2424435													
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009													
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008													
RSWQ-3-B	ALS	2024-10-01	WP2423294	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00041	0.0115		<0.00010	<0.00010	0.000056
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007													
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006													
SW-01	SGS	2022-06-07	CA15258-JUN22		0.000005	< 0.000005			< 0.00006	0.00007			33	< 0.00002	0.00035	0.000067
SW-01	SGS	2022-07-13	CA15242-JUL22		0.000006	< 0.000005			< 0.00006	0.00008			40	0.00002	< 0.00002	0.000077

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
PL-05	ALS	2023-08-10	WP2319111-005									
PL-05	ALS	2023-10-10	WP2326292-005	0.000095	<0.00050	0.00073			<0.0010	<0.0030	<0.00030	<0.00020
PL-05	Flett	2023-10-19	TMWATR110223ZB1-015									
PL-05	Flett	2023-10-19	MTWATR111923JS1-016									
PL-05	ALS	2024-02-13	WP2403718	0.000088	<0.00050	0.00055			0.0035	<0.0030	<0.00030	<0.00020
PL-05	Flett	2024-02-13	MTWATR030824JS1-014									
PL-05	Flett	2024-02-13	TMWATR022824CH1-014									
PL-05	Flett	2024-02-13	MTWATR030824JS1-013									
PL-05	ALS	2024-02-13	WP2403718-005									
PL-05	ALS	2024-05-20	WP2412615	0.000095	<0.00050	0.00053			<0.0010	<0.0030	<0.00030	<0.00020
PL-05	ALS	2024-05-20	WP2412615	0.000094	<0.00050	0.00054			<0.0010	<0.0030	<0.00030	<0.00020
PL-05	Flett	2024-05-20	TMWATR061924CH1-006									
PL-05	Flett	2024-05-20	MTWATR061024JS1-006									
PL-05	Flett	2024-05-20	TMWATR061924CH1-005									
PL-05	Flett	2024-05-20	MTWATR061024JS1-005									
PL-05	ALS	2024-08-05	WP2419024	0.000092	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	0.00022
PL-05	Flett	2024-08-05	TMWATR091224CH1-004									
PL-05	Flett	2024-08-05	MTWATR091624JS1-019									
PL-05	ALS	2024-10-08	WP2424051	0.000106	0.00051	0.00083			<0.0010	<0.0030	<0.00030	0.00025
PL-05	Flett	2024-10-08	TMWATR102824ZB1-019									
PL-05	Flett	2024-10-08	MTWATR112724JS1-019									
PL-05-B	ALS	2024-08-05	WP2419024	0.000106	<0.00050	0.0009			<0.0010	<0.0030	<0.00030	0.00031
PL-05-B	Flett	2024-08-05	TMWATR091124CH1-016									
PL-05-B	Flett	2024-08-05	MTWATR091624JS1-016									
PL-05-B	ALS	2024-10-08	WP2424051	0.000107	<0.00050	0.00083			<0.0010	<0.0030	<0.00030	0.00024
PL-05-B	Flett	2024-10-08	MTWATR112624JS1-002									
PL-05-B	Flett	2024-10-08	TMWATR102224ZB2-002									
RSWQ-1	ALS	2024-10-01	WP2423294	0.000066	<0.00050	0.00089			<0.0010	<0.0030	<0.00030	0.00025
RSWQ-1	ALS	2024-10-01	WP2424435									
RSWQ-1	Flett	2024-10-01	TMWATR102524ZB1-008									
RSWQ-1	Flett	2024-10-01	MTWATR111324JS2-007									
RSWQ-1-B	ALS	2024-10-01	WP2423294	0.000069	<0.00050	0.00095			<0.0010	<0.0030	<0.00030	0.00024
RSWQ-1-B	Flett	2024-10-01	TMWATR102524ZB1-005									
RSWQ-1-B	Flett	2024-10-01	MTWATR111324JS2-004									
RSWQ-2	ALS	2024-10-01	WP2423294	0.000085	0.00052	0.00128			<0.0010	<0.0030	<0.00030	0.00033
RSWQ-2	ALS	2024-10-01	WP2423294	0.000064	<0.00050	0.0009			<0.0010	<0.0030	<0.00030	0.00024
RSWQ-2	ALS	2024-10-01	WP2424435									
RSWQ-2	Flett	2024-10-01	TMWATR102524ZB1-006									
RSWQ-2	Flett	2024-10-01	MTWATR111324JS2-005									
RSWQ-2-B	ALS	2024-10-01	WP2423294	0.000136	<0.00050	0.00337			<0.0010	0.0045	<0.00030	0.00055
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-010									
RSWQ-2-B	Flett	2024-10-01	TMWATR102524ZB1-010									
RSWQ-2-B	Flett	2024-10-01	MTWATR111324JS2-009									
RSWQ-3	ALS	2024-10-01	WP2423294	0.000069	<0.00050	0.00089			<0.0010	<0.0030	<0.00030	0.00024
RSWQ-3	ALS	2024-10-01	WP2424435									
RSWQ-3	Flett	2024-10-01	TMWATR102524ZB1-009									
RSWQ-3	Flett	2024-10-01	MTWATR111324JS2-008									
RSWQ-3-B	ALS	2024-10-01	WP2423294	0.000073	<0.00050	0.00097			<0.0010	<0.0030	<0.00030	0.00024
RSWQ-3-B	Flett	2024-10-01	TMWATR102524ZB1-007									
RSWQ-3-B	Flett	2024-10-01	MTWATR111324JS2-006									
SW-01	SGS	2022-06-07	CA15258-JUN22	0.000073	0.00091	0.00114	0.00036	0.00044	< 0.002	< 0.002	< 0.002	< 0.002
SW-01	SGS	2022-07-13	CA15242-JUL22	0.000089	0.00088	0.00095	0.00059	0.00066	0.002	< 0.002	< 0.002	< 0.002

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	5.25	6.51	26.4	12					8		0.403
SW-01	SGS	2022-08-08	CA13558-AUG22	6.63	6.69	20.2	11					10		0.398
SW-01	SGS	2022-09-14	CA15266-SEP22	5.74	6.66	13.1	11					12	0.283	0.284
SW-01	SGS	2022-09-14	CA15266-SEP22	5.74	6.74	13.1	9					13	0.26	0.29
SW-01	SGS	2022-11-07	CA15216-NOV22	6.29	7.03	2.2	< 2					25		0.2
SW-01	SGS	2023-02-08	CA15284-FEB23	6.01	6.63		21					77	0.587	1.69
SW-01	SGS	2023-03-21	CA15408-MAR23	5.67	6.42	3.45	7					29	0.397	1.47
SW-01	SGS	2023-04-10	CA15222-APR23	6.63	6.97	2.92	< 2					10	0.045	1.41
SW-01	ALS	2023-05-14	WP2308112											
SW-01	ALS	2023-05-14	WP2308112	6.23	6.51	14.9	2	7.7	<1.0	<1.0	<1.0	7.7	0.256	0.282
SW-01	ALS	2023-05-14	WP2308112	6.26	6.45	14.8	7.7	7.9	<1.0	<1.0	<1.0	7.9	0.256	0.295
SW-01	ALS	2023-05-14	WP2308112-001											
SW-01	ALS	2023-05-14	WP2308112-008											
SW-01	ALS	2023-06-03	WP2310873	6.93	6.84	30	4.5	11.7	<1.0	<1.0	<1.0	11.7	0.253	0.271
SW-01	ALS	2023-06-03	WP2310873-003											
SW-01	ALS	2023-07-16	WP2316171	6.29	6.58	18.1	3.2	13.6	<1.0	<1.0	<1.0	13.6	0.233	0.219
SW-01	ALS	2023-07-16	WP2316171	6.29	6.58	18.1	3.6	13.5	<1.0	<1.0	<1.0	13.5	0.218	0.215
SW-01	ALS	2023-07-16	WP2316171-006											
SW-01	ALS	2023-07-16	WP2316171-005											
SW-01	ALS	2023-08-05	WP2318603-001	6.13	6.4	22.2	6.6	13.4	<1.0	<1.0	<1.0	13.4	0.219	0.217
SW-01	ALS	2023-09-04	WP2322079-001	5.52	6.7	16.2	4.8	15.8	<1.0	<1.0	<1.0	15.8	0.129	0.135
SW-01	ALS	2023-09-04	WP2322079-006	5.52	6.66	16.2	3.4	15.8	<1.0	<1.0	<1.0	15.8	0.117	0.139
SW-01	ALS	2023-10-11	WP2326289-003	6.27	6.49	8.6	8.1	9.7	<1.0	<1.0	<1.0	9.7	0.329	0.342
SW-01	ALS	2023-10-11	WP2326289-005	7.27	6.45	8.6	8	8.9	<1.0	<1.0	<1.0	8.9	0.313	0.355
SW-01	ALS	2023-11-03	WP2328799	6.63	6.86	1.2	8.7	16.1	<1.0	<1.0	<1.0	16.1	0.294	0.343
SW-01	ALS	2023-11-03	WP2328799-003											
SW-01	ALS	2023-12-09	WP2332240	6.25	6.69	<0.10	33.8	35.2	<1.0	<1.0	<1.0	35.2	0.611	0.666
SW-01	ALS	2023-12-09	WP2332240-004											
SW-01	ALS	2024-01-12	WP2401043	7.02	6.06	0.3	47.8	58.3	<1.0	<1.0	<1.0	58.3	0.634	11.1
SW-01	ALS	2024-01-12	WP2401043-007											
SW-01	ALS	2024-02-05	WP2402956	6.16	6.46	1.6	10	17.9	<1.0	<1.0	<1.0	17.9	0.343	0.4
SW-01	ALS	2024-02-05	WP2402956-003											
SW-01	ALS	2024-03-07	WP2405786	6.84	6.5	0.4	11.2	18.6	<1.0	<1.0	<1.0	18.6	0.338	0.364
SW-01	ALS	2024-03-07	WP2405786	6.84	6.51	0.4	11.7	19.1	<1.0	<1.0	<1.0	19.1	0.336	0.359
SW-01	ALS	2024-03-07	WP2405786-003	6.84	6.51	0.4	11.7	19.1	<1.0	<1.0	<1.0	19.1	0.336	0.359
SW-01	ALS	2024-03-07	WP2405786-002											
SW-01	ALS	2024-04-04	WP2408018	6.11	6.32	0.4	7.9	17	<1.0	<1.0	<1.0	17	0.346	0.411
SW-01	ALS	2024-04-04	WP2408018-004											
SW-01	ALS	2024-05-23	WP2413138	5.54	6.4	7.71	5.1	9	<1.0	<1.0	<1.0	9	0.368	0.38
SW-01	ALS	2024-06-16	WP2415267	6.28	6.09	20	9.4	7.9	<1.0	<1.0	<1.0	7.9	0.452	0.455
SW-01	ALS	2024-06-16	WP2415267	6.28	6.06	20	9.3	7.6	<1.0	<1.0	<1.0	7.6	0.451	0.459
SW-01	ALS	2024-07-08	WP2417256											
SW-01	ALS	2024-07-08	WP2417256	5.58	6.6	27	8.8	11.4	<1.0	<1.0	<1.0	11.4	0.454	0.451
SW-01	ALS	2024-07-08	WP2417256	5.58	5.41	27	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<0.0010	<0.0030
SW-01	ALS	2024-07-08	WP2417256	5.58	6.65	27	9.6	11.8	<1.0	<1.0	<1.0	11.8	0.45	0.448
SW-01	ALS	2024-08-04	WP2419020	5.37	6.68	18.9	3.4	14.3	<1.0	<1.0	<1.0	14.3	0.34	0.364
SW-01	ALS	2024-08-04	WP2419020											
SW-01	ALS	2024-08-04	WP2419020											
SW-01	ALS	2024-08-04	WP2419020		5.5		<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.0010	0.0041
SW-01	ALS	2024-08-04	WP2419020	5.37	6.65	18.9	3.6	13.9	<1.0	<1.0	<1.0	13.9	0.331	0.357
SW-01	ALS	2024-09-02	WP2421364	6.33	6.45	16	6.2	10.7	<1.0	<1.0	<1.0	10.7	0.333	0.361
SW-01	Flett	2024-09-02	TMWATR092924CH1-016											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	0.354			<0.1	< 0.0009	< 0.0009	0.0059	0.0063	0.0079	0.00841	0.000026	0.000013
SW-01	SGS	2022-08-08	CA13558-AUG22	0.374			<0.1	< 0.0009	< 0.0009	0.0065	0.0068	0.00939	0.00937	0.000015	0.000016
SW-01	SGS	2022-09-14	CA15266-SEP22	0.231			0.2	< 0.0009	< 0.0009	0.0053	0.005	0.00755	0.00679	0.000027	0.000021
SW-01	SGS	2022-09-14	CA15266-SEP22	0.24			< 0.1	< 0.0009	< 0.0009	0.0055	0.0051	0.00666	0.00743	0.000017	0.000022
SW-01	SGS	2022-11-07	CA15216-NOV22	0.2			< 0.1	< 0.0009	< 0.0009	0.0035	0.0033	0.00702	0.00711	0.000012	0.000055
SW-01	SGS	2023-02-08	CA15284-FEB23	0.577			1.2	< 0.0009	< 0.0009	0.0252	0.041	0.0327	0.0455	0.000027	0.000055
SW-01	SGS	2023-03-21	CA15408-MAR23	0.439			0.5	< 0.0009	< 0.0009	0.0088	0.0149	0.014	0.0259	0.000021	0.000045
SW-01	SGS	2023-04-10	CA15222-APR23	0.044			0.5	< 0.0009	< 0.0009	0.0018	0.0042	0.00693	0.0155	0.000008	0.000043
SW-01	ALS	2023-05-14	WP2308112												
SW-01	ALS	2023-05-14	WP2308112			<0.0010	0.011	0.00013	0.00013	0.00352	0.00355	0.0054	0.00554	<0.000020	<0.000020
SW-01	ALS	2023-05-14	WP2308112			<0.0010	0.06	0.00012	0.00017	0.00352	0.00354	0.00526	0.00546	<0.000020	<0.000020
SW-01	ALS	2023-05-14	WP2308112-001		0.06										
SW-01	ALS	2023-05-14	WP2308112-008		0.011										
SW-01	ALS	2023-06-03	WP2310873			<0.0010	0.017	0.00016	0.00013	0.00525	0.00539	0.00688	0.00677	<0.000020	<0.000020
SW-01	ALS	2023-06-03	WP2310873-003		0.017										
SW-01	ALS	2023-07-16	WP2316171			<0.0010	0.016	0.0001	0.00015	0.00487	0.0046	0.00536	0.00521	0.000022	0.000021
SW-01	ALS	2023-07-16	WP2316171			<0.0010	0.024	0.00011	0.00018	0.00475	0.00451	0.0051	0.00575	<0.000020	<0.000020
SW-01	ALS	2023-07-16	WP2316171-006		0.016										
SW-01	ALS	2023-07-16	WP2316171-005		0.024										
SW-01	ALS	2023-08-05	WP2318603-001		0.012	<0.0010		0.00012	0.00012	0.00538	0.00521	0.0061	0.00564	<0.000020	<0.000020
SW-01	ALS	2023-09-04	WP2322079-001		0.014	<0.0010		<0.00010	0.00011	0.00444	0.00422	0.00455	0.00515	<0.000020	<0.000020
SW-01	ALS	2023-09-04	WP2322079-006		<0.010	<0.0010		0.00011	0.00014	0.00442	0.00454	0.00466	0.00576	<0.000020	<0.000020
SW-01	ALS	2023-10-11	WP2326289-003		0.0134	<0.0010		0.00015	0.00017	0.00484	0.00484	0.00601	0.00622	<0.000020	<0.000020
SW-01	ALS	2023-10-11	WP2326289-005		0.0145	<0.0010		0.00014	0.00016	0.00482	0.0049	0.00591	0.00576	<0.000020	<0.000020
SW-01	ALS	2023-11-03	WP2328799			<0.0010	0.0133	0.00017	0.00018	0.00453	0.00496	0.00632	0.00678	<0.000020	0.000026
SW-01	ALS	2023-11-03	WP2328799-003		0.0133										
SW-01	ALS	2023-12-09	WP2332240			<0.0010	0.0693	0.00026	0.00028	0.012	0.0121	0.0181	0.0234	0.000036	0.00003
SW-01	ALS	2023-12-09	WP2332240-004		0.0693										
SW-01	ALS	2024-01-12	WP2401043			<0.0010	0.233	0.00032	0.00054	0.0142	0.023	0.0215	0.0979	0.000039	0.000316
SW-01	ALS	2024-01-12	WP2401043-007		0.233										
SW-01	ALS	2024-02-05	WP2402956			<0.0010	0.0216	0.00016	0.00039	0.00531	0.00588	0.00834	0.00973	<0.000020	0.000021
SW-01	ALS	2024-02-05	WP2402956-003		0.0216										
SW-01	ALS	2024-03-07	WP2405786			<0.0010	0.0105	0.00017	0.00019	0.0052	0.00586	0.00904	0.00866	<0.000020	<0.000020
SW-01	ALS	2024-03-07	WP2405786			<0.0010	0.0149	0.00017	0.00018	0.00527	0.00562	0.00977	0.00854	<0.000020	<0.000020
SW-01	ALS	2024-03-07	WP2405786-003		0.0149	<0.0010		0.00017	0.00018	0.00527	0.00562	0.00977	0.00854	<0.000020	<0.000020
SW-01	ALS	2024-03-07	WP2405786-002		0.0105										
SW-01	ALS	2024-04-04	WP2408018			<0.0010	0.0158	0.00015	0.00018	0.00532	0.00575	0.00835	0.00876	0.000055	0.000021
SW-01	ALS	2024-04-04	WP2408018-004		0.0158										
SW-01	ALS	2024-05-23	WP2413138			<0.0010	0.018	0.00014	0.00016	0.00378	0.00396	0.00592	0.00619	0.000021	0.00002
SW-01	ALS	2024-06-16	WP2415267			<0.0010	0.0211	0.00015	0.00018	0.00476	0.00505	0.00798	0.00823	0.000022	0.000024
SW-01	ALS	2024-06-16	WP2415267			<0.0010	0.0219	0.00015	0.00019	0.00491	0.00496	0.00811	0.00812	0.000025	0.000029
SW-01	ALS	2024-07-08	WP2417256												
SW-01	ALS	2024-07-08	WP2417256			<0.0010	0.0479	0.00014	0.00013	0.00527	0.00515	0.009	0.00854	0.000023	0.000028
SW-01	ALS	2024-07-08	WP2417256			<0.0010	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000020
SW-01	ALS	2024-07-08	WP2417256			<0.0010	0.0249	0.00015	0.00013	0.0053	0.00534	0.00892	0.00837	0.000025	0.000028
SW-01	ALS	2024-08-04	WP2419020			<0.0010	0.0189	0.00014	0.00018	0.00591	0.00616	0.00715	0.00721	0.000028	<0.000020
SW-01	ALS	2024-08-04	WP2419020												
SW-01	ALS	2024-08-04	WP2419020												
SW-01	ALS	2024-08-04	WP2419020				0.0063	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.000020	<0.000020
SW-01	ALS	2024-08-04	WP2419020			<0.0010	0.0309	0.00013	0.00014	0.00595	0.00584	0.00707	0.00712	0.000023	0.000032
SW-01	ALS	2024-09-02	WP2421364			<0.0010	0.0137	0.00015	0.00016	0.00554	0.00545	0.00574	0.00625	0.000024	<0.000020
SW-01	Flett	2024-09-02	TMWATR092924CH1-016												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	< 0.00001	< 0.00001	0.004	0.004	0.000006	0.00003	6.82	6.58	39			103	2
SW-01	SGS	2022-08-08	CA13558-AUG22	< 0.00001	< 0.00001	0.005	0.007	0.000016	0.000005	8.38	8.38	54			110	2
SW-01	SGS	2022-09-14	CA15266-SEP22	< 0.00001	< 0.00001	0.005	0.007	0.000004	< 0.000003	8.38	8.08	48			109	2
SW-01	SGS	2022-09-14	CA15266-SEP22	< 0.00001	< 0.00001	0.005	0.007	0.000006	< 0.000003	8.3	8.22	45			134	2
SW-01	SGS	2022-11-07	CA15216-NOV22	< 0.00001	< 0.00001	0.003	0.002	0.000003	0.000042	6.47	6.23	32			87	< 1
SW-01	SGS	2023-02-08	CA15284-FEB23	< 0.00001	0.00002	0.005	0.004	0.000012	0.000057	28.8	30.4	98			236	7
SW-01	SGS	2023-03-21	CA15408-MAR23	< 0.00001	0.00001	0.004	0.006	0.000009	0.000043	11.3	13.3	50			110	2
SW-01	SGS	2023-04-10	CA15222-APR23	< 0.00001	0.00001	0.005	0.009	0.000022	0.00004	3.58	4.22	14			49	11
SW-01	ALS	2023-05-14	WP2308112													
SW-01	ALS	2023-05-14	WP2308112	<0.000050	<0.000050	<0.010	<0.010	0.0000071	<0.0000050	5.3	5.33	36.3	<0.000010	<0.000010		0.19
SW-01	ALS	2023-05-14	WP2308112	<0.000050	<0.000050	<0.010	<0.010	0.0000079	<0.0000050	5.16	5.29	34.8	<0.000010	<0.000010		0.21
SW-01	ALS	2023-05-14	WP2308112-001													
SW-01	ALS	2023-05-14	WP2308112-008													
SW-01	ALS	2023-06-03	WP2310873	<0.000050	<0.000050	<0.010	<0.010	0.0000067	0.0000095	6.57	6.63	37	<0.000010	<0.000010		0.12
SW-01	ALS	2023-06-03	WP2310873-003													
SW-01	ALS	2023-07-16	WP2316171	<0.000050	<0.000050	<0.010	<0.010	0.000006	<0.0000050	7.45	7.6	41.7	<0.000010	<0.000010		<0.10
SW-01	ALS	2023-07-16	WP2316171	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000055	7.31	7.4	42	<0.000010	<0.000010		<0.10
SW-01	ALS	2023-07-16	WP2316171-006													
SW-01	ALS	2023-07-16	WP2316171-005													
SW-01	ALS	2023-08-05	WP2318603-001	<0.000050	<0.000050	<0.010	<0.010	0.0000154	0.0000116	7.21	7.87	35.8	<0.000010	<0.000010		<0.10
SW-01	ALS	2023-09-04	WP2322079-001	<0.000050	<0.000050	<0.010	<0.010	0.0000064	0.0000061	7.29	6.64	36.8	<0.000010	<0.000010		<0.10
SW-01	ALS	2023-09-04	WP2322079-006	<0.000050	<0.000050	<0.010	<0.010	0.0000061	0.000006	6.53	7.61	40.7	<0.000010	<0.000010		<0.10
SW-01	ALS	2023-10-11	WP2326289-003	<0.000050	<0.000050	<0.010	<0.010	0.0000092	0.0000076	5.13	4.95	40.3	<0.000010	<0.000010		0.14
SW-01	ALS	2023-10-11	WP2326289-005	<0.000050	<0.000050	<0.010	<0.010	0.0000064	0.0000097	5.22	5.18	41.7	<0.000010	<0.000010		0.15
SW-01	ALS	2023-11-03	WP2328799	<0.000050	<0.000050	<0.010	<0.010	0.0000068	0.0000091	7.71	7.62	43.9	<0.000010	<0.000010		0.19
SW-01	ALS	2023-11-03	WP2328799-003													
SW-01	ALS	2023-12-09	WP2332240	<0.000050	<0.000050	<0.010	<0.010	0.0000216	0.0000172	15.6	16.9	78.2	<0.000010	<0.000010		0.39
SW-01	ALS	2023-12-09	WP2332240-004													
SW-01	ALS	2024-01-12	WP2401043	<0.000050	0.000088	<0.010	<0.010	0.0000145	0.00016	19	27.6	82.5	<0.000010	0.00116		2.95
SW-01	ALS	2024-01-12	WP2401043-007													
SW-01	ALS	2024-02-05	WP2402956	<0.000050	<0.000050	<0.010	<0.010	0.0000074	0.0000135	8.3	8.86	44.9	<0.000010	0.000012		0.41
SW-01	ALS	2024-02-05	WP2402956-003													
SW-01	ALS	2024-03-07	WP2405786	<0.000050	<0.000050	<0.010	<0.010	0.0000109	0.0000125	8.15	8.7	45.7	<0.000010	<0.000010		0.22
SW-01	ALS	2024-03-07	WP2405786	<0.000050	<0.000050	<0.010	<0.010	0.0000098	0.0000106	8.32	8.64	48	<0.000010	<0.000010		0.24
SW-01	ALS	2024-03-07	WP2405786-003	<0.000050	<0.000050	<0.010	<0.010	0.0000098	0.0000106	8.32	8.64	48	<0.000010	<0.000010		0.24
SW-01	ALS	2024-03-07	WP2405786-002													
SW-01	ALS	2024-04-04	WP2408018	<0.000050	<0.000050	<0.010	<0.010	0.0000118	0.0000109	8.6	8.24	47.1	<0.000010	0.000016		0.98
SW-01	ALS	2024-04-04	WP2408018-004													
SW-01	ALS	2024-05-23	WP2413138	<0.000050	<0.000050	<0.010	<0.010	0.0000087	0.000008	5.78	5.6	45.8	<0.000010	<0.000010		0.12
SW-01	ALS	2024-06-16	WP2415267	<0.000050	<0.000050	<0.010	<0.010	0.00001	0.0000155	6.76	6.87	48	<0.000010	<0.000010		<0.10
SW-01	ALS	2024-06-16	WP2415267	<0.000050	<0.000050	<0.010	<0.010	0.0000093	0.0000153	6.82	6.77	45.3	<0.000010	<0.000010		<0.10
SW-01	ALS	2024-07-08	WP2417256													
SW-01	ALS	2024-07-08	WP2417256	<0.000050	<0.000050	<0.010	<0.010	0.0000071	<0.0000050	8.11	7.75	58	<0.000010	<0.000010		<0.10
SW-01	ALS	2024-07-08	WP2417256	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	<0.050	<0.050	0.81	<0.000010	<0.000010		<0.10
SW-01	ALS	2024-07-08	WP2417256	<0.000050	<0.000050	<0.010	<0.010	0.0000063	<0.0000050	8.19	7.77	53.3	<0.000010	<0.000010		<0.10
SW-01	ALS	2024-08-04	WP2419020	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000078	9.38	9.61	53.5	<0.000010	<0.000010		<0.10
SW-01	ALS	2024-08-04	WP2419020													
SW-01	ALS	2024-08-04	WP2419020													
SW-01	ALS	2024-08-04	WP2419020	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	<0.050	<0.050	<0.50	<0.000010	<0.000010		<0.10
SW-01	ALS	2024-08-04	WP2419020	<0.000050	<0.000050	<0.010	<0.010	0.0000066	0.0000078	9.26	9.84	55.1	<0.000010	<0.000010		<0.10
SW-01	ALS	2024-09-02	WP2421364	<0.000050	<0.000050	<0.010	<0.010	0.0000071	0.000008	7.22	7.43	48	<0.000010	<0.000010		<0.10
SW-01	Flett	2024-09-02	TMWATR092924CH1-016													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	0.00049	0.00093	0.00025	0.000326	33	0.0008	0.0008			< 0.01			< 0.06
SW-01	SGS	2022-08-08	CA13558-AUG22	0.00066	0.00135	0.000162	0.000215	36	0.0008	0.0005			< 0.01			< 0.06
SW-01	SGS	2022-09-14	CA15266-SEP22	0.00085	0.00091	0.000396	0.000393	42	0.0005	0.0005			< 0.01			< 0.06
SW-01	SGS	2022-09-14	CA15266-SEP22	0.0007	0.00087	0.000092	0.000367	44	0.0006	0.0005			< 0.01			0.08
SW-01	SGS	2022-11-07	CA15216-NOV22	0.00051	0.00056	0.000101	0.000095	46	0.0008	0.0008	< 0.005		< 0.01	< 0.01		< 0.06
SW-01	SGS	2023-02-08	CA15284-FEB23	0.00182	0.0045	0.00499	0.00625	151	0.001	0.0033	< 0.005		< 0.01	< 0.01	0.96	< 0.06
SW-01	SGS	2023-03-21	CA15408-MAR23	< 0.00008	0.00291	0.00145	0.00247	71	0.001	0.0026	< 0.005		< 0.01			< 0.06
SW-01	SGS	2023-04-10	CA15222-APR23	0.00077	0.00327	0.000263	0.000846	60	0.0015	0.0027	< 0.005		< 0.01			< 0.06
SW-01	ALS	2023-05-14	WP2308112	0.00058	0.00061											
SW-01	ALS	2023-05-14	WP2308112	0.00057	0.00061	0.00014	0.00015	33.8	0.00076	0.00079	0.0014	0.0012		0.0014		
SW-01	ALS	2023-05-14	WP2308112	0.00058	0.00061	0.00014	0.00015	33.9	0.00078	0.00077	0.0012	0.0013		<0.0010		
SW-01	ALS	2023-05-14	WP2308112-001													
SW-01	ALS	2023-05-14	WP2308112-008													
SW-01	ALS	2023-06-03	WP2310873	0.00067	0.0007	0.00018	0.0002	40.4	0.00096	0.00073	0.0014	0.0018		0.0015		
SW-01	ALS	2023-06-03	WP2310873-003													
SW-01	ALS	2023-07-16	WP2316171	0.00065	0.00063	0.00019	0.00013	46.3	0.00069	0.00068	0.0017	0.0018		0.0021		
SW-01	ALS	2023-07-16	WP2316171	0.00065	0.0007	0.00014	0.00016	46.2	0.00066	0.00066	0.0016	0.0016		0.002		
SW-01	ALS	2023-07-16	WP2316171-006													
SW-01	ALS	2023-07-16	WP2316171-005													
SW-01	ALS	2023-08-05	WP2318603-001	0.0006	0.00055	0.00021	0.0002	44.8	0.00056	0.00056	0.0012	<0.0010		0.0012		
SW-01	ALS	2023-09-04	WP2322079-001	0.00043	0.00049	0.00027	0.00027	47.8	0.00036	<0.00050	<0.0010	<0.0010		<0.0010		
SW-01	ALS	2023-09-04	WP2322079-006	0.00045	0.00053	0.00026	0.00029	47.7	0.00038	<0.00050	<0.0010	0.001		0.0011		
SW-01	ALS	2023-10-11	WP2326289-003	0.00053	0.00064	0.00015	0.00017	35.4	0.00055	0.00065	0.0011	0.0012		0.0011		
SW-01	ALS	2023-10-11	WP2326289-005	0.00052	0.00062	0.00014	0.00016	35.7	0.00056	0.00058	<0.0010	0.0011		<0.0010		
SW-01	ALS	2023-11-03	WP2328799	0.00057	0.00067	0.00014	0.00016	49.2	0.00063	0.0007	<0.0010	0.0011		<0.0010		
SW-01	ALS	2023-11-03	WP2328799-003													
SW-01	ALS	2023-12-09	WP2332240	0.00121	0.00143	0.00234	0.00256	95.8	0.00089	0.00105	0.0023	0.0026		0.0019		
SW-01	ALS	2023-12-09	WP2332240-004													
SW-01	ALS	2024-01-12	WP2401043	0.00176	0.0198	0.00286	0.00816	151	0.00129	0.0114	0.0018	0.0022		0.0018		
SW-01	ALS	2024-01-12	WP2401043-007	.00176 0.0017	0.0198 0.0198											
SW-01	ALS	2024-02-05	WP2402956	0.00072	0.00101	0.00065	0.00069	57.1	0.00062	0.00106	<0.0010	0.0057		0.001		
SW-01	ALS	2024-02-05	WP2402956-003													
SW-01	ALS	2024-03-07	WP2405786	0.00069	0.00076	0.00062	0.00071	55.8	0.00054	0.00069	0.001	0.0014		0.0011		
SW-01	ALS	2024-03-07	WP2405786	0.00065	0.0008	0.00063	0.00068	55.9	0.00058	0.00069	0.0011	0.0014		0.0012		
SW-01	ALS	2024-03-07	WP2405786-003	0.00065	0.0008	0.00063	0.00068	55.9	0.00058	0.00069	0.0011	0.0014		0.0012		
SW-01	ALS	2024-03-07	WP2405786-002													
SW-01	ALS	2024-04-04	WP2408018	0.00074	0.00088	0.0007	0.00075	60.3	0.00066	0.00088	0.0012	0.0013		0.0011		
SW-01	ALS	2024-04-04	WP2408018-004													
SW-01	ALS	2024-05-23	WP2413138	0.00064	0.00065	0.0002	0.00023	34.6	0.00082	0.00088	0.0014	0.0014		0.0013		
SW-01	ALS	2024-06-16	WP2415267	0.00086	0.00092	0.00035	0.00036	36.5	0.00082	0.00088	0.0012	0.0013		0.0014		
SW-01	ALS	2024-06-16	WP2415267	0.0009	0.00092	0.00034	0.00036	36.3	0.00084	0.00094	0.0014	0.0013		0.0012		
SW-01	ALS	2024-07-08	WP2417256	0.00092	0.00088											
SW-01	ALS	2024-07-08	WP2417256	0.00093	0.00088	0.00023	0.00023	42.5	0.00076	0.00062	0.0013	0.0022		0.0017		
SW-01	ALS	2024-07-08	WP2417256	<0.00010	<0.00010	<0.00010	<0.00010	<1.0	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-01	ALS	2024-07-08	WP2417256	0.00092	0.00088	0.00022	<0.00010	43.5	0.00071	0.00061	0.0015	0.0018		0.0016		
SW-01	ALS	2024-08-04	WP2419020	0.0009	0.00093	0.00032	0.00036	49.7	0.00057	0.00056	0.0023	0.0019		0.0023		
SW-01	ALS	2024-08-04	WP2419020	<0.00010	<0.00010											
SW-01	ALS	2024-08-04	WP2419020	0.00093	0.00091											
SW-01	ALS	2024-08-04	WP2419020	<0.00050	<0.00050	<0.00010	<0.00010	1	<0.00020	<0.00050	0.0012	0.0011		0.0011		
SW-01	ALS	2024-08-04	WP2419020	0.00093	0.00091	0.0003	0.00035	49.6	0.00052	0.00053	0.0024	0.0019		0.0023		
SW-01	ALS	2024-09-02	WP2421364	0.00073	0.00082	0.00016	0.00018	39.7	0.00056	0.00058	0.0016	0.0025		0.0021		
SW-01	Flett	2024-09-02	TMWATR092924CH1-016													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	24.4	23.7	0.617	0.644	0.00025	0.00027	0.0011	0.0011	1.8	1.77	0.0229	0.022
SW-01	SGS	2022-08-08	CA13558-AUG22	30	30	0.775	1.15	0.00014	0.00026	0.001	0.0009	2.22	2.2	0.0175	0.0242
SW-01	SGS	2022-09-14	CA15266-SEP22	29.7	28.4	1.16	1.15	0.00025	0.00025			2.13	1.99	0.0456	0.045
SW-01	SGS	2022-09-14	CA15266-SEP22	29.1	29.1	0.918	1.18	0.00017	0.0003			2.04	2.08	0.00735	0.043
SW-01	SGS	2022-11-07	CA15216-NOV22	22.6	21.6	0.338	0.314	0.00014	0.00016			1.55	1.47	0.00711	0.00648
SW-01	SGS	2023-02-08	CA15284-FEB23	99.7	105	6.26	15.6	0.00052	0.00173			6.73	7.01	1.12	1.21
SW-01	SGS	2023-03-21	CA15408-MAR23	40.2	46.7	3.31	6.36	0.00023	0.00122			2.9	3.27	0.268	0.357
SW-01	SGS	2023-04-10	CA15222-APR23	13	15.8	0.132	2.98	< 0.00009	0.00086			0.986	1.29	0.0495	0.0835
SW-01	ALS	2023-05-14	WP2308112												
SW-01	ALS	2023-05-14	WP2308112	19.1	19	0.264	0.364	0.000119	0.000128	<0.0010	0.0011	1.42	1.39	0.00745	0.00843
SW-01	ALS	2023-05-14	WP2308112	18.8	18.8	0.273	0.386	0.000116	0.000136	<0.0010	0.0012	1.45	1.37	0.00746	0.00859
SW-01	ALS	2023-05-14	WP2308112-001												
SW-01	ALS	2023-05-14	WP2308112-008												
SW-01	ALS	2023-06-03	WP2310873	23.5	24	0.524	0.633	0.000131	0.000144	0.0013	0.0016	1.72	1.82	0.0177	0.0184
SW-01	ALS	2023-06-03	WP2310873-003												
SW-01	ALS	2023-07-16	WP2316171	28.4	27.8	0.567	0.531	0.000115	0.000088	0.0015	0.002	2.38	2.14	0.0141	0.0103
SW-01	ALS	2023-07-16	WP2316171	27.8	27.3	0.476	0.573	0.000092	0.000099	0.0013	0.002	2.31	2.14	0.0108	0.0136
SW-01	ALS	2023-07-16	WP2316171-006												
SW-01	ALS	2023-07-16	WP2316171-005												
SW-01	ALS	2023-08-05	WP2318603-001	26.4	27.5	0.532	0.592	0.000085	0.000097	0.001	0.0015	2.05	1.9	0.0178	0.0183
SW-01	ALS	2023-09-04	WP2322079-001	28.4	25.8	0.472	0.544	0.000056	0.000085	0.0016	0.0015	2.47	2.24	0.0266	0.028
SW-01	ALS	2023-09-04	WP2322079-006	25.7	28.5	0.44	0.607	0.000063	0.000077	<0.0010	0.0014	2.29	2.31	0.0263	0.03
SW-01	ALS	2023-10-11	WP2326289-003	20	19.1	0.452	0.556	0.000176	0.00018	<0.0010	<0.0010	1.74	1.63	0.0104	0.0138
SW-01	ALS	2023-10-11	WP2326289-005	20	20.4	0.444	0.512	0.000153	0.00018	<0.0010	0.0011	1.69	1.82	0.01	0.012
SW-01	ALS	2023-11-03	WP2328799	29	29.4	0.446	0.503	0.000102	0.000123	0.0011	0.0014	2.37	2.51	0.0101	0.0119
SW-01	ALS	2023-11-03	WP2328799-003												
SW-01	ALS	2023-12-09	WP2332240	55.8	60.6	3.85	4.22	0.000255	0.000291	0.0026	0.0028	4.09	4.46	0.495	0.52
SW-01	ALS	2023-12-09	WP2332240-004												
SW-01	ALS	2024-01-12	WP2401043	68.8	106	6.1	17.1	0.000322	0.00704	0.0022	0.0183	5.18	8.95	0.607	0.982
SW-01	ALS	2024-01-12	WP2401043-007												
SW-01	ALS	2024-02-05	WP2402956	31.4	33	0.998	1.18	0.00012	0.000212	0.0015	0.0019	2.6	2.64	0.111	0.116
SW-01	ALS	2024-02-05	WP2402956-003												
SW-01	ALS	2024-03-07	WP2405786	29.4	31.6	0.929	1.12	0.00012	0.000146	0.0012	0.0015	2.21	2.39	0.109	0.115
SW-01	ALS	2024-03-07	WP2405786	29.8	32	0.939	1.09	0.000117	0.000137	0.0012	0.0014	2.19	2.52	0.11	0.113
SW-01	ALS	2024-03-07	WP2405786-003	29.8	32	0.939	1.09	0.000117	0.000137	0.0012	0.0014	2.19	2.52	0.11	0.113
SW-01	ALS	2024-03-07	WP2405786-002												
SW-01	ALS	2024-04-04	WP2408018	31.8	31.4	1.05	1.22	0.000145	0.000178	0.0021	0.0013	2.51	2.64	0.116	0.122
SW-01	ALS	2024-04-04	WP2408018-004												
SW-01	ALS	2024-05-23	WP2413138	20.6	20.1	0.439	0.515	0.00017	0.000206	0.0011	<0.0010	1.49	1.48	0.0156	0.0163
SW-01	ALS	2024-06-16	WP2415267	24	24.6	0.783	0.9	0.000203	0.00023	0.0013	0.001	1.73	1.81	0.0318	0.0322
SW-01	ALS	2024-06-16	WP2415267	24.4	24.3	0.777	0.892	0.000213	0.000236	0.0012	0.0011	1.78	1.8	0.0322	0.0324
SW-01	ALS	2024-07-08	WP2417256												
SW-01	ALS	2024-07-08	WP2417256	28.4	27.2	0.788	0.773	0.000184	0.000254	<0.0010	0.0011	1.98	1.91	0.0163	0.0166
SW-01	ALS	2024-07-08	WP2417256	<0.50	<0.50	<0.010	<0.010	<0.000050	<0.000050	<0.0010	<0.0010	<0.0050	<0.0050	<0.00010	<0.00010
SW-01	ALS	2024-07-08	WP2417256	28.6	27.3	0.773	0.635	0.00018	0.000108	0.001	0.0011	1.99	1.93	0.0163	0.00194
SW-01	ALS	2024-08-04	WP2419020	32.8	34.1	1.1	1.37	0.000223	0.00022	0.0015	0.0019	2.28	2.45	0.028	0.0313
SW-01	ALS	2024-08-04	WP2419020												
SW-01	ALS	2024-08-04	WP2419020												
SW-01	ALS	2024-08-04	WP2419020	<0.50	<0.50	<0.010	<0.010	<0.000050	<0.000050	<0.0010	<0.0010	<0.0050	<0.0050	<0.00010	<0.00010
SW-01	ALS	2024-08-04	WP2419020	32.5	34.3	1.08	1.27	0.000217	0.000215	0.0014	0.0034	2.27	2.37	0.0276	0.0298
SW-01	ALS	2024-09-02	WP2421364	25.2	26.4	0.782	0.865	0.000162	0.000164	<0.0010	0.0012	1.75	1.9	0.0111	0.0133
SW-01	Flett	2024-09-02	TMWATR092924CH1-016												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	0.00001		0.00001		0.00009	0.00011	0.0012	0.0012	<0.06	<0.06	<0.03	
SW-01	SGS	2022-08-08	CA13558-AUG22			< 0.00001		0.00005	0.00011	0.0006	0.0006	<0.06	<0.06	<0.03	
SW-01	SGS	2022-09-14	CA15266-SEP22			< 0.00001		0.00006	0.00007	0.0008	0.0009	< 0.06	< 0.06	< 0.03	
SW-01	SGS	2022-09-14	CA15266-SEP22			< 0.00001		0.00006	0.00007	0.0008	0.0009	< 0.06	< 0.06	< 0.03	
SW-01	SGS	2022-11-07	CA15216-NOV22	< 0.00001		< 0.00001		0.00016	0.00017	0.0009	0.0009	< 0.06	< 0.06	< 0.03	
SW-01	SGS	2023-02-08	CA15284-FEB23	0.00002		0.00003		0.00012	0.00022	0.0026	0.0043	< 0.06	< 0.06	< 0.03	
SW-01	SGS	2023-03-21	CA15408-MAR23	0.00001		0.00001		0.0001	0.00019	0.0013	0.0025	< 0.06	< 0.06	< 0.03	
SW-01	SGS	2023-04-10	CA15222-APR23	< 0.00002		< 0.00002		0.00035	0.00035	0.0007	0.0019	0.34	0.34	< 0.03	
SW-01	ALS	2023-05-14	WP2308112												
SW-01	ALS	2023-05-14	WP2308112	<0.0000050		<0.0000050		0.000089	0.00009	0.00061	0.00063	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-05-14	WP2308112	<0.0000050		<0.0000050		0.000083	0.000102	0.00063	0.00069	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-05-14	WP2308112-001												
SW-01	ALS	2023-05-14	WP2308112-008												
SW-01	ALS	2023-06-03	WP2310873	<0.0000050		<0.0000050		0.00011	0.000098	0.00086	0.00085	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-06-03	WP2310873-003												
SW-01	ALS	2023-07-16	WP2316171	<0.0000050		<0.0000050		0.000061	0.000072	0.0009	0.00087	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-07-16	WP2316171	<0.0000050		<0.0000050		0.000061	0.00008	0.00092	0.00085	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-07-16	WP2316171-006												
SW-01	ALS	2023-07-16	WP2316171-005												
SW-01	ALS	2023-08-05	WP2318603-001	<0.0000050		<0.0000050		0.000053	0.000064	0.00078	0.00093	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-09-04	WP2322079-001	<0.0000050		<0.0000050		<0.000050	0.000052	0.00059	0.00065	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-09-04	WP2322079-006	<0.0000050		<0.0000050		<0.000050	0.000059	0.00062	0.00068	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-10-11	WP2326289-003	<0.0000050		<0.0000050		0.000073	0.000085	0.00071	0.00075	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-10-11	WP2326289-005	<0.0000050		<0.0000050		0.000066	0.000088	0.00066	0.0007	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-11-03	WP2328799	<0.0000050		<0.0000050		0.000068	0.000081	0.00072	0.00077	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2023-11-03	WP2328799-003												
SW-01	ALS	2023-12-09	WP2332240	<0.0000050		0.0000054		0.000112	0.000132	0.00153	0.00171	0.0066	0.0125	0.0059	
SW-01	ALS	2023-12-09	WP2332240-004												
SW-01	ALS	2024-01-12	WP2401043	0.0000058		0.0000091		0.000117	0.000357	0.00194	0.0118	0.0246	0.0246	<0.0010	
SW-01	ALS	2024-01-12	WP2401043-007												
SW-01	ALS	2024-02-05	WP2402956	<0.0000050		<0.0000050		0.000089	0.000096	0.0009	0.00105	0.0538	0.0538	<0.0010	
SW-01	ALS	2024-02-05	WP2402956-003												
SW-01	ALS	2024-03-07	WP2405786	<0.0000050		<0.0000050		0.000093	0.000092	0.00075	0.00093	0.0163	0.0163	<0.0010	
SW-01	ALS	2024-03-07	WP2405786	<0.0000050		<0.0000050		0.00007	0.000095	0.00082	0.0009	0.0192	0.0192	<0.0010	
SW-01	ALS	2024-03-07	WP2405786-003	<0.0000050		<0.0000050		0.00007	0.000095	0.00082	0.0009	0.0192	0.0192	<0.0010	
SW-01	ALS	2024-03-07	WP2405786-002												
SW-01	ALS	2024-04-04	WP2408018	<0.0000050		<0.0000050		0.000098	0.000088	0.00096	0.00104	<0.0050	<0.0051	0.003	<0.03
SW-01	ALS	2024-04-04	WP2408018-004												
SW-01	ALS	2024-05-23	WP2413138	<0.0000050		<0.0000050		0.000067	0.00008	0.00078	0.00079	0.0493	0.0493	<0.0010	
SW-01	ALS	2024-06-16	WP2415267	0.0000062		0.0000076		0.000109	0.00018	0.00105	0.00095	0.0082	0.0082	<0.0010	
SW-01	ALS	2024-06-16	WP2415267	0.000006		0.0000079		0.000073	0.000092	0.00109	0.00096	0.0123	0.0123	<0.0010	
SW-01	ALS	2024-07-08	WP2417256												
SW-01	ALS	2024-07-08	WP2417256	0.0000065		0.0000057		0.000064	0.000058	0.00115	0.00086	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2024-07-08	WP2417256	<0.0000050		<0.0000050		<0.000050	<0.000050	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2024-07-08	WP2417256	0.0000059		0.0000054		0.000068	0.000064	0.00115	0.0009	<0.0050	<0.0051	<0.0010	
SW-01	ALS	2024-08-04	WP2419020	<0.0000050		<0.0000050		0.000062	<0.000050	0.00113	0.00119	<0.0050	<0.0051	<0.0010	<0.030
SW-01	ALS	2024-08-04	WP2419020												
SW-01	ALS	2024-08-04	WP2419020												
SW-01	ALS	2024-08-04	WP2419020	<0.0000050		<0.0000050		<0.000050	<0.000050	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-01	ALS	2024-08-04	WP2419020	<0.0000050		<0.0000050		0.000055	0.000054	0.00112	0.00112	<0.0050	<0.0051	<0.0010	<0.030
SW-01	ALS	2024-09-02	WP2421364	<0.0000050		<0.0000050		0.000056	<0.000050	0.00084	0.00095	<0.0050	<0.0051	<0.0010	<0.030
SW-01	Flett	2024-09-02	TMWATR092924CH1-016				4.12								

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	0.006			0.036	0.121	0.133				0.00017	0.00009	0.74
SW-01	SGS	2022-08-08	CA13558-AUG22	< 0.003			< 0.003	0.16	0.156				0.00017	0.00016	3.67
SW-01	SGS	2022-09-14	CA15266-SEP22	0.011			0.025	0.152	0.152				0.00022	0.00014	1.42
SW-01	SGS	2022-09-14	CA15266-SEP22	0.014			0.023	0.129	0.143				0.00034	0.00013	1.44
SW-01	SGS	2022-11-07	CA15216-NOV22	0.016			0.017	0.591	0.576	---			0.00022	0.00091	0.24
SW-01	SGS	2023-02-08	CA15284-FEB23	0.028			0.188	1.97	2.09				0.00039	0.00056	18
SW-01	SGS	2023-03-21	CA15408-MAR23	0.019			0.139	0.818	1.04				0.00024	0.0003	4.89
SW-01	SGS	2023-04-10	CA15222-APR23	0.017			0.133	2.68	2.65				< 0.00004	0.00007	0.54
SW-01	ALS	2023-05-14	WP2308112	<0.030											
SW-01	ALS	2023-05-14	WP2308112	<0.050	<0.030	0.021	<0.050	0.227	0.254		0.00086	0.00085	0.000128	0.000086	2.04
SW-01	ALS	2023-05-14	WP2308112	<0.050	<0.030	0.0226	<0.050	0.235	0.28		0.00078	0.00083	0.000112	0.000086	2
SW-01	ALS	2023-05-14	WP2308112-001	<0.030			<0.030								
SW-01	ALS	2023-05-14	WP2308112-008	<0.030			<0.030								
SW-01	ALS	2023-06-03	WP2310873	<0.030	<0.030	0.0235	<0.050	0.312	0.286		0.00092	0.00089	0.000175	0.000125	0.172
SW-01	ALS	2023-06-03	WP2310873-003				<0.030								
SW-01	ALS	2023-07-16	WP2316171	<0.030	<0.030	0.0262	<0.050	0.136	0.076		0.0005	0.00047	0.000174	0.000176	0.317
SW-01	ALS	2023-07-16	WP2316171	<0.030	<0.030	0.0364	<0.050	0.076	0.107		0.0004	0.00048	0.00018	0.000174	0.211
SW-01	ALS	2023-07-16	WP2316171-006				<0.030								
SW-01	ALS	2023-07-16	WP2316171-005				<0.030								
SW-01	ALS	2023-08-05	WP2318603-001	<0.030		0.0252	<0.030	0.211	0.208		0.00091	0.00098	0.000156	0.000166	0.459
SW-01	ALS	2023-09-04	WP2322079-001	<0.030		0.0324	<0.030	0.523	0.464		0.00201	0.0019	0.000112	0.00011	0.175
SW-01	ALS	2023-09-04	WP2322079-006	<0.030		0.0233	<0.030	0.472	0.539		0.00183	0.00207	0.000129	0.000133	0.227
SW-01	ALS	2023-10-11	WP2326289-003	<0.030		0.0314	<0.030	0.572	0.514		0.00184	0.00181	0.000126	0.000136	1.48
SW-01	ALS	2023-10-11	WP2326289-005	<0.030		0.0253	<0.030	0.554	0.568		0.00186	0.0018	0.000122	0.000124	1.4
SW-01	ALS	2023-11-03	WP2328799	<0.030	<0.030	0.0247	<0.050	0.633	0.679		0.00191	0.00204	0.000118	0.000109	1.17
SW-01	ALS	2023-11-03	WP2328799-003				<0.030								
SW-01	ALS	2023-12-09	WP2332240	<0.030	0.041	0.0429	<0.050	0.869	0.772		0.00219	0.00237	0.000278	0.00025	9.77
SW-01	ALS	2023-12-09	WP2332240-004				0.041								
SW-01	ALS	2024-01-12	WP2401043	0.044	0.778	0.312	0.778	0.966	2.16		0.0028	0.0177	0.000322	0.0005	13.7
SW-01	ALS	2024-01-12	WP2401043-007	<0.050 0.044											
SW-01	ALS	2024-02-05	WP2402956	<0.030	0.043	0.0373	<0.050	0.568	0.782		0.00188	0.00196	0.000144	0.000247	3.09
SW-01	ALS	2024-02-05	WP2402956-003				0.043								
SW-01	ALS	2024-03-07	WP2405786	<0.030	0.069	0.0683	0.069	0.612	0.614		0.00185	0.00192	0.000163	0.000203	2.86
SW-01	ALS	2024-03-07	WP2405786	<0.030	0.062	0.0839	0.062	0.597	0.612		0.00187	0.00186	0.000138	0.000146	2.94
SW-01	ALS	2024-03-07	WP2405786-003	<0.030		0.0839	0.062	0.597	0.612		0.00187	0.00186	0.000138	0.000146	2.94
SW-01	ALS	2024-03-07	WP2405786-002												
SW-01	ALS	2024-04-04	WP2408018	<0.050	0.07	0.0774	0.07	0.629	0.681		0.00184	0.002	0.000153	0.000197	3.06
SW-01	ALS	2024-04-04	WP2408018-004												
SW-01	ALS	2024-05-23	WP2413138	<0.030	<0.030	0.0242	<0.050	0.164	0.155		0.00064	0.00058	<0.000050	0.000153	1.91
SW-01	ALS	2024-06-16	WP2415267	<0.030	<0.030	0.0203	<0.050	0.078	0.089		0.00022	0.00026	0.000142	0.000135	2.56
SW-01	ALS	2024-06-16	WP2415267	<0.030	<0.030	0.0226	<0.050	0.092	0.097		0.00027	0.00028	0.000174	0.000207	2.6
SW-01	ALS	2024-07-08	WP2417256	<0.030											
SW-01	ALS	2024-07-08	WP2417256	<0.030	<0.030	0.0157	<0.050	<0.050	<0.050		<0.00020	<0.00020	0.000181	0.00012	3.03
SW-01	ALS	2024-07-08	WP2417256	<0.030	<0.030	<0.0020	<0.050	<0.050	<0.050		<0.00020	<0.00020	<0.000050	<0.000050	<0.050
SW-01	ALS	2024-07-08	WP2417256	<0.050	<0.030	0.0174	<0.050	<0.050	<0.050		<0.00020	<0.00020	0.000216	0.000173	3.12
SW-01	ALS	2024-08-04	WP2419020	<0.050	<0.030	0.0244	<0.050	0.05	0.05		0.00024	0.00026	0.000086	0.000309	0.186
SW-01	ALS	2024-08-04	WP2419020												
SW-01	ALS	2024-08-04	WP2419020												
SW-01	ALS	2024-08-04	WP2419020	<0.050	<0.030	<0.0020	<0.050	<0.050	<0.050		<0.00020	<0.00020	<0.000050	<0.000050	<0.050
SW-01	ALS	2024-08-04	WP2419020	<0.050	<0.030	0.023	<0.050	<0.050	0.051		0.00022	0.00028	0.000152	0.000256	0.187
SW-01	ALS	2024-09-02	WP2421364	<0.050	<0.030	0.0239	<0.050	0.1	0.103		0.00049	0.00048	0.000148	0.000158	1.8
SW-01	Flett	2024-09-02	TMWATR092924CH1-016												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	0.8	< 0.00005	< 0.00005	0.98	0.98	111	2	0.018	0.021		< 1	< 2	
SW-01	SGS	2022-08-08	CA13558-AUG22	3.44	< 0.00005	< 0.00005	1.07	1.06	149	< 2	0.0236	0.0239	2	2	< 2	
SW-01	SGS	2022-09-14	CA15266-SEP22	1.34	< 0.00005	< 0.00005	1.04	0.99	91	4	0.024	0.0231	< 1	< 1	< 20	
SW-01	SGS	2022-09-14	CA15266-SEP22	1.38	< 0.00005	< 0.00005	1.02	1	91	3	0.0234	0.0236	< 1	< 1	< 2	
SW-01	SGS	2022-11-07	CA15216-NOV22	0.26	< 0.00005	< 0.00005	1.36	1.27	103	9	0.0213	0.0207	< 1	< 1	< 2	
SW-01	SGS	2023-02-08	CA15284-FEB23	18.5	< 0.00005	< 0.00005	5.12	5.1	340	128	0.0763	0.0834	< 1	1	< 2	
SW-01	SGS	2023-03-21	CA15408-MAR23	7.58	< 0.00005	< 0.00005	2.02	2.28	143	39	0.03	0.0369	< 1	< 1	< 20	
SW-01	SGS	2023-04-10	CA15222-APR23	3.23	< 0.00005	< 0.00005	5.49	5.87	77	20	0.0151	0.0211	2	2	2	
SW-01	ALS	2023-05-14	WP2308112													
SW-01	ALS	2023-05-14	WP2308112	2.16	<0.000010	<0.000010	1.09	1.1	57	16.2	0.0131	0.0143	0.7	<0.50	1.31	<0.00020
SW-01	ALS	2023-05-14	WP2308112	2.16	<0.000010	<0.000010	1.17	1.15	58.9	3.4	0.0124	0.0141	0.88	<0.50	1.31	<0.00020
SW-01	ALS	2023-05-14	WP2308112-001													
SW-01	ALS	2023-05-14	WP2308112-008													
SW-01	ALS	2023-06-03	WP2310873	0.23	<0.000010	<0.000010	2	1.37	44.1	2	0.0182	0.0192	<0.50	0.83	0.76	<0.00020
SW-01	ALS	2023-06-03	WP2310873-003													
SW-01	ALS	2023-07-16	WP2316171	0.26	<0.000010	<0.000010	1.22	1.21	82	3.5	0.0216	0.0236	0.52	<0.50	<0.30	<0.00020
SW-01	ALS	2023-07-16	WP2316171	0.27	<0.000010	<0.000010	1.24	1.2	91.2	4.2	0.0221	0.0233	0.56	0.5	<0.30	<0.00020
SW-01	ALS	2023-07-16	WP2316171-006													
SW-01	ALS	2023-07-16	WP2316171-005													
SW-01	ALS	2023-08-05	WP2318603-001	0.46	<0.000010	<0.000010	1.01	0.971	61.2	2.4	0.0197	0.0197	<0.50	<0.50	<0.30	<0.00020
SW-01	ALS	2023-09-04	WP2322079-001	0.26	<0.000010	<0.000010	1.25	1.27	72.7	<1.0	0.0186	0.0232	0.52	<0.50	<0.30	<0.00020
SW-01	ALS	2023-09-04	WP2322079-006	0.29	<0.000010	<0.000010	1.28	1.27	82.9	1.2	0.0189	0.019	<0.50	<0.50	<0.30	<0.00020
SW-01	ALS	2023-10-11	WP2326289-003	1.5	<0.000010	<0.000010	1.45	1.27	75.2	2.4	0.0161	0.0169	<0.50	<0.50	0.33	<0.00020
SW-01	ALS	2023-10-11	WP2326289-005	1.53	<0.000010	<0.000010	1.41	1.52	76.8	1.8	0.0157	0.0161	0.55	<0.50	0.35	<0.00020
SW-01	ALS	2023-11-03	WP2328799	1.32	<0.000010	<0.000010	1.84	1.82	63.2	4.3	0.022	0.0216	0.56	<0.50	0.46	<0.00020
SW-01	ALS	2023-11-03	WP2328799-003													
SW-01	ALS	2023-12-09	WP2332240	10.4	<0.000010	<0.000010	2.66	2.84	201	3.8	0.0439	0.0466	1.43	1.36	1.93	<0.00020
SW-01	ALS	2023-12-09	WP2332240-004													
SW-01	ALS	2024-01-12	WP2401043	30	<0.000010	0.000057	3.74	4.94	262	258	0.0561	0.085	1.54	2	2.9	<0.00020
SW-01	ALS	2024-01-12	WP2401043-007													
SW-01	ALS	2024-02-05	WP2402956	3.3	<0.000010	<0.000010	1.71	1.88	89.2	5.7	0.0229	0.0264	<0.50	0.89	0.58	<0.00020
SW-01	ALS	2024-02-05	WP2402956-003													
SW-01	ALS	2024-03-07	WP2405786	3.27	<0.000010	<0.000010	1.49	1.94	99	11.5	0.0215	0.0229	<0.50	0.51	0.58	<0.00020
SW-01	ALS	2024-03-07	WP2405786	3.22	<0.000010	<0.000010	1.54	1.66	83.4	10.3	0.0214	0.0224	<0.50	0.52	0.58	<0.00020
SW-01	ALS	2024-03-07	WP2405786-003	3.22	<0.000010	<0.000010	1.54	1.66	83.4	10.3	0.0214	0.0224	<0.50	0.52	0.58	<0.00020
SW-01	ALS	2024-03-07	WP2405786-002													
SW-01	ALS	2024-04-04	WP2408018	3.43	<0.000010	<0.000010	2	1.95	101	16.1	0.0223	0.0218	0.58	0.78	2.73	<0.00020
SW-01	ALS	2024-04-04	WP2408018-004													
SW-01	ALS	2024-05-23	WP2413138	1.93	<0.000010	<0.000010	1.08	1.12	79.9	2.8	0.0153	0.0142	0.76	0.65	1.42	<0.00020
SW-01	ALS	2024-06-16	WP2415267	2.68	<0.000010	<0.000010	1.15	1.21	64.1	2.3	0.0183	0.0188	0.54	<0.50	0.51	<0.00020
SW-01	ALS	2024-06-16	WP2415267	2.66	<0.000010	<0.000010	1.19	1.22	80.6	1.8	0.0184	0.0186	0.55	<0.50	0.49	<0.00020
SW-01	ALS	2024-07-08	WP2417256													
SW-01	ALS	2024-07-08	WP2417256	2.94	<0.000010	<0.000010	1.14	1.14	81.8	1.2	0.0209	0.0201	<0.50	<0.50	<0.30	<0.00020
SW-01	ALS	2024-07-08	WP2417256	<0.10	<0.000010	<0.000010	<0.050	<0.050	<3.0	<1.0	<0.00020	<0.00020	<0.50	<0.50	<0.30	<0.00020
SW-01	ALS	2024-07-08	WP2417256	3.04	<0.000010	<0.000010	1.16	1.12	86.4	1.1	0.0212	0.0208	<0.50	<0.50	<0.30	<0.00020
SW-01	ALS	2024-08-04	WP2419020	0.25	<0.000010	<0.000010	1.07	1.19	82	<1.0	0.0254	0.0245	0.52	0.54	<0.30	<0.00020
SW-01	ALS	2024-08-04	WP2419020													
SW-01	ALS	2024-08-04	WP2419020													
SW-01	ALS	2024-08-04	WP2419020	<0.10	<0.000010	<0.000010	<0.050	<0.050	<3.0	<1.0	<0.00020	<0.00020	<0.50	<0.50	<0.30	<0.00020
SW-01	ALS	2024-08-04	WP2419020	0.21	<0.000010	<0.000010	1.06	1.14	80.6	2.7	0.0252	0.0254	<0.50	<0.50	<0.30	<0.00020
SW-01	ALS	2024-09-02	WP2421364	1.88	<0.000010	<0.000010	0.823	0.865	85.4	2	0.0192	0.0193	<0.50	<0.50	<0.30	<0.00020
SW-01	Flett	2024-09-02	TMWATR092924CH1-016													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22		0.00001	0.000005			< 0.00006	< 0.00006			42	< 0.00002	< 0.00002	0.000084
SW-01	SGS	2022-08-08	CA13558-AUG22		0.000009	0.000006			0.00007	0.00014	0.00337	0.00503	53	< 0.00002	< 0.00002	0.000059
SW-01	SGS	2022-09-14	CA15266-SEP22		< 0.000005	< 0.000005			0.00006	< 0.00006	0.00446	0.00469	48	< 0.00002	0.00015	0.000074
SW-01	SGS	2022-09-14	CA15266-SEP22		< 0.000005	< 0.000005			< 0.00006	0.00013	0.00375	0.00483	44	< 0.00002	< 0.00002	0.00007
SW-01	SGS	2022-11-07	CA15216-NOV22		< 0.000005	0.000005			< 0.00006	< 0.00006	0.00301	0.00305	34	< 0.00002	< 0.00002	0.000069
SW-01	SGS	2023-02-08	CA15284-FEB23		0.000017	0.000027			< 0.00006	0.00008	0.0131	0.0588	104	< 0.00002	0.00005	0.000176
SW-01	SGS	2023-03-21	CA15408-MAR23		0.00001	0.000016			0.00019	0.00007	0.00646	0.049	52	< 0.00002	0.00004	0.000094
SW-01	SGS	2023-04-10	CA15222-APR23		< 0.000005	0.000011			< 0.00006	0.00013	0.00105	0.0591	16	0.00003	0.00006	0.000034
SW-01	ALS	2023-05-14	WP2308112													
SW-01	ALS	2023-05-14	WP2308112	<0.00020	<0.000010	<0.000010	0.00011	<0.00010	<0.00010	<0.00010	0.00314	0.00389		<0.00010	<0.00010	0.000054
SW-01	ALS	2023-05-14	WP2308112	<0.00020	<0.000010	<0.000010	0.0001	0.0001	<0.00010	<0.00010	0.00319	0.00461		<0.00010	<0.00010	0.000056
SW-01	ALS	2023-05-14	WP2308112-001													
SW-01	ALS	2023-05-14	WP2308112-008													
SW-01	ALS	2023-06-03	WP2310873	<0.00020	<0.000010	<0.000010	0.00011	0.0001	<0.00010	<0.00010	0.00316	0.00384		<0.00010	<0.00010	0.000073
SW-01	ALS	2023-06-03	WP2310873-003													
SW-01	ALS	2023-07-16	WP2316171	<0.00020	<0.000010	<0.000010	0.00011	<0.00010	<0.00010	<0.00010	0.00273	0.0025		<0.00010	<0.00010	0.000065
SW-01	ALS	2023-07-16	WP2316171	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0023	0.00263		<0.00010	<0.00010	0.000066
SW-01	ALS	2023-07-16	WP2316171-006													
SW-01	ALS	2023-07-16	WP2316171-005													
SW-01	ALS	2023-08-05	WP2318603-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00241	0.00281		<0.00010	<0.00010	0.000051
SW-01	ALS	2023-09-04	WP2322079-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00114	0.00199		<0.00010	<0.00010	0.000038
SW-01	ALS	2023-09-04	WP2322079-006	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00121	0.00239		<0.00010	<0.00010	0.000033
SW-01	ALS	2023-10-11	WP2326289-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00413	0.00518		<0.00010	<0.00010	0.000047
SW-01	ALS	2023-10-11	WP2326289-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00384	0.00448		<0.00010	<0.00010	0.000045
SW-01	ALS	2023-11-03	WP2328799	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00338	0.00443		<0.00010	<0.00010	0.000057
SW-01	ALS	2023-11-03	WP2328799-003													
SW-01	ALS	2023-12-09	WP2332240	<0.00020	0.000014	0.000015	0.00023	0.00022	<0.00010	<0.00010	0.00852	0.0102		<0.00010	<0.00010	0.000139
SW-01	ALS	2023-12-09	WP2332240-004													
SW-01	ALS	2024-01-12	WP2401043	<0.00020	0.000011	0.000111	0.00035	0.00062	<0.00010	0.00022	0.0108	0.465		<0.00010	0.00016	0.000164
SW-01	ALS	2024-01-12	WP2401043-007													
SW-01	ALS	2024-02-05	WP2402956	<0.00020	<0.000010	<0.000010	0.00013	0.00011	<0.00010	0.00013	0.00386	0.00525		<0.00010	<0.00010	0.000076
SW-01	ALS	2024-02-05	WP2402956-003													
SW-01	ALS	2024-03-07	WP2405786	<0.00020	<0.000010	<0.000010	0.00014	0.00014	<0.00010	<0.00010	0.00358	0.00433		<0.00010	<0.00010	0.000075
SW-01	ALS	2024-03-07	WP2405786	<0.00020	<0.000010	<0.000010	0.00015	0.00013	<0.00010	<0.00010	0.0037	0.00422		<0.00010	<0.00010	0.000072
SW-01	ALS	2024-03-07	WP2405786-003	<0.00020	<0.000010	<0.000010	0.00015	0.00013	<0.00010	<0.00010	0.0037	0.00422		<0.00010	<0.00010	0.000072
SW-01	ALS	2024-03-07	WP2405786-002													
SW-01	ALS	2024-04-04	WP2408018	<0.00020	0.000016	<0.000010	0.00013	0.00013	<0.00010	<0.00010	0.00387	0.00704		<0.00010	<0.00010	0.000075
SW-01	ALS	2024-04-04	WP2408018-004													
SW-01	ALS	2024-05-23	WP2413138	<0.00020	<0.000010	<0.000010	0.00014	0.00011	<0.00010	<0.00010	0.00372	0.00437		<0.00010	<0.00010	0.000078
SW-01	ALS	2024-06-16	WP2415267	<0.00020	<0.000010	<0.000010	0.00018	0.00015	<0.00010	<0.00010	0.00481	0.00527		<0.00010	<0.00010	0.000096
SW-01	ALS	2024-06-16	WP2415267	<0.00020	<0.000010	<0.000010	0.00018	0.00015	<0.00010	<0.00010	0.00502	0.00518		<0.00010	<0.00010	0.000092
SW-01	ALS	2024-07-08	WP2417256													
SW-01	ALS	2024-07-08	WP2417256	<0.00020	<0.000010	<0.000010	0.00018	0.00017	<0.00010	<0.00010	0.00492	0.0049		<0.00010	<0.00010	0.000105
SW-01	ALS	2024-07-08	WP2417256	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	<0.000010
SW-01	ALS	2024-07-08	WP2417256	<0.00020	<0.000010	<0.000010	0.00018	0.00017	<0.00010	<0.00010	0.00463	0.00474		<0.00010	<0.00010	0.000105
SW-01	ALS	2024-08-04	WP2419020	0.00023	<0.000010	<0.000010	0.00017	0.00015	<0.00010	<0.00010	0.00389	0.00455		<0.00010	<0.00010	0.000097
SW-01	ALS	2024-08-04	WP2419020													
SW-01	ALS	2024-08-04	WP2419020													
SW-01	ALS	2024-08-04	WP2419020	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	<0.000010
SW-01	ALS	2024-08-04	WP2419020	<0.00020	<0.000010	<0.000010	0.00017	0.00015	<0.00010	<0.00010	0.00385	0.00414		<0.00010	<0.00010	0.000098
SW-01	ALS	2024-09-02	WP2421364	<0.00020	<0.000010	<0.000010	0.00014	0.00011	<0.00010	<0.00010	0.0034	0.00371		<0.00010	<0.00010	0.000076
SW-01	Flett	2024-09-02	TMWATR092924CH1-016													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-01	SGS	2022-07-13	CA15242-JUL22	0.000087	0.00081	0.00094	0.00057	0.00065	0.003	0.002	< 0.002	< 0.002
SW-01	SGS	2022-08-08	CA13558-AUG22	0.000064	0.0005	0.0006	0.00053	0.00057	0.002	0.002	< 0.002	< 0.002
SW-01	SGS	2022-09-14	CA15266-SEP22	0.000067	0.00081	0.00086	0.00041	0.00039	0.002	0.002	< 0.002	< 0.002
SW-01	SGS	2022-09-14	CA15266-SEP22	0.000074	0.00067	0.00084	0.00036	0.00041	< 0.002	0.004	< 0.002	< 0.002
SW-01	SGS	2022-11-07	CA15216-NOV22	0.00007	0.00055	0.00051	0.00029	0.00029	< 0.002	< 0.002	< 0.002	< 0.002
SW-01	SGS	2023-02-08	CA15284-FEB23	0.000308	0.00193	0.00589	0.00117	0.00191	0.015	0.026	< 0.002	< 0.002
SW-01	SGS	2023-03-21	CA15408-MAR23	0.000206	0.00101	0.00327	0.00051	0.00101	0.005	0.011	< 0.002	< 0.002
SW-01	SGS	2023-04-10	CA15222-APR23	0.000069	0.00019	0.00263	0.00015	0.0004	0.006	0.014	< 0.002	< 0.002
SW-01	ALS	2023-05-14	WP2308112									
SW-01	ALS	2023-05-14	WP2308112	0.000054	0.00076	0.00104			0.0019	<0.0030	0.00037	0.00033
SW-01	ALS	2023-05-14	WP2308112	0.000058	0.00078	0.00105			0.0018	<0.0030	0.00035	0.00034
SW-01	ALS	2023-05-14	WP2308112-001									
SW-01	ALS	2023-05-14	WP2308112-008									
SW-01	ALS	2023-06-03	WP2310873	0.000082	0.00076	0.00079			0.0021	<0.0030	0.00047	0.00037
SW-01	ALS	2023-06-03	WP2310873-003									
SW-01	ALS	2023-07-16	WP2316171	0.000058	<0.00050	<0.00050			0.0019	<0.0030	0.00037	0.00034
SW-01	ALS	2023-07-16	WP2316171	0.000059	<0.00050	0.00052			0.002	<0.0030	0.00038	0.0003
SW-01	ALS	2023-07-16	WP2316171-006									
SW-01	ALS	2023-07-16	WP2316171-005									
SW-01	ALS	2023-08-05	WP2318603-001	0.00005	<0.00050	0.00051			0.0021	<0.0030	<0.00030	0.00025
SW-01	ALS	2023-09-04	WP2322079-001	0.000038	<0.00050	<0.00050			0.0016	0.003	<0.00030	<0.00020
SW-01	ALS	2023-09-04	WP2322079-006	0.000038	<0.00050	<0.00050			0.0019	<0.0030	<0.00030	<0.00020
SW-01	ALS	2023-10-11	WP2326289-003	0.000044	0.00067	0.00073			0.0022	<0.0030	0.00033	0.00026
SW-01	ALS	2023-10-11	WP2326289-005	0.000046	0.00062	0.00076			0.0021	<0.0030	0.00032	0.00026
SW-01	ALS	2023-11-03	WP2328799	0.000063	0.00054	0.00086			0.0023	<0.0030	0.00036	0.00028
SW-01	ALS	2023-11-03	WP2328799-003									
SW-01	ALS	2023-12-09	WP2332240	0.000147	0.0015	0.00184			0.0069	0.0071	0.00084	0.00064
SW-01	ALS	2023-12-09	WP2332240-004									
SW-01	ALS	2024-01-12	WP2401043	0.000764	0.00198	0.0188			0.008	0.0581	0.00104	0.00112
SW-01	ALS	2024-01-12	WP2401043-007									
SW-01	ALS	2024-02-05	WP2402956	0.000073	0.00053	0.00083			0.0033	0.0141	0.00044	0.00043
SW-01	ALS	2024-02-05	WP2402956-003									
SW-01	ALS	2024-03-07	WP2405786	0.000078	0.00058	0.0008			0.0034	0.0045	0.00046	0.00045
SW-01	ALS	2024-03-07	WP2405786	0.000075	0.00059	0.00078			0.0038	0.0041	0.00046	0.0004
SW-01	ALS	2024-03-07	WP2405786-003	0.000075	0.00059	0.00078			0.0038	0.0041	0.00046	0.0004
SW-01	ALS	2024-03-07	WP2405786-002									
SW-01	ALS	2024-04-04	WP2408018	0.000075	0.00056	0.0008			0.0044	0.0062	0.00049	0.00042
SW-01	ALS	2024-04-04	WP2408018-004									
SW-01	ALS	2024-05-23	WP2413138	0.000076	0.00086	0.00108			0.0021	<0.0030	0.00049	0.00037
SW-01	ALS	2024-06-16	WP2415267	0.000092	0.00084	0.00095			0.0025	0.003	0.00061	0.00053
SW-01	ALS	2024-06-16	WP2415267	0.000093	0.00086	0.00098			0.0023	0.0031	0.00064	0.00054
SW-01	ALS	2024-07-08	WP2417256									
SW-01	ALS	2024-07-08	WP2417256	0.0001	0.00076	0.00074			0.0024	<0.0030	0.0006	0.00051
SW-01	ALS	2024-07-08	WP2417256	<0.000010	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-01	ALS	2024-07-08	WP2417256	0.000104	0.00074	0.0007			0.0022	<0.0030	0.00059	0.00056
SW-01	ALS	2024-08-04	WP2419020	0.000101	0.00059	0.00071			0.0023	<0.0030	0.00063	0.00052
SW-01	ALS	2024-08-04	WP2419020									
SW-01	ALS	2024-08-04	WP2419020									
SW-01	ALS	2024-08-04	WP2419020	<0.000010	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-01	ALS	2024-08-04	WP2419020	0.000094	0.00059	0.00068			0.0053	<0.0030	0.00061	0.00053
SW-01	ALS	2024-09-02	WP2421364	0.000077	0.00065	0.00086			0.0018	<0.0030	0.00048	0.00042
SW-01	Flett	2024-09-02	TMWATR092924CH1-016									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018											
SW-01	ALS	2024-10-02	WP2423347	6.44	6.62	11.8	6.3	10.2	<1.0	<1.0	<1.0	10.2	0.412	0.456
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002											
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001											
SW-01	Flett	2024-10-02	MTWATR111324JS2-001											
SW-01	ALS	2024-11-02	WP2425500	6.79	6.83	1.3	3.6	15.1	<1.0	<1.0	<1.0	15.1	0.39	0.81
SW-01	ALS	2024-11-02	WP2425500	6.79	6.79	1.3	3.5	14.8	<1.0	<1.0	<1.0	14.8	0.4	0.839
SW-01	Flett	2024-11-02	MTWATR120524JS1-007											
SW-01	Flett	2024-11-02	TMWATR112524CH1-008											
SW-01	ALS	2024-12-01	WP2426900	5.76	6.2	0.6	5.9	10.4	<1.0	<1.0	<1.0	10.4	0.403	0.361
SW-01	Flett	2024-12-01	TMWATR012125CH1-013											
SW-01	Flett	2024-12-01	MTWATR121924JS1-013											
SW-02	SGS	2022-06-02	CA15185-JUN22		6.89		< 2					20		0.355
SW-02	SGS	2022-06-02	CA15185-JUN22		6.94		< 2					24		0.355
SW-02	SGS	2022-07-25	CA15458-JUL22	5.42	7.37	16.7	< 2					29		0.338
SW-02	SGS	2022-08-08	CA13558-AUG22	3.78	7.12	18.9	<2					30		0.281
SW-02	SGS	2022-09-14	CA15266-SEP22	6.38	7.16	13.1	< 2					42	0.226	0.464
SW-02	SGS	2022-10-12	CA15286-OCT22	6.18	7.23	7.2	< 2					41		0.377
SW-02	SGS	2022-11-02	CA15141-NOV22	6.74	7.19	4.8	< 2					36		2.94
SW-02	SGS	2023-04-19	CA15419-APR23	6.81	6.91	0.56	3					17	0.22	0.857
SW-02	ALS	2023-05-14	WP2308112											
SW-02	ALS	2023-05-14	WP2308112	6.73	7.27	12.7	4	25.5	<1.0	<1.0	<1.0	25.5	0.192	0.56
SW-02	ALS	2023-05-14	WP2308112-002											
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001											
SW-03	Flett	2022-05-30	MTWATR061722JS2-001											
SW-03	SGS	2022-05-30	CA14964-JUN22	6.81	7.78	14	< 2					103		0.944
SW-03	SGS	2022-07-26	CA15458-JUL22	6.2	8.18	13.7	< 2					108		2.14
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005											
SW-03	Flett	2022-08-25	MTWATR092022JS1-005											
SW-03	SGS	2022-09-21	CA13964-SEP22	7.47	7.89	10	< 2					133		0.139
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004											
SW-03	Flett	2022-10-12	MTWATR110722JS1-004											
SW-03	SGS	2022-10-12	CA15286-OCT22	7.04	8.05	7.6	< 2					132		0.059
SW-03	SGS	2022-11-08	CA15232-NOV22	7.85	8.09	1.5	< 2					134		0.285
SW-03	ALS	2023-05-14	WP2308112											
SW-03	ALS	2023-05-14	WP2308112	7.26	8.08	6.6	5	109	<1.0	<1.0	<1.0	109	0.0769	0.587
SW-03	ALS	2023-05-14	WP2308112-003											
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001											
SW-03	Flett	2023-05-19	MTWATR060823JS1-001											
SW-03	Flett	2023-06-05	MTWATR062123JS3-004											
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004											
SW-03	ALS	2023-06-05	WP2310937-003	7.74	8.14	21.2	5.3	131	<1.0	<1.0	<1.0	131	0.035	0.316
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007											
SW-03	Flett	2023-07-16	MTWATR080223JS1-009											
SW-03	ALS	2023-07-17	WP2316174-002	8.12	8.14	11.8	<2.0	139	<1.0	<1.0	<1.0	139	0.013	0.204
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003											
SW-03	Flett	2023-08-05	MTWATR082323JS1-004											
SW-03	ALS	2023-08-05	WP2318603-002	7.98	8.09	14.2	<2.0	135	<1.0	<1.0	<1.0	135	0.014	0.152
SW-03	ALS	2023-09-02	WP2322077-011	7.88	8.17	14.2	<2.0	135	<1.0	<1.0	<1.0	135	0.0059	0.116
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008											
SW-03	Flett	2023-09-03	MTWATR091323JS2-008											
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018												
SW-01	ALS	2024-10-02	WP2423347			<0.0010	0.0271	0.00016	0.00017	0.0049	0.00524	0.00577	0.00618	0.000022	0.000027
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002												
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001												
SW-01	Flett	2024-10-02	MTWATR111324JS2-001												
SW-01	ALS	2024-11-02	WP2425500			<0.0010	0.0467	0.00017	0.00017	0.00451	0.0046	0.00487	0.00752	<0.000020	0.000043
SW-01	ALS	2024-11-02	WP2425500			<0.0010	0.064	0.00018	0.00018	0.00438	0.00481	0.00539	0.00768	0.000022	0.000038
SW-01	Flett	2024-11-02	MTWATR120524JS1-007												
SW-01	Flett	2024-11-02	TMWATR112524CH1-008												
SW-01	ALS	2024-12-01	WP2426900			<0.0010	0.0131	0.00012	0.0002	0.00494	0.00492	0.00803	0.00746	<0.000020	<0.000020
SW-01	Flett	2024-12-01	TMWATR012125CH1-013												
SW-01	Flett	2024-12-01	MTWATR121924JS1-013												
SW-02	SGS	2022-06-02	CA15185-JUN22	0.161			< 0.1	< 0.0009	< 0.0009	0.0042	0.0039	0.00912	0.0108	0.000012	0.000015
SW-02	SGS	2022-06-02	CA15185-JUN22	0.162			< 0.1	< 0.0009	< 0.0009	0.0037	0.004	0.00893	0.011	0.000013	0.000014
SW-02	SGS	2022-07-25	CA15458-JUL22	0.165			< 0.1	< 0.0009	< 0.0009	0.0052	0.0052	0.0093	0.0095	0.000023	0.000026
SW-02	SGS	2022-08-08	CA13558-AUG22	0.168			<0.1	< 0.0009	< 0.0009	0.0053	0.0055	0.0114	0.0119	0.000017	0.000013
SW-02	SGS	2022-09-14	CA15266-SEP22	0.107			0.1	< 0.0009	< 0.0009	0.0054	0.0055	0.012	0.0135	0.000028	0.000036
SW-02	SGS	2022-10-12	CA15286-OCT22	0.082			< 0.1	< 0.0009	< 0.0009	0.0028	0.0035	0.0105	0.0134	0.000012	0.000025
SW-02	SGS	2022-11-02	CA15141-NOV22	0.09			< 0.1	< 0.0009	< 0.0009	0.0031	0.004	0.00922	0.0342	0.000016	0.000075
SW-02	SGS	2023-04-19	CA15419-APR23	0.422			< 0.1	< 0.0009	< 0.0009	0.0026	0.0029	0.0101	0.0148	0.000012	0.00003
SW-02	ALS	2023-05-14	WP2308112												
SW-02	ALS	2023-05-14	WP2308112			<0.0010	0.018	<0.00010	<0.00010	0.00316	0.00333	0.0102	0.0128	<0.000020	0.000022
SW-02	ALS	2023-05-14	WP2308112-002		0.018										
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001												
SW-03	Flett	2022-05-30	MTWATR061722JS2-001												
SW-03	SGS	2022-05-30	CA14964-JUN22	0.098			< 0.1	< 0.0009	< 0.0009	0.0021	0.0023	0.0211	0.0299	0.000017	0.000037
SW-03	SGS	2022-07-26	CA15458-JUL22	0.079			< 0.1	< 0.0009	< 0.0009	0.0035	0.0034	0.0188	0.0317	0.000033	0.000068
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005												
SW-03	Flett	2022-08-25	MTWATR092022JS1-005												
SW-03	SGS	2022-09-21	CA13964-SEP22	0.007			< 0.1	< 0.0009	< 0.0009	0.0022	0.0018	0.0127	0.0164	< 0.000007	0.00001
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004												
SW-03	Flett	2022-10-12	MTWATR110722JS1-004												
SW-03	SGS	2022-10-12	CA15286-OCT22	0.004			< 0.1	< 0.0009	< 0.0009	0.001	0.001	0.0136	0.0143	< 0.000007	< 0.000007
SW-03	SGS	2022-11-08	CA15232-NOV22	0.011			< 0.1	< 0.0009	< 0.0009	0.0015	0.0014	0.0156	0.0181	0.000009	0.000009
SW-03	ALS	2023-05-14	WP2308112												
SW-03	ALS	2023-05-14	WP2308112			<0.0010	0.022	<0.00010	<0.00010	0.00126	0.00141	0.0183	0.0218	<0.000020	<0.000020
SW-03	ALS	2023-05-14	WP2308112-003		0.022										
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001												
SW-03	Flett	2023-05-19	MTWATR060823JS1-001												
SW-03	Flett	2023-06-05	MTWATR062123JS3-004												
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004												
SW-03	ALS	2023-06-05	WP2310937-003		0.024	<0.0010		<0.00010	<0.00010	0.00198	0.002	0.0207	0.0227	<0.000020	0.00002
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007												
SW-03	Flett	2023-07-16	MTWATR080223JS1-009												
SW-03	ALS	2023-07-17	WP2316174-002		0.019	<0.0010		<0.00010	<0.00010	0.00196	0.00205	0.0149	0.017	<0.000020	<0.000020
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003												
SW-03	Flett	2023-08-05	MTWATR082323JS1-004												
SW-03	ALS	2023-08-05	WP2318603-002		0.108	0.0026		<0.00010	<0.00010	0.00204	0.00188	0.0165	0.0158	<0.000020	<0.000020
SW-03	ALS	2023-09-02	WP2322077-011		<0.010	<0.0010		<0.00010	<0.00010	0.00165	0.00182	0.014	0.0154	<0.000020	<0.000020
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008												
SW-03	Flett	2023-09-03	MTWATR091323JS2-008												
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018													
SW-01	ALS	2024-10-02	WP2423347	<0.000050	<0.000050	<0.010	<0.010	0.0000075	0.0000081	7.48	7.69	51.8	<0.000010	<0.000010		0.13
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002													
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001													
SW-01	Flett	2024-10-02	MTWATR111324JS2-001													
SW-01	ALS	2024-11-02	WP2425500	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000154	8.25	8.8	54.6	<0.000010	0.000099		0.24
SW-01	ALS	2024-11-02	WP2425500	<0.000050	<0.000050	<0.010	<0.010	0.0000087	0.0000107	8.24	8.94	53.2	<0.000010	0.000107		0.2
SW-01	Flett	2024-11-02	MTWATR120524JS1-007													
SW-01	Flett	2024-11-02	TMWATR112524CH1-008													
SW-01	ALS	2024-12-01	WP2426900	<0.000050	<0.000050	<0.010	<0.010	0.0000122	0.0000073	5.23	7.54	52.2	<0.000010	<0.000010		0.3
SW-01	Flett	2024-12-01	TMWATR012125CH1-013													
SW-01	Flett	2024-12-01	MTWATR121924JS1-013													
SW-02	SGS	2022-06-02	CA15185-JUN22	< 0.00001	< 0.00001	0.002	0.003	0.000013	0.000006	10.9	10.8	35			96	2
SW-02	SGS	2022-06-02	CA15185-JUN22	< 0.00001	< 0.00001	0.002	0.004	0.000025	0.000028	10.8	10.5	36			96	3
SW-02	SGS	2022-07-25	CA15458-JUL22	< 0.00001	< 0.00001	0.006	0.006	0.000011	0.000009	11.6	11.6	46			112	2
SW-02	SGS	2022-08-08	CA13558-AUG22	< 0.00001	< 0.00001	0.006	0.008	< 0.000003	0.000011	15.4	15.4	58			116	2
SW-02	SGS	2022-09-14	CA15266-SEP22	< 0.00001	< 0.00001	0.005	0.008	0.000008	0.000016	14.9	15.4	52			26	2
SW-02	SGS	2022-10-12	CA15286-OCT22	0.00001	0.00001	0.004	0.005	0.000006	0.000011	12.4	12.4	42			94	1
SW-02	SGS	2022-11-02	CA15141-NOV22	< 0.00001	0.00003	0.004	0.006	0.000005	0.00001	12.7	13.4	35			92	3
SW-02	SGS	2023-04-19	CA15419-APR23	< 0.00001	< 0.00001	0.004	0.005	0.000016	0.000017	8.24	8.65	30			90	2
SW-02	ALS	2023-05-14	WP2308112													
SW-02	ALS	2023-05-14	WP2308112	<0.000050	<0.000050	<0.010	<0.010	0.0000092	0.0000081	10.6	10.8	41.8	<0.000010	0.000035		0.24
SW-02	ALS	2023-05-14	WP2308112-002													
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001													
SW-03	Flett	2022-05-30	MTWATR061722JS2-001													
SW-03	SGS	2022-05-30	CA14964-JUN22	< 0.00001	0.00001	0.009	0.01	0.000013	0.000024	29.4	30	19			47	1
SW-03	SGS	2022-07-26	CA15458-JUL22	< 0.00001	0.00002	0.009	0.009	0.000011	0.000031	26.2	30	19			52	1
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005													
SW-03	Flett	2022-08-25	MTWATR092022JS1-005													
SW-03	SGS	2022-09-21	CA13964-SEP22	< 0.00001	< 0.00001	0.006	0.009	< 0.000004	0.000008	40.4	41.9	5			14	< 1
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004													
SW-03	Flett	2022-10-12	MTWATR110722JS1-004													
SW-03	SGS	2022-10-12	CA15286-OCT22	< 0.00001	< 0.00001	0.006	0.007	< 0.000004	0.000003	32.7	31.6	4			< 8	< 1
SW-03	SGS	2022-11-08	CA15232-NOV22	0.00005	< 0.00001	0.009	0.007	0.000004	0.000009	37	36.6	5			10	< 1
SW-03	ALS	2023-05-14	WP2308112													
SW-03	ALS	2023-05-14	WP2308112	<0.000050	<0.000050	<0.010	<0.010	0.0000068	0.0000062	28.7	30.3	16.9	<0.000010	0.000047		0.6
SW-03	ALS	2023-05-14	WP2308112-003													
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001													
SW-03	Flett	2023-05-19	MTWATR060823JS1-001													
SW-03	Flett	2023-06-05	MTWATR062123JS3-004													
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004													
SW-03	ALS	2023-06-05	WP2310937-003	<0.000050	<0.000050	0.017	0.011	<0.0000050	0.0000071	35.8	36.7	12.4	<0.000010	0.000024		0.93
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007													
SW-03	Flett	2023-07-16	MTWATR080223JS1-009													
SW-03	ALS	2023-07-17	WP2316174-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	40.1	41.6	5.2	<0.000010	0.00002		0.8
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003													
SW-03	Flett	2023-08-05	MTWATR082323JS1-004													
SW-03	ALS	2023-08-05	WP2318603-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	38.6	39.6	3.91	<0.000010	0.000018		0.8
SW-03	ALS	2023-09-02	WP2322077-011	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	37.4	36	4.57	<0.000010	0.000014		0.87
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008													
SW-03	Flett	2023-09-03	MTWATR091323JS2-008													
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018													
SW-01	ALS	2024-10-02	WP2423347	0.00078	0.00086	0.00012	0.00015	41.4	0.00059	0.00065	0.0011	<0.0010		0.0013		
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002													
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001													
SW-01	Flett	2024-10-02	MTWATR111324JS2-001													
SW-01	ALS	2024-11-02	WP2425500	0.00091	0.00162	0.00011	0.00038	46.9	0.00092	0.00269	<0.0010	0.0016		0.001		
SW-01	ALS	2024-11-02	WP2425500	0.0009	0.00171	0.00012	0.0004	46.7	0.00089	0.00272	0.001	0.0011		0.0011		
SW-01	Flett	2024-11-02	MTWATR120524JS1-007													
SW-01	Flett	2024-11-02	TMWATR112524CH1-008													
SW-01	ALS	2024-12-01	WP2426900	0.00074	0.00074	0.00018	0.00018	43.2	0.00065	0.00072	0.0012	<0.0010		0.0011		
SW-01	Flett	2024-12-01	TMWATR012125CH1-013													
SW-01	Flett	2024-12-01	MTWATR121924JS1-013													
SW-02	SGS	2022-06-02	CA15185-JUN22	0.0004	0.00081	0.00009	0.000219	49	0.0011	0.0011			< 0.01			< 0.06
SW-02	SGS	2022-06-02	CA15185-JUN22	0.00046	0.0015	0.000087	0.00024	51	0.0011	0.0015			< 0.01			< 0.06
SW-02	SGS	2022-07-25	CA15458-JUL22	0.00066	0.00048	0.000227	0.000248	57	0.0008	0.0009			< 0.01			< 0.06
SW-02	SGS	2022-08-08	CA13558-AUG22	0.00061	0.00069	0.000174	0.000191	67	0.0006	0.0006			< 0.01			< 0.06
SW-02	SGS	2022-09-14	CA15266-SEP22	0.0007	0.0013	0.000438	0.000593	82	0.0014	0.0017			< 0.01			< 0.06
SW-02	SGS	2022-10-12	CA15286-OCT22	0.00043	0.00086	0.000127	0.000318	78	0.0012	0.0013			< 0.01			< 0.06
SW-02	SGS	2022-11-02	CA15141-NOV22	0.0003	0.00538	0.000151	0.00135	69	0.0018	0.0047	< 0.005		< 0.01	< 0.01		< 0.06
SW-02	SGS	2023-04-19	CA15419-APR23	0.00044	0.00146	0.000257	0.000859	53	0.0015	0.0018	< 0.005		< 0.01			< 0.06
SW-02	ALS	2023-05-14	WP2308112	0.0004	0.00106											
SW-02	ALS	2023-05-14	WP2308112	<0.00050	0.00106	0.00016	0.00027	62.6	0.00118	0.00142	0.0011	0.0015		0.0015		
SW-02	ALS	2023-05-14	WP2308112-002	0.0004												
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001													
SW-03	Flett	2022-05-30	MTWATR061722JS2-001													
SW-03	SGS	2022-05-30	CA14964-JUN22	0.00032	0.00166	0.000102	0.000464	194	0.007	0.0028			< 0.01			0.15
SW-03	SGS	2022-07-26	CA15458-JUL22	0.00141	0.00363	0.000249	0.00108	186	0.0024	0.0034			< 0.01			0.14
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005													
SW-03	Flett	2022-08-25	MTWATR092022JS1-005													
SW-03	SGS	2022-09-21	CA13964-SEP22	0.00018	0.00048	0.000064	0.000165	224	0.0007	0.0081			< 0.01			0.17
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004													
SW-03	Flett	2022-10-12	MTWATR110722JS1-004													
SW-03	SGS	2022-10-12	CA15286-OCT22	0.00012	0.00036	0.000032	0.00007	223	0.0004	0.0004			< 0.01			0.18
SW-03	SGS	2022-11-08	CA15232-NOV22	0.00019	0.00076	0.000082	0.000226	226	0.0008	0.0013			< 0.01			0.22
SW-03	ALS	2023-05-14	WP2308112	0.0003	0.00102											
SW-03	ALS	2023-05-14	WP2308112	<0.00050	0.00102	<0.00010	0.00025	209	0.00154	0.002	0.0013	<0.0010		0.0012		
SW-03	ALS	2023-05-14	WP2308112-003	0.0003												
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001													
SW-03	Flett	2023-05-19	MTWATR060823JS1-001													
SW-03	Flett	2023-06-05	MTWATR062123JS3-004													
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004													
SW-03	ALS	2023-06-05	WP2310937-003	0.00032	0.00067	<0.00010	0.00017	234	0.00293	0.00179	0.0013	0.0014		0.0011		
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007													
SW-03	Flett	2023-07-16	MTWATR080223JS1-009													
SW-03	ALS	2023-07-17	WP2316174-002	0.00012	0.00048	<0.00010	0.00016	257	0.00045	0.00065	<0.0010	0.0014		0.0013		
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003													
SW-03	Flett	2023-08-05	MTWATR082323JS1-004													
SW-03	ALS	2023-08-05	WP2318603-002	0.00012	0.00069	<0.00010	0.00012	252	0.00049	0.00062	<0.0010	<0.0010		<0.0010		
SW-03	ALS	2023-09-02	WP2322077-011	0.00012	0.00036	<0.00010	0.0001	248	0.00036	<0.00050	<0.0010	<0.0010		<0.0010		
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008													
SW-03	Flett	2023-09-03	MTWATR091323JS2-008													
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018												
SW-01	ALS	2024-10-02	WP2423347	27.5	28.1	0.764	0.922	0.000148	0.000162	<0.0010	0.0016	2.15	2.17	0.00597	0.00806
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002												
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001												
SW-01	Flett	2024-10-02	MTWATR111324JS2-001												
SW-01	ALS	2024-11-02	WP2425500	30.2	32.4	0.625	1.1	0.000119	0.000432	0.0015	0.0021	2.33	2.52	0.00563	0.0144
SW-01	ALS	2024-11-02	WP2425500	30.2	33	0.63	1.14	0.000118	0.000425	0.0015	0.0022	2.33	2.6	0.00685	0.0149
SW-01	Flett	2024-11-02	MTWATR120524JS1-007												
SW-01	Flett	2024-11-02	TMWATR112524CH1-008												
SW-01	ALS	2024-12-01	WP2426900	21	25.7	0.788	0.845	0.000164	0.000274	0.0024	<0.0010	1.94	1.66	0.0127	0.0128
SW-01	Flett	2024-12-01	TMWATR012125CH1-013												
SW-01	Flett	2024-12-01	MTWATR121924JS1-013												
SW-02	SGS	2022-06-02	CA15185-JUN22	36.3	36.3	0.266	0.51	0.00033	0.00018	0.0008	0.0009	2.24	2.28	0.00209	0.0104
SW-02	SGS	2022-06-02	CA15185-JUN22	36.2	35.1	0.263	0.577	0.00035	0.00045	0.0007	0.0009	2.24	2.19	0.00215	0.0112
SW-02	SGS	2022-07-25	CA15458-JUL22	41.3	41.3	0.616	0.678	0.00012	0.00014	0.002	0.002	3	3.01	0.0146	0.0149
SW-02	SGS	2022-08-08	CA13558-AUG22	54.3	54.2	0.616	0.642	< 0.00009	0.00023	0.0016	0.0016	3.82	3.81	0.0147	0.0148
SW-02	SGS	2022-09-14	CA15266-SEP22	53	55.1	0.908	1.17	0.00019	0.0003			3.84	4.07	0.0547	0.0685
SW-02	SGS	2022-10-12	CA15286-OCT22	43	43.1	0.401	0.726	< 0.00009	0.00023			2.9	2.95	0.0127	0.034
SW-02	SGS	2022-11-02	CA15141-NOV22	45.3	51.5	0.336	3	< 0.00009	0.00101			3.32	4.36	0.016	0.0623
SW-02	SGS	2023-04-19	CA15419-APR23	30.4	32.4	0.427	1.06	0.00018	0.00035			2.38	2.63	0.0465	0.114
SW-02	ALS	2023-05-14	WP2308112												
SW-02	ALS	2023-05-14	WP2308112	38.6	39.1	0.318	0.605	0.000106	0.00022	0.0018	0.0026	2.96	2.95	0.0113	0.0142
SW-02	ALS	2023-05-14	WP2308112-002												
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001												
SW-03	Flett	2022-05-30	MTWATR061722JS2-001												
SW-03	SGS	2022-05-30	CA14964-JUN22	103	105	0.201	0.986	0.00042	0.00038	0.0044	0.005	7.16	7.36	0.0135	0.0596
SW-03	SGS	2022-07-26	CA15458-JUL22	96	109	0.663	2.11	0.0002	0.00067	0.0059	0.0068	7.41	8.26	0.0118	0.125
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005												
SW-03	Flett	2022-08-25	MTWATR092022JS1-005												
SW-03	SGS	2022-09-21	CA13964-SEP22	137	142	0.097	0.249	< 0.00009	0.0001			8.65	8.96	0.00193	0.0307
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004												
SW-03	Flett	2022-10-12	MTWATR110722JS1-004												
SW-03	SGS	2022-10-12	CA15286-OCT22	108	104	0.023	0.113	< 0.00009	< 0.00009			6.31	6.18	0.00019	0.0127
SW-03	SGS	2022-11-08	CA15232-NOV22	128	124	0.09	0.373	< 0.00009	0.00017			8.66	7.86	0.0224	0.0601
SW-03	ALS	2023-05-14	WP2308112												
SW-03	ALS	2023-05-14	WP2308112	104	107	0.125	0.577	<0.000050	0.000196	0.0042	0.005	7.82	7.68	0.0229	0.029
SW-03	ALS	2023-05-14	WP2308112-003												
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001												
SW-03	Flett	2023-05-19	MTWATR060823JS1-001												
SW-03	Flett	2023-06-05	MTWATR062123JS3-004												
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004												
SW-03	ALS	2023-06-05	WP2310937-003	126	130	0.08	0.341	<0.000050	0.000123	0.0059	0.0067	8.84	9.44	0.0183	0.0246
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007												
SW-03	Flett	2023-07-16	MTWATR080223JS1-009												
SW-03	ALS	2023-07-17	WP2316174-002	136	141	0.07	0.32	<0.000050	0.000085	0.0053	0.0071	8.66	9.1	0.0403	0.0556
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003												
SW-03	Flett	2023-08-05	MTWATR082323JS1-004												
SW-03	ALS	2023-08-05	WP2318603-002	129	131	0.07	0.222	<0.000050	0.000066	0.0056	0.006	7.84	7.72	0.0245	0.0298
SW-03	ALS	2023-09-02	WP2322077-011	126	120	0.059	0.19	<0.000050	0.000061	0.0065	0.0066	7.8	7.2	0.00948	0.0207
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008												
SW-03	Flett	2023-09-03	MTWATR091323JS2-008												
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018		0.277										
SW-01	ALS	2024-10-02	WP2423347	<0.0000050		<0.0000050		0.000071	0.000076	0.00106	0.00103	<0.0050	<0.0051	<0.0010	<0.030
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002				6.11								
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001				6.36								
SW-01	Flett	2024-10-02	MTWATR111324JS2-001		0.299										
SW-01	ALS	2024-11-02	WP2425500	<0.0000050		<0.0000050		0.000078	0.000103	0.001	0.00152	<0.0050	<0.0051	<0.0010	0.03
SW-01	ALS	2024-11-02	WP2425500	<0.0000050		<0.0000050		0.000086	0.00011	0.00131	0.00154	<0.0050	<0.0051	<0.0010	<0.030
SW-01	Flett	2024-11-02	MTWATR120524JS1-007		0.27										
SW-01	Flett	2024-11-02	TMWATR112524CH1-008				5.59								
SW-01	ALS	2024-12-01	WP2426900	0.000006		0.0000051		0.000051	0.000091	0.00089	0.00099	0.165	0.165	<0.0010	<0.030
SW-01	Flett	2024-12-01	TMWATR012125CH1-013				7.59								
SW-01	Flett	2024-12-01	MTWATR121924JS1-013		0.274										
SW-02	SGS	2022-06-02	CA15185-JUN22	< 0.00001		< 0.00001		0.00006	0.00008	0.001	0.0013	< 0.06	< 0.06	< 0.03	
SW-02	SGS	2022-06-02	CA15185-JUN22	< 0.00001		< 0.00001		0.00008	0.00012	0.0011	0.0014	< 0.06	< 0.06	< 0.03	
SW-02	SGS	2022-07-25	CA15458-JUL22	< 0.00001		< 0.00001		0.00004	0.00005	0.001	0.0011	< 0.06	< 0.06	< 0.03	
SW-02	SGS	2022-08-08	CA13558-AUG22			< 0.00001		< 0.00004	0.00007	0.0005	0.0006	<0.06	<0.06	<0.03	
SW-02	SGS	2022-09-14	CA15266-SEP22			< 0.00001		0.00007	0.00009	0.0015	0.0018	< 0.06	< 0.06	< 0.03	
SW-02	SGS	2022-10-12	CA15286-OCT22			< 0.00001		0.00008	0.0001	0.001	0.0013	< 0.06	< 0.06	< 0.03	
SW-02	SGS	2022-11-02	CA15141-NOV22	< 0.00001		< 0.00001		0.00009	0.00012	0.001	0.0046	< 0.06	< 0.06	< 0.03	
SW-02	SGS	2023-04-19	CA15419-APR23	0.00001		0.00001		0.0001	0.00011	0.0009	0.0014	0.15	0.15	< 0.03	
SW-02	ALS	2023-05-14	WP2308112												
SW-02	ALS	2023-05-14	WP2308112	<0.0000050		<0.0000050		0.000067	0.000079	0.001	0.00132	0.0052	0.0052	<0.0010	
SW-02	ALS	2023-05-14	WP2308112-002												
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001				6.11								
SW-03	Flett	2022-05-30	MTWATR061722JS2-001		0.151										
SW-03	SGS	2022-05-30	CA14964-JUN22	< 0.00001		< 0.00001		0.00067	0.00081	0.0017	0.0026	0.21	0.21	< 0.03	
SW-03	SGS	2022-07-26	CA15458-JUL22	< 0.00001		< 0.00001		0.00103	0.00065	0.0023	0.0041	0.16	0.16	< 0.03	
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005				2.8								
SW-03	Flett	2022-08-25	MTWATR092022JS1-005		0.169										
SW-03	SGS	2022-09-21	CA13964-SEP22			< 0.00001		0.00142	0.00075	0.0006	0.0008	< 0.06	< 0.06	< 0.03	
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004				0.58								
SW-03	Flett	2022-10-12	MTWATR110722JS1-004		0.059										
SW-03	SGS	2022-10-12	CA15286-OCT22			< 0.00001		0.00071	0.00075	0.0003	0.0003	< 0.06	< 0.06	< 0.03	
SW-03	SGS	2022-11-08	CA15232-NOV22	< 0.00001		< 0.00001		0.00073	0.00073	0.0004	0.0009	0.36	0.36	< 0.03	
SW-03	ALS	2023-05-14	WP2308112												
SW-03	ALS	2023-05-14	WP2308112	<0.0000050		<0.0000050		0.00076	0.000774	0.00106	0.00156	0.779	0.783	0.0042	
SW-03	ALS	2023-05-14	WP2308112-003												
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001				5.61								
SW-03	Flett	2023-05-19	MTWATR060823JS1-001		0.084										
SW-03	Flett	2023-06-05	MTWATR062123JS3-004		0.132										
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004				2.86								
SW-03	ALS	2023-06-05	WP2310937-003	<0.0000050		<0.0000050		0.00103	0.001	0.0013	0.00148	0.149	0.152	0.0027	
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007				7.32								
SW-03	Flett	2023-07-16	MTWATR080223JS1-009		0.209										
SW-03	ALS	2023-07-17	WP2316174-002	<0.0000050		<0.0000050		0.000803	0.000778	<0.00050	0.00061	0.0725	0.0745	0.002	
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003				0.87								
SW-03	Flett	2023-08-05	MTWATR082323JS1-004		0.116										
SW-03	ALS	2023-08-05	WP2318603-002	<0.0000050		<0.0000050		0.000717	0.00077	<0.00050	0.0007	0.0294	0.0306	0.0012	
SW-03	ALS	2023-09-02	WP2322077-011	<0.0000050		<0.0000050		0.000757	0.000833	<0.00050	<0.00050	0.0055	0.0055	<0.0010	
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008				0.67								
SW-03	Flett	2023-09-03	MTWATR091323JS2-008		0.09										
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008				1.04								

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018												
SW-01	ALS	2024-10-02	WP2423347		<0.030	0.0226		0.119	0.117		0.00052	0.00063	0.00013	<0.000050	3.71
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002												
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001												
SW-01	Flett	2024-10-02	MTWATR111324JS2-001												
SW-01	ALS	2024-11-02	WP2425500		0.062	0.0437		0.266	0.276		0.00068	0.00147	0.000126	0.000164	1.19
SW-01	ALS	2024-11-02	WP2425500		0.046	0.0264		0.263	0.285		0.00072	0.00163	0.000157	0.000154	1.2
SW-01	Flett	2024-11-02	MTWATR120524JS1-007												
SW-01	Flett	2024-11-02	TMWATR112524CH1-008												
SW-01	ALS	2024-12-01	WP2426900		<0.030	0.0263		0.198	0.159		0.00068	0.00078	0.000132	<0.000050	6.13
SW-01	Flett	2024-12-01	TMWATR012125CH1-013												
SW-01	Flett	2024-12-01	MTWATR121924JS1-013												
SW-02	SGS	2022-06-02	CA15185-JUN22	0.007			0.026	0.858	0.895				0.00013	0.00012	1.04
SW-02	SGS	2022-06-02	CA15185-JUN22	0.01			0.021	0.843	0.86				0.00011	0.00011	1.04
SW-02	SGS	2022-07-25	CA15458-JUL22	0.018			0.033	0.105	0.139				0.0001	0.00011	3.26
SW-02	SGS	2022-08-08	CA13558-AUG22	< 0.003			0.013	0.14	0.162				0.00016	0.00014	3.92
SW-02	SGS	2022-09-14	CA15266-SEP22	0.026			0.042	0.524	0.612				0.00012	0.00009	4.51
SW-02	SGS	2022-10-12	CA15286-OCT22	0.019			0.03	0.776	0.871				0.00005	0.00013	3.33
SW-02	SGS	2022-11-02	CA15141-NOV22	0.014			0.062	1.1	1.8				0.00008	0.00008	5.21
SW-02	SGS	2023-04-19	CA15419-APR23	0.025			0.052	1.91	2.12				0.00005	0.0001	3.62
SW-02	ALS	2023-05-14	WP2308112	<0.030											
SW-02	ALS	2023-05-14	WP2308112	<0.050	<0.030	0.0266	<0.050	0.902	1.05		0.00104	0.00168	0.000083	0.000125	1.06
SW-02	ALS	2023-05-14	WP2308112-002	<0.030			<0.030								
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001												
SW-03	Flett	2022-05-30	MTWATR061722JS2-001												
SW-03	SGS	2022-05-30	CA14964-JUN22	0.009			0.053	2.38	2.64				0.00017	0.00019	5.51
SW-03	SGS	2022-07-26	CA15458-JUL22	0.029			0.074	2.1	2.41				0.00031	0.00021	7.25
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005												
SW-03	Flett	2022-08-25	MTWATR092022JS1-005												
SW-03	SGS	2022-09-21	CA13964-SEP22	0.011			0.029	2.43	2.52				0.00016	0.00011	5.76
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004												
SW-03	Flett	2022-10-12	MTWATR110722JS1-004												
SW-03	SGS	2022-10-12	CA15286-OCT22	0.007			0.011	1.87	1.88				0.00011	0.00013	4.69
SW-03	SGS	2022-11-08	CA15232-NOV22	0.01			0.02	2.51	2.24	---			0.00012	0.00011	6.84
SW-03	ALS	2023-05-14	WP2308112	<0.030											
SW-03	ALS	2023-05-14	WP2308112	<0.050	<0.030	0.0303	<0.050	1.85	2.17		0.00073	0.00159	0.000153	0.000177	4.97
SW-03	ALS	2023-05-14	WP2308112-003	<0.030			<0.030								
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001												
SW-03	Flett	2023-05-19	MTWATR060823JS1-001												
SW-03	Flett	2023-06-05	MTWATR062123JS3-004												
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004												
SW-03	ALS	2023-06-05	WP2310937-003	<0.030		0.0279	<0.030	2.23	2.24		0.0009	0.00138	0.000227	0.000141	5.59
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007												
SW-03	Flett	2023-07-16	MTWATR080223JS1-009												
SW-03	ALS	2023-07-17	WP2316174-002	<0.030		0.0286	0.035	1.89	2.03		0.00071	0.00111	0.000108	0.000102	6.21
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003												
SW-03	Flett	2023-08-05	MTWATR082323JS1-004												
SW-03	ALS	2023-08-05	WP2318603-002	<0.030		0.0285	<0.030	1.88	1.78		0.00076	0.00102	0.000139	0.000094	6.16
SW-03	ALS	2023-09-02	WP2322077-011	<0.030		0.0209	0.042	2.19	2.05		0.00075	0.00093	0.000082	<0.000050	6.47
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008												
SW-03	Flett	2023-09-03	MTWATR091323JS2-008												
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018													
SW-01	ALS	2024-10-02	WP2423347	3.9	<0.000010	<0.000010	1.22	1.18	98.2	2.1	0.0204	0.0201	<0.50	0.64	0.42	<0.00020
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002													
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001													
SW-01	Flett	2024-10-02	MTWATR111324JS2-001													
SW-01	ALS	2024-11-02	WP2425500	1.86	<0.000010	<0.000010	1.58	1.59	95.7	21.4	0.0209	0.0218	<0.50	<0.50	0.32	<0.00020
SW-01	ALS	2024-11-02	WP2425500	1.86	<0.000010	<0.000010	1.51	1.56	74	9.5	0.0216	0.0233	<0.50	<0.50	0.32	<0.00020
SW-01	Flett	2024-11-02	MTWATR120524JS1-007													
SW-01	Flett	2024-11-02	TMWATR112524CH1-008													
SW-01	ALS	2024-12-01	WP2426900	5.53	<0.000010	<0.000010	1.27	1.02	110	<1.0	0.0134	0.0192	0.6	<0.50	0.71	<0.00020
SW-01	Flett	2024-12-01	TMWATR012125CH1-013													
SW-01	Flett	2024-12-01	MTWATR121924JS1-013													
SW-02	SGS	2022-06-02	CA15185-JUN22	1.41	< 0.00005	< 0.00005	0.93	0.95	100	3	0.0249	0.0248		2	< 20	
SW-02	SGS	2022-06-02	CA15185-JUN22	1.4	< 0.00005	< 0.00005	0.94	0.91	94	3	0.0234	0.0254		2	< 20	
SW-02	SGS	2022-07-25	CA15458-JUL22	3.41	< 0.00005	< 0.00005	0.81	0.83	157	6	0.0288	0.0292		2	< 20	
SW-02	SGS	2022-08-08	CA13558-AUG22	4.11	< 0.00005	< 0.00005	1.03	1.04	169	4	0.034	0.0339	2	3	< 20	
SW-02	SGS	2022-09-14	CA15266-SEP22	4.83	< 0.00005	< 0.00005	1.16	1.25	123	7	0.0365	0.0394	< 1	1	< 20	
SW-02	SGS	2022-10-12	CA15286-OCT22	4.09	< 0.00005	< 0.00005	1.17	1.2	117	16	0.0301	0.031	< 1	< 1	< 20	
SW-02	SGS	2022-11-02	CA15141-NOV22	12	< 0.00005	< 0.00005	1.37	1.81	154	22	0.0263	0.0329	< 1	< 1	< 2	
SW-02	SGS	2023-04-19	CA15419-APR23	5	< 0.00005	< 0.00005	0.98	1.11	83	11	0.0176	0.0195	< 1	< 1	< 2	
SW-02	ALS	2023-05-14	WP2308112													
SW-02	ALS	2023-05-14	WP2308112	1.91	<0.000010	<0.000010	1.22	1.23	93	5.2	0.0207	0.0228	<0.50	<0.50	<0.30	<0.00020
SW-02	ALS	2023-05-14	WP2308112-002													
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001													
SW-03	Flett	2022-05-30	MTWATR061722JS2-001													
SW-03	SGS	2022-05-30	CA14964-JUN22	7.32	< 0.00005	< 0.00005	2.44	2.53	180	32	0.0472	0.04886		< 1	< 2	
SW-03	SGS	2022-07-26	CA15458-JUL22	9.26	< 0.00005	< 0.00005	2.59	2.64	160	39	0.0482	0.056		2	< 2	
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005													
SW-03	Flett	2022-08-25	MTWATR092022JS1-005													
SW-03	SGS	2022-09-21	CA13964-SEP22	5.82	< 0.00005	< 0.00005	2.94	2.98	163	22	0.0562	0.058	2	2	2	
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004													
SW-03	Flett	2022-10-12	MTWATR110722JS1-004													
SW-03	SGS	2022-10-12	CA15286-OCT22	4.8	< 0.00005	< 0.00005	2.23	2.26	134	2	0.0491	0.0485	2	2	4	
SW-03	SGS	2022-11-08	CA15232-NOV22	6.48	< 0.00005	< 0.00005	3.02	3.04	154	440	0.0536	0.0532	2	2	7	
SW-03	ALS	2023-05-14	WP2308112													
SW-03	ALS	2023-05-14	WP2308112	6.4	<0.000010	<0.000010	2.64	2.62	146	5.6	0.0413	0.0491	1.27	0.76	2.84	<0.00020
SW-03	ALS	2023-05-14	WP2308112-003													
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001													
SW-03	Flett	2023-05-19	MTWATR060823JS1-001													
SW-03	Flett	2023-06-05	MTWATR062123JS3-004													
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004													
SW-03	ALS	2023-06-05	WP2310937-003	6.56	<0.000010	<0.000010	2.98	3.15	154	5.4	0.0547	0.0554	1.04	1.61	2.82	<0.00020
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007													
SW-03	Flett	2023-07-16	MTWATR080223JS1-009													
SW-03	ALS	2023-07-17	WP2316174-002	6.84	<0.000010	<0.000010	2.78	3.11	159	218	0.055	0.0533	1.19	1.25	3.02	<0.00020
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003													
SW-03	Flett	2023-08-05	MTWATR082323JS1-004													
SW-03	ALS	2023-08-05	WP2318603-002	5.87	<0.000010	<0.000010	2.62	2.65	156	5.8	0.0518	0.0496	0.89	1.38	3.08	<0.00020
SW-03	ALS	2023-09-02	WP2322077-011	6.22	<0.000010	<0.000010	2.66	2.67	155	7.4	0.05	0.0605	1.33	1.14	2.72	<0.00020
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008													
SW-03	Flett	2023-09-03	MTWATR091323JS2-008													
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018													
SW-01	ALS	2024-10-02	WP2423347	<0.00020	<0.000010	<0.000010	0.00016	0.00013	<0.00010	<0.00010	0.00438	0.00555		<0.00010	<0.00010	0.000088
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002													
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001													
SW-01	Flett	2024-10-02	MTWATR111324JS2-001													
SW-01	ALS	2024-11-02	WP2425500	<0.00020	<0.000010	0.000013	0.00016	0.00024	<0.00010	<0.00010	0.00405	0.0314		<0.00010	<0.00010	0.000089
SW-01	ALS	2024-11-02	WP2425500	<0.00020	<0.000010	0.000012	0.00016	0.00021	<0.00010	<0.00010	0.00431	0.0332		<0.00010	<0.00010	0.000091
SW-01	Flett	2024-11-02	MTWATR120524JS1-007													
SW-01	Flett	2024-11-02	TMWATR112524CH1-008													
SW-01	ALS	2024-12-01	WP2426900	<0.00020	<0.000010	<0.000010	<0.00010	0.00014	<0.00010	<0.00010	0.00496	0.00508		<0.00010	<0.00010	0.000066
SW-01	Flett	2024-12-01	TMWATR012125CH1-013													
SW-01	Flett	2024-12-01	MTWATR121924JS1-013													
SW-02	SGS	2022-06-02	CA15185-JUN22		< 0.000005	0.000005			0.00011	< 0.00006			38	< 0.00002	< 0.00002	0.000027
SW-02	SGS	2022-06-02	CA15185-JUN22		< 0.000005	0.000005			0.0002	0.00022			38	< 0.00002	0.00006	0.000026
SW-02	SGS	2022-07-25	CA15458-JUL22		< 0.000005	< 0.000005			0.0001	0.00007			45	0.00002	0.00003	0.000029
SW-02	SGS	2022-08-08	CA13558-AUG22		< 0.000005	< 0.000005			< 0.00006	0.00011	0.00706	0.00845	57	< 0.00002	< 0.00002	0.000032
SW-02	SGS	2022-09-14	CA15266-SEP22		< 0.000005	0.000006			< 0.00006	< 0.00006	0.0109	0.0205	49	< 0.00002	< 0.00002	0.000048
SW-02	SGS	2022-10-12	CA15286-OCT22		< 0.000005	0.000006			< 0.00006	0.00008	0.00349	0.0151	39	0.00002	0.00003	0.000034
SW-02	SGS	2022-11-02	CA15141-NOV22		< 0.000005	0.000041			< 0.00006	< 0.00006	0.0038	0.14	38	0.00006	0.00011	0.00003
SW-02	SGS	2023-04-19	CA15419-APR23		< 0.000005	0.00001			< 0.00006	0.00007	0.0071	0.0311	38	< 0.00002	0.00002	0.000035
SW-02	ALS	2023-05-14	WP2308112													
SW-02	ALS	2023-05-14	WP2308112	<0.00020	<0.000010	<0.000010	0.00011	0.00016	<0.00010	<0.00010	0.00612	0.0204		<0.00010	<0.00010	0.000035
SW-02	ALS	2023-05-14	WP2308112-002													
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001													
SW-03	Flett	2022-05-30	MTWATR061722JS2-001													
SW-03	SGS	2022-05-30	CA14964-JUN22		< 0.000005	0.000014			0.00007	< 0.00006			18	0.00005	0.00007	0.000966
SW-03	SGS	2022-07-26	CA15458-JUL22		0.000006	0.000026			< 0.00006	0.00013			18	0.00017	0.00015	0.000464
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005													
SW-03	Flett	2022-08-25	MTWATR092022JS1-005													
SW-03	SGS	2022-09-21	CA13964-SEP22		< 0.000005	< 0.000005			< 0.00006	0.00007	0.00348	0.0092	5	0.00032	0.00011	0.0011
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004													
SW-03	Flett	2022-10-12	MTWATR110722JS1-004													
SW-03	SGS	2022-10-12	CA15286-OCT22		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00036	0.003	3	0.00002	0.00002	0.00132
SW-03	SGS	2022-11-08	CA15232-NOV22		< 0.000005	< 0.000005			0.0001	< 0.0001	0.00083	0.01482	5	0.00004	< 0.00002	0.00141
SW-03	ALS	2023-05-14	WP2308112													
SW-03	ALS	2023-05-14	WP2308112	<0.00020	<0.000010	<0.000010	<0.00010	0.00018	<0.00010	<0.00010	0.00356	0.0252		<0.00010	<0.00010	0.00136
SW-03	ALS	2023-05-14	WP2308112-003													
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001													
SW-03	Flett	2023-05-19	MTWATR060823JS1-001													
SW-03	Flett	2023-06-05	MTWATR062123JS3-004													
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004													
SW-03	ALS	2023-06-05	WP2310937-003	<0.00020	<0.000010	0.00001	<0.00010	0.0001	<0.00010	<0.00010	0.00098	0.0126		<0.00010	<0.00010	0.00128
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007													
SW-03	Flett	2023-07-16	MTWATR080223JS1-009													
SW-03	ALS	2023-07-17	WP2316174-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00077	0.0096		<0.00010	<0.00010	0.00139
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003													
SW-03	Flett	2023-08-05	MTWATR082323JS1-004													
SW-03	ALS	2023-08-05	WP2318603-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00076	0.00672		<0.00010	<0.00010	0.00126
SW-03	ALS	2023-09-02	WP2322077-011	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00033	0.00584		<0.00010	<0.00010	0.00127
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008													
SW-03	Flett	2023-09-03	MTWATR091323JS2-008													
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-01	Flett	2024-09-02	MTWATR100124JS1-018									
SW-01	ALS	2024-10-02	WP2423347	0.000091	0.00066	0.00084			0.0023	<0.0030	0.00053	0.00048
SW-01	Flett	2024-10-02	TMWATR102524ZB1-002									
SW-01	Flett	2024-10-02	TMWATR102524ZB1-001									
SW-01	Flett	2024-10-02	MTWATR111324JS2-001									
SW-01	ALS	2024-11-02	WP2425500	0.000144	<0.00050	0.00135			0.0173	0.0222	0.00059	0.00061
SW-01	ALS	2024-11-02	WP2425500	0.000129	<0.00050	0.00143			0.0166	0.0232	0.00063	0.00063
SW-01	Flett	2024-11-02	MTWATR120524JS1-007									
SW-01	Flett	2024-11-02	TMWATR112524CH1-008									
SW-01	ALS	2024-12-01	WP2426900	0.000098	0.00082	0.00082			0.0093	0.0091	0.00034	0.00035
SW-01	Flett	2024-12-01	TMWATR012125CH1-013									
SW-01	Flett	2024-12-01	MTWATR121924JS1-013									
SW-02	SGS	2022-06-02	CA15185-JUN22	0.000032	0.00084	0.0011	0.00038	0.00042	0.008	0.017	< 0.002	< 0.002
SW-02	SGS	2022-06-02	CA15185-JUN22	0.000051	0.00081	0.00115	0.00037	0.00046	0.008	0.008	< 0.002	< 0.002
SW-02	SGS	2022-07-25	CA15458-JUL22	0.000102	0.0011	0.00115	0.00028	0.00031	0.004	0.003	< 0.002	< 0.002
SW-02	SGS	2022-08-08	CA13558-AUG22	0.000034	0.00097	0.00106	0.00031	0.00031	0.002	< 0.002	< 0.002	< 0.002
SW-02	SGS	2022-09-14	CA15266-SEP22	0.000057	0.00143	0.00183	0.00051	0.00056	0.004	0.004	< 0.002	< 0.002
SW-02	SGS	2022-10-12	CA15286-OCT22	0.000043	0.00065	0.00123	0.00033	0.00037	< 0.002	< 0.002	< 0.002	< 0.002
SW-02	SGS	2022-11-02	CA15141-NOV22	0.00011	0.00077	0.0063	0.00051	0.00113	0.002	0.009	< 0.002	0.002
SW-02	SGS	2023-04-19	CA15419-APR23	0.00005	0.00093	0.00195	0.00032	0.00043	0.003	0.005	< 0.002	< 0.002
SW-02	ALS	2023-05-14	WP2308112									
SW-02	ALS	2023-05-14	WP2308112	0.000039	0.001	0.00178			0.0017	<0.0030	0.0005	0.00061
SW-02	ALS	2023-05-14	WP2308112-002									
SW-03	Flett	2022-05-30	TMWATR061322ZB1-001									
SW-03	Flett	2022-05-30	MTWATR061722JS2-001									
SW-03	SGS	2022-05-30	CA14964-JUN22	0.00112	0.0016	0.00318	0.00042	0.00074	0.004	0.004	< 0.002	< 0.002
SW-03	SGS	2022-07-26	CA15458-JUL22	0.00102	0.00248	0.00527	0.00064	0.00109	< 0.002	0.007	< 0.002	0.002
SW-03	Flett	2022-08-25	TMWATR091622ZB1-005									
SW-03	Flett	2022-08-25	MTWATR092022JS1-005									
SW-03	SGS	2022-09-21	CA13964-SEP22	0.00126	0.00085	0.00119	0.00009	0.00015	< 0.002	0.004	< 0.002	< 0.002
SW-03	Flett	2022-10-12	TMWATR111022ZB3-004									
SW-03	Flett	2022-10-12	MTWATR110722JS1-004									
SW-03	SGS	2022-10-12	CA15286-OCT22	0.00132	0.00043	0.00057	0.00003	0.00006	< 0.002	< 0.002	< 0.002	< 0.002
SW-03	SGS	2022-11-08	CA15232-NOV22	0.00159	0.00056	0.00119	0.00006	0.0002	0.002	< 0.002	< 0.002	< 0.002
SW-03	ALS	2023-05-14	WP2308112									
SW-03	ALS	2023-05-14	WP2308112	0.0014	0.00113	0.00226			<0.0010	<0.0030	0.00059	0.00084
SW-03	ALS	2023-05-14	WP2308112-003									
SW-03	Flett	2023-05-19	TMWATR060923ZB1-001									
SW-03	Flett	2023-05-19	MTWATR060823JS1-001									
SW-03	Flett	2023-06-05	MTWATR062123JS3-004									
SW-03	Flett	2023-06-05	TMWATR062023ZB1-004									
SW-03	ALS	2023-06-05	WP2310937-003	0.00134	0.00148	0.00206			0.0025	<0.0030	0.00052	0.00054
SW-03	Flett	2023-07-16	TMWATR080423ZB1-007									
SW-03	Flett	2023-07-16	MTWATR080223JS1-009									
SW-03	ALS	2023-07-17	WP2316174-002	0.00131	0.00099	0.00152			<0.0010	<0.0030	<0.00030	0.0002
SW-03	Flett	2023-08-05	TMWATR082323ZB1-003									
SW-03	Flett	2023-08-05	MTWATR082323JS1-004									
SW-03	ALS	2023-08-05	WP2318603-002	0.00127	0.0011	0.00134			<0.0010	<0.0030	<0.00030	<0.00020
SW-03	ALS	2023-09-02	WP2322077-011	0.00117	0.00072	0.00113			<0.0010	<0.0030	<0.00030	<0.00020
SW-03	Flett	2023-09-03	TMWATR091823ZB1-008									
SW-03	Flett	2023-09-03	MTWATR091323JS2-008									
SW-03	Flett	2023-10-14	TMWATR110223ZB1-008									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008											
SW-03	ALS	2023-10-14	WP2326559-003	6.94	8.09	6	2.4	134	<1.0	<1.0	<1.0	134	0.0165	0.0618
SW-03	ALS	2023-11-04	WP2328799	7.76	8.16	0.1	3.5	136	<1.0	<1.0	<1.0	136	0.0081	0.0613
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003											
SW-03	Flett	2023-11-04	MTWATR112023JS1-003											
SW-03	ALS	2023-11-04	WP2328799-006											
SW-03	ALS	2023-12-09	WP2332240	7.72	8.14	0.8	2.1	131	<1.0	<1.0	<1.0	131	0.0066	0.0806
SW-03	Flett	2023-12-09	MTWATR122023JS1-007											
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007											
SW-03	Flett	2023-12-09	MTWATR122023JS1-006											
SW-03	ALS	2023-12-09	WP2332240-006											
SW-03	ALS	2024-02-08	WP2403349	6.91	7.71	0.6	3.6	124	<1.0	<1.0	<1.0	124	0.0065	0.548
SW-03	Flett	2024-02-08	TMWATR022824CH1-007											
SW-03	Flett	2024-02-08	MTWATR030824JS1-006											
SW-03	ALS	2024-02-08	WP2403349-001											
SW-03	ALS	2024-03-07	WP2405786	7.63	8.16	<0.10	2.8	125	<1.0	<1.0	<1.0	125	0.0039	3.69
SW-03	Flett	2024-03-07	TMWATR032024CH1-003											
SW-03	Flett	2024-03-07	MTWATR032124JS1-004											
SW-03	ALS	2024-03-07	WP2405786-001											
SW-03	ALS	2024-05-26	WP2413300	6.93	7.11	8.6	2.6	44.7	<1.0	<1.0	<1.0	44.7	0.55	2.35
SW-03	ALS	2024-05-26	WP2413300	6.93	7.09	8.6	2.8	43.3	<1.0	<1.0	<1.0	43.3	0.553	2.27
SW-03	Flett	2024-05-26	TMWATR061924CH1-017											
SW-03	Flett	2024-05-26	TMWATR061924CH1-016											
SW-03	Flett	2024-05-26	MTWATR061024JS1-016											
SW-03	ALS	2024-06-19	WP2415611	6.59	7.26	15.5	2.8	56.3	<1.0	<1.0	<1.0	56.3	0.584	1.11
SW-03	Flett	2024-06-19	TMWATR070224CH1											
SW-03	Flett	2024-06-19	TMWATR070224CH1											
SW-03	ALS	2024-07-10	WP2417255	7.01	8.1	12.9	2.3	138	<1.0	<1.0	<1.0	138	0.0448	0.0942
SW-03	Flett	2024-07-10	MTWATR072424JS2											
SW-03	Flett	2024-07-10	TMWATR072524CH2											
SW-03	ALS	2024-08-10	WP2419573	7.05	7.65	13.1	5.4	85.4	<1.0	<1.0	<1.0	85.4	0.45	0.973
SW-03	Flett	2024-08-10	TMWATR091224CH1-006											
SW-03	Flett	2024-08-10	MTWATR091824JS1-002											
SW-03	Flett	2024-08-10	TMWATR091224CH1-005											
SW-03	Flett	2024-08-10	MTWATR091824JS1-001											
SW-03	ALS	2024-09-03	WP2421465											
SW-03	ALS	2024-09-03	WP2421465	7.24	8.06	7.35	2.8	139	<1.0	<1.0	<1.0	139	0.0917	0.266
SW-03	Flett	2024-09-03	TMWATR092924CH1-011											
SW-03	Flett	2024-09-03	MTWATR100124JS1-013											
SW-03	ALS	2024-10-02	WP2423347	7.47	8.07	8.8	3.5	136	<1.0	<1.0	<1.0	136	0.109	0.374
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004											
SW-03	Flett	2024-10-02	MTWATR112724JS1-003											
SW-03	ALS	2024-11-02	WP2425500	7.69	8.12	1	<2.0	142	<1.0	<1.0	<1.0	142	0.0847	0.859
SW-03	Flett	2024-11-02	MTWATR120524JS1-009											
SW-03	Flett	2024-11-02	TMWATR112524CH1-010											
SW-03	ALS	2024-12-01	WP2426900	7.78	7.9	0	2	132	<1.0	<1.0	<1.0	132	0.0676	0.527
SW-03	Flett	2024-12-01	TMWATR012125CH1-008											
SW-03	Flett	2024-12-01	MTWATR121924JS1-009											
SW-04	SGS	2022-05-29	CA14964-JUN22	6.12	6.9	14.5	< 2					16		0.393
SW-04	SGS	2022-07-25	CA15458-JUL22	5.59	7.69	19.9	< 2					32		0.333
SW-04	SGS	2022-08-09	CA15226-AUG22	6.17	7.24	21.4	< 2					28	0.257	0.308
SW-04	SGS	2022-09-14	CA15266-SEP22	6.54	7.21	13.8	< 2					34	0.279	0.375

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008												
SW-03	ALS	2023-10-14	WP2326559-003		0.0058	<0.0010		<0.00010	<0.00010	0.00124	0.0013	0.0143	0.0144	<0.000020	<0.000020
SW-03	ALS	2023-11-04	WP2328799			<0.0010	<0.0050	<0.00010	<0.00010	0.00091	0.00115	0.0141	0.0156	<0.000020	<0.000020
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003												
SW-03	Flett	2023-11-04	MTWATR112023JS1-003												
SW-03	ALS	2023-11-04	WP2328799-006		<0.0050										
SW-03	ALS	2023-12-09	WP2332240			<0.0010	0.0169	<0.00010	<0.00010	0.00088	0.001	0.0142	0.0156	<0.000020	<0.000020
SW-03	Flett	2023-12-09	MTWATR122023JS1-007												
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007												
SW-03	Flett	2023-12-09	MTWATR122023JS1-006												
SW-03	ALS	2023-12-09	WP2332240-006		0.0169										
SW-03	ALS	2024-02-08	WP2403349			<0.0010	0.0755	<0.00010	<0.00010	0.00082	0.00099	0.0186	0.022	<0.000020	<0.000020
SW-03	Flett	2024-02-08	TMWATR022824CH1-007												
SW-03	Flett	2024-02-08	MTWATR030824JS1-006												
SW-03	ALS	2024-02-08	WP2403349-001		0.0755										
SW-03	ALS	2024-03-07	WP2405786			<0.0010	0.0352	<0.00010	<0.00010	0.00062	0.00221	0.0178	0.052	<0.000020	0.000113
SW-03	Flett	2024-03-07	TMWATR032024CH1-003												
SW-03	Flett	2024-03-07	MTWATR032124JS1-004												
SW-03	ALS	2024-03-07	WP2405786-001		0.0352										
SW-03	ALS	2024-05-26	WP2413300			<0.0010	0.0151	0.00018	0.0002	0.00423	0.00478	0.0204	0.0344	0.000045	0.000105
SW-03	ALS	2024-05-26	WP2413300			<0.0010	0.0212	0.00018	0.00019	0.00428	0.00453	0.0211	0.0325	0.000041	0.000112
SW-03	Flett	2024-05-26	TMWATR061924CH1-017												
SW-03	Flett	2024-05-26	TMWATR061924CH1-016												
SW-03	Flett	2024-05-26	MTWATR061024JS1-016												
SW-03	ALS	2024-06-19	WP2415611			<0.0010	0.0277	0.0002	0.00022	0.0073	0.00785	0.0237	0.0291	0.000058	0.000076
SW-03	Flett	2024-06-19	TMWATR070224CH1												
SW-03	Flett	2024-06-19	TMWATR070224CH1												
SW-03	ALS	2024-07-10	WP2417255			<0.0010	0.126	<0.00010	<0.00010	0.00461	0.00466	0.0164	0.0165	<0.000020	<0.000020
SW-03	Flett	2024-07-10	MTWATR072424JS2												
SW-03	Flett	2024-07-10	TMWATR072524CH2												
SW-03	ALS	2024-08-10	WP2419573			<0.0010	0.0338	0.00014	0.00013	0.00492	0.00481	0.0263	0.0297	0.000039	0.000054
SW-03	Flett	2024-08-10	TMWATR091224CH1-006												
SW-03	Flett	2024-08-10	MTWATR091824JS1-002												
SW-03	Flett	2024-08-10	TMWATR091224CH1-005												
SW-03	Flett	2024-08-10	MTWATR091824JS1-001												
SW-03	ALS	2024-09-03	WP2421465												
SW-03	ALS	2024-09-03	WP2421465			<0.0010	0.0273	<0.00010	<0.00010	0.00313	0.00295	0.0262	0.0268	<0.000020	<0.000020
SW-03	Flett	2024-09-03	TMWATR092924CH1-011												
SW-03	Flett	2024-09-03	MTWATR100124JS1-013												
SW-03	ALS	2024-10-02	WP2423347			<0.0010	0.0062	<0.00010	<0.00010	0.00252	0.00289	0.0854	0.0957	<0.000020	<0.000020
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004												
SW-03	Flett	2024-10-02	MTWATR112724JS1-003												
SW-03	ALS	2024-11-02	WP2425500			<0.0010	0.012	<0.00010	<0.00010	0.00143	0.00162	0.741	0.782	<0.000020	<0.000020
SW-03	Flett	2024-11-02	MTWATR120524JS1-009												
SW-03	Flett	2024-11-02	TMWATR112524CH1-010												
SW-03	ALS	2024-12-01	WP2426900			<0.0010	0.0329	<0.00010	0.0001	0.00127	0.00143	0.617	0.656	<0.000020	<0.000020
SW-03	Flett	2024-12-01	TMWATR012125CH1-008												
SW-03	Flett	2024-12-01	MTWATR121924JS1-009												
SW-04	SGS	2022-05-29	CA14964-JUN22	0.147			< 0.1	< 0.0009	< 0.0009	0.0015	0.0018	0.0077	0.00952	0.000012	0.000021
SW-04	SGS	2022-07-25	CA15458-JUL22	0.051			< 0.1	< 0.0009	< 0.0009	0.003	0.0028	0.0282	0.026	0.000021	0.000024
SW-04	SGS	2022-08-09	CA15226-AUG22	0.06			< 0.1	< 0.0009	< 0.0009	0.0031	0.003	0.0119	0.0123	0.000023	0.000026
SW-04	SGS	2022-09-14	CA15266-SEP22	0.039			0.2	< 0.0009	< 0.0009	0.0029	0.0026	0.012	0.0119	0.000031	0.000016

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008													
SW-03	ALS	2023-10-14	WP2326559-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	33.5	37	6.31	<0.000010	<0.000010		0.98
SW-03	ALS	2023-11-04	WP2328799	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	39	37.2	4.7	<0.000010	<0.000010		1.08
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003													
SW-03	Flett	2023-11-04	MTWATR112023JS1-003													
SW-03	ALS	2023-11-04	WP2328799-006													
SW-03	ALS	2023-12-09	WP2332240	<0.000050	<0.000050	0.011	<0.010	<0.0000050	<0.0000050	34.6	38	4.51	<0.000010	<0.000010		0.85
SW-03	Flett	2023-12-09	MTWATR122023JS1-007													
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007													
SW-03	Flett	2023-12-09	MTWATR122023JS1-006													
SW-03	ALS	2023-12-09	WP2332240-006													
SW-03	ALS	2024-02-08	WP2403349	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000054	34.4	33.4	4.6	<0.000010	0.000063		1
SW-03	Flett	2024-02-08	TMWATR022824CH1-007													
SW-03	Flett	2024-02-08	MTWATR030824JS1-006													
SW-03	ALS	2024-02-08	WP2403349-001													
SW-03	ALS	2024-03-07	WP2405786	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000439	31.9	37	5.03	<0.000010	0.000466		1
SW-03	Flett	2024-03-07	TMWATR032024CH1-003													
SW-03	Flett	2024-03-07	MTWATR032124JS1-004													
SW-03	ALS	2024-03-07	WP2405786-001													
SW-03	ALS	2024-05-26	WP2413300	<0.000050	<0.000050	0.011	0.014	0.0000364	0.0000421	15.7	18.5	63.3	<0.000010	0.000176		1.08
SW-03	ALS	2024-05-26	WP2413300	<0.000050	<0.000050	0.012	0.014	0.0000344	0.0000448	15.9	17.5	61.3	<0.000010	0.000162		1.09
SW-03	Flett	2024-05-26	TMWATR061924CH1-017													
SW-03	Flett	2024-05-26	TMWATR061924CH1-016													
SW-03	Flett	2024-05-26	MTWATR061024JS1-016													
SW-03	ALS	2024-06-19	WP2415611	<0.000050	<0.000050	0.014	0.016	0.0000425	0.0000666	20.7	20.7	64	<0.000010	0.00005		0.7
SW-03	Flett	2024-06-19	TMWATR070224CH1													
SW-03	Flett	2024-06-19	TMWATR070224CH1													
SW-03	ALS	2024-07-10	WP2417255	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	36	35.9	17.1	<0.000010	<0.000010		0.88
SW-03	Flett	2024-07-10	MTWATR072424JS2													
SW-03	Flett	2024-07-10	TMWATR072524CH2													
SW-03	ALS	2024-08-10	WP2419573	<0.000050	<0.000050	0.012	0.014	0.0000443	0.0000548	26.8	28.9	52.3	0.000011	0.000051		2.43
SW-03	Flett	2024-08-10	TMWATR091224CH1-006													
SW-03	Flett	2024-08-10	MTWATR091824JS1-002													
SW-03	Flett	2024-08-10	TMWATR091224CH1-005													
SW-03	Flett	2024-08-10	MTWATR091824JS1-001													
SW-03	ALS	2024-09-03	WP2421465													
SW-03	ALS	2024-09-03	WP2421465	<0.000050	<0.000050	<0.010	<0.010	0.000013	0.0000126	36.3	38.7	14.6	<0.000010	<0.000010		2.53
SW-03	Flett	2024-09-03	TMWATR092924CH1-011													
SW-03	Flett	2024-09-03	MTWATR100124JS1-013													
SW-03	ALS	2024-10-02	WP2423347	<0.000050	<0.000050	<0.010	<0.010	0.0000086	0.0000122	37	28.8	17.4	<0.000010	0.000027		1.86
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004													
SW-03	Flett	2024-10-02	MTWATR112724JS1-003													
SW-03	ALS	2024-11-02	WP2425500	<0.000050	<0.000050	0.011	<0.010	0.0000052	0.0000137	36.8	39.9	19.5	0.000012	0.000038		4.64
SW-03	Flett	2024-11-02	MTWATR120524JS1-009													
SW-03	Flett	2024-11-02	TMWATR112524CH1-010													
SW-03	ALS	2024-12-01	WP2426900	<0.000050	<0.000050	<0.010	<0.010	0.0000058	0.0000113	32	33.4	11.7	0.00001	0.000038		2.87
SW-03	Flett	2024-12-01	TMWATR012125CH1-008													
SW-03	Flett	2024-12-01	MTWATR121924JS1-009													
SW-04	SGS	2022-05-29	CA14964-JUN22	< 0.00001	< 0.00001	0.006	0.007	0.000012	0.000016	6.27	6.39	20			53	1
SW-04	SGS	2022-07-25	CA15458-JUL22	< 0.00001	< 0.00001	0.007	0.007	0.000011	0.000006	8.31	8.15	18			50	< 1
SW-04	SGS	2022-08-09	CA15226-AUG22	< 0.00001	< 0.00001	0.006	0.007	0.000008	0.000009	9.24	9.66	19			50	< 1
SW-04	SGS	2022-09-14	CA15266-SEP22	< 0.00001	< 0.00001	0.006	0.009	0.00001	0.000005	10.6	10.3	21			57	< 1

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Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008													
SW-03	ALS	2023-10-14	WP2326559-003	0.00016	0.00023	<0.00010	<0.00010	241	0.00045	<0.00050	<0.0010	<0.0010		<0.0010		
SW-03	ALS	2023-11-04	WP2328799	0.00017	0.00023	<0.00010	<0.00010	253	0.00026	<0.00050	<0.0010	<0.0010		<0.0010		
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003													
SW-03	Flett	2023-11-04	MTWATR112023JS1-003													
SW-03	ALS	2023-11-04	WP2328799-006													
SW-03	ALS	2023-12-09	WP2332240	0.00012	0.00028	<0.00010	<0.00010	245	0.0003	<0.00050	<0.0010	<0.0010		<0.0010		
SW-03	Flett	2023-12-09	MTWATR122023JS1-007													
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007													
SW-03	Flett	2023-12-09	MTWATR122023JS1-006													
SW-03	ALS	2023-12-09	WP2332240-006													
SW-03	ALS	2024-02-08	WP2403349	<0.00010	0.0011	<0.00010	0.00036	235	0.00042	0.00091	<0.0010	<0.0010		<0.0010		
SW-03	Flett	2024-02-08	TMWATR022824CH1-007													
SW-03	Flett	2024-02-08	MTWATR030824JS1-006													
SW-03	ALS	2024-02-08	WP2403349-001													
SW-03	ALS	2024-03-07	WP2405786	<0.00010	0.00741	<0.00010	0.0024	240	0.00024	0.00442	<0.0010	<0.0010		<0.0010		
SW-03	Flett	2024-03-07	TMWATR032024CH1-003													
SW-03	Flett	2024-03-07	MTWATR032124JS1-004													
SW-03	ALS	2024-03-07	WP2405786-001													
SW-03	ALS	2024-05-26	WP2413300	0.00157	0.00411	0.00051	0.00106	105	0.00317	0.00437	0.0026	0.0028		0.0029		
SW-03	ALS	2024-05-26	WP2413300	0.0015	0.00395	0.00057	0.00099	103	0.00316	0.00434	0.0025	0.003		0.0025		
SW-03	Flett	2024-05-26	TMWATR061924CH1-017													
SW-03	Flett	2024-05-26	TMWATR061924CH1-016													
SW-03	Flett	2024-05-26	MTWATR061024JS1-016													
SW-03	ALS	2024-06-19	WP2415611	0.00189	0.00288	0.00072	0.00104	124	0.00305	0.00386	0.0023	<0.0500		0.0023		
SW-03	Flett	2024-06-19	TMWATR070224CH1													
SW-03	Flett	2024-06-19	TMWATR070224CH1													
SW-03	ALS	2024-07-10	WP2417255	0.00036	0.00045	0.00033	0.00037	262	0.00071	0.00067	<0.0010	0.001		<0.0010		
SW-03	Flett	2024-07-10	MTWATR072424JS2													
SW-03	Flett	2024-07-10	TMWATR072524CH2													
SW-03	ALS	2024-08-10	WP2419573	0.00133	0.00224	0.00039	0.00056	175	0.00311	0.00359	0.0019	0.0018		0.0015		
SW-03	Flett	2024-08-10	TMWATR091224CH1-006													
SW-03	Flett	2024-08-10	MTWATR091824JS1-002													
SW-03	Flett	2024-08-10	TMWATR091224CH1-005													
SW-03	Flett	2024-08-10	MTWATR091824JS1-001													
SW-03	ALS	2024-09-03	WP2421465	0.00048	0.00082											
SW-03	ALS	2024-09-03	WP2421465	<0.00050	0.00082	0.00023	0.00035	258	0.00107	0.00157	<0.0010	<0.0010		<0.0010		
SW-03	Flett	2024-09-03	TMWATR092924CH1-011													
SW-03	Flett	2024-09-03	MTWATR100124JS1-013													
SW-03	ALS	2024-10-02	WP2423347	0.00045	0.00103	0.00031	0.00048	258	0.00122	0.00225	<0.0010	<0.0010		<0.0010		
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004													
SW-03	Flett	2024-10-02	MTWATR112724JS1-003													
SW-03	ALS	2024-11-02	WP2425500	0.00038	0.00219	0.00033	0.00082	260	0.00257	0.00571	<0.0010	<0.0100		<0.0010		
SW-03	Flett	2024-11-02	MTWATR120524JS1-009													
SW-03	Flett	2024-11-02	TMWATR112524CH1-010													
SW-03	ALS	2024-12-01	WP2426900	0.0003	0.00103	0.00026	0.00063	255	0.0022	0.00348	<0.0010	<0.0010		<0.0010		
SW-03	Flett	2024-12-01	TMWATR012125CH1-008													
SW-03	Flett	2024-12-01	MTWATR121924JS1-009													
SW-04	SGS	2022-05-29	CA14964-JUN22	0.00027	0.00073	0.000081	0.000175	42	0.0012	0.0012			< 0.01			< 0.06
SW-04	SGS	2022-07-25	CA15458-JUL22	0.00069	0.00072	0.000167	0.000193	61	0.0013	0.0015			< 0.01			< 0.06
SW-04	SGS	2022-08-09	CA15226-AUG22	0.00086	0.00109	0.000185	0.000255	61	0.0013	0.0016			< 0.01			< 0.06
SW-04	SGS	2022-09-14	CA15266-SEP22	0.00091	0.00112	0.000208	0.000252	66	0.0011	0.0012			< 0.01			< 0.06

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008												
SW-03	ALS	2023-10-14	WP2326559-003	118	126	0.06	0.112	<0.000050	<0.000050	0.003	0.0055	8.3	8.06	0.0114	0.0147
SW-03	ALS	2023-11-04	WP2328799	130	128	0.037	0.11	<0.000050	<0.000050	0.0052	0.0057	7.91	8.65	0.0203	0.0235
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003												
SW-03	Flett	2023-11-04	MTWATR112023JS1-003												
SW-03	ALS	2023-11-04	WP2328799-006												
SW-03	ALS	2023-12-09	WP2332240	117	129	0.037	0.155	<0.000050	<0.000050	0.0059	0.0065	7.39	8.28	0.0182	0.0272
SW-03	Flett	2023-12-09	MTWATR122023JS1-007												
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007												
SW-03	Flett	2023-12-09	MTWATR122023JS1-006												
SW-03	ALS	2023-12-09	WP2332240-006												
SW-03	ALS	2024-02-08	WP2403349	119	114	0.045	0.695	<0.000050	0.000232	0.0053	0.0062	8.15	7.56	0.0629	0.0923
SW-03	Flett	2024-02-08	TMWATR022824CH1-007												
SW-03	Flett	2024-02-08	MTWATR030824JS1-006												
SW-03	ALS	2024-02-08	WP2403349-001												
SW-03	ALS	2024-03-07	WP2405786	109	129	<0.010	4.48	<0.000050	0.00179	0.005	0.0096	7.09	8.94	0.0973	0.378
SW-03	Flett	2024-03-07	TMWATR032024CH1-003												
SW-03	Flett	2024-03-07	MTWATR032124JS1-004												
SW-03	ALS	2024-03-07	WP2405786-001												
SW-03	ALS	2024-05-26	WP2413300	57.5	66.4	0.574	2.07	0.000095	0.000742	0.0027	0.0057	4.44	4.91	0.0787	0.101
SW-03	ALS	2024-05-26	WP2413300	57.6	62.4	0.585	2	0.000115	0.000718	0.0028	0.0056	4.35	4.53	0.0816	0.0939
SW-03	Flett	2024-05-26	TMWATR061924CH1-017												
SW-03	Flett	2024-05-26	TMWATR061924CH1-016												
SW-03	Flett	2024-05-26	MTWATR061024JS1-016												
SW-03	ALS	2024-06-19	WP2415611	73.3	76.2	0.956	1.69	0.000161	0.00044	0.0046	0.0045	5.24	5.96	0.134	0.168
SW-03	Flett	2024-06-19	TMWATR070224CH1												
SW-03	Flett	2024-06-19	TMWATR070224CH1												
SW-03	ALS	2024-07-10	WP2417255	128	126	0.344	0.43	<0.000050	<0.000050	0.0051	0.006	9.16	8.81	0.2	0.213
SW-03	Flett	2024-07-10	MTWATR072424JS2												
SW-03	Flett	2024-07-10	TMWATR072524CH2												
SW-03	ALS	2024-08-10	WP2419573	93.5	101	0.717	1.2	0.000248	0.000425	0.0036	0.0056	6.46	7.06	0.0553	0.0588
SW-03	Flett	2024-08-10	TMWATR091224CH1-006												
SW-03	Flett	2024-08-10	MTWATR091824JS1-002												
SW-03	Flett	2024-08-10	TMWATR091224CH1-005												
SW-03	Flett	2024-08-10	MTWATR091824JS1-001												
SW-03	ALS	2024-09-03	WP2421465												
SW-03	ALS	2024-09-03	WP2421465	125	132	0.523	0.772	<0.000050	0.000078	0.0052	0.0067	8.28	8.54	0.0759	0.0814
SW-03	Flett	2024-09-03	TMWATR092924CH1-011												
SW-03	Flett	2024-09-03	MTWATR100124JS1-013												
SW-03	ALS	2024-10-02	WP2423347	127	107	0.544	0.949	<0.000050	0.000062	0.0051	0.0065	8.36	8.6	0.113	0.12
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004												
SW-03	Flett	2024-10-02	MTWATR112724JS1-003												
SW-03	ALS	2024-11-02	WP2425500	127	137	0.602	1.96	0.000072	0.000146	0.0064	0.0068	8.64	9.05	0.2	0.238
SW-03	Flett	2024-11-02	MTWATR120524JS1-009												
SW-03	Flett	2024-11-02	TMWATR112524CH1-010												
SW-03	ALS	2024-12-01	WP2426900	110	115	0.301	1.12	<0.000050	0.0002	0.0052	0.0033	7.32	7.63	0.167	0.21
SW-03	Flett	2024-12-01	TMWATR012125CH1-008												
SW-03	Flett	2024-12-01	MTWATR121924JS1-009												
SW-04	SGS	2022-05-29	CA14964-JUN22	22.8	23.2	0.218	0.513	0.00019	0.00014	0.0012	0.0014	1.74	1.77	0.0114	0.0243
SW-04	SGS	2022-07-25	CA15458-JUL22	31.6	30.8	0.624	0.703	0.00016	0.00018	0.002	0.002	2.63	2.55	0.0335	0.0322
SW-04	SGS	2022-08-09	CA15226-AUG22	34.6	35.7	0.649	0.718	0.00017	0.00033			2.81	2.81	0.0315	0.0323
SW-04	SGS	2022-09-14	CA15266-SEP22	38.2	37.3	0.676	0.8	0.00021	0.00024			2.87	2.8	0.0343	0.0345

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008		0.063										
SW-03	ALS	2023-10-14	WP2326559-003	<0.0000050		<0.0000050		0.000675	0.000638	<0.00050	0.00052	0.0185	0.0185	<0.0010	
SW-03	ALS	2023-11-04	WP2328799	<0.0000050		<0.0000050		0.000677	0.000688	<0.00050	<0.00050	0.0992	0.0992	<0.0010	
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003				0.47								
SW-03	Flett	2023-11-04	MTWATR112023JS1-003		0.035										
SW-03	ALS	2023-11-04	WP2328799-006												
SW-03	ALS	2023-12-09	WP2332240	<0.0000050		<0.0000050		0.000736	0.00072	<0.00050	<0.00050	0.15	0.151	0.0014	
SW-03	Flett	2023-12-09	MTWATR122023JS1-007		0.032										
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007				0.41								
SW-03	Flett	2023-12-09	MTWATR122023JS1-006		0.032										
SW-03	ALS	2023-12-09	WP2332240-006												
SW-03	ALS	2024-02-08	WP2403349	<0.0000050		<0.0000050		0.000869	0.000744	<0.00050	0.00092	0.235	0.238	0.0027	
SW-03	Flett	2024-02-08	TMWATR022824CH1-007				1.37								
SW-03	Flett	2024-02-08	MTWATR030824JS1-006		0.052										
SW-03	ALS	2024-02-08	WP2403349-001												
SW-03	ALS	2024-03-07	WP2405786	<0.0000050		<0.0000050		0.000783	0.000779	<0.00050	0.00544	0.185	0.188	0.0035	
SW-03	Flett	2024-03-07	TMWATR032024CH1-003				3.52								
SW-03	Flett	2024-03-07	MTWATR032124JS1-004		0.083										
SW-03	ALS	2024-03-07	WP2405786-001												
SW-03	ALS	2024-05-26	WP2413300	0.0000117		0.0000158		0.000351	0.000414	0.00341	0.00459	0.661	0.662	0.0015	
SW-03	ALS	2024-05-26	WP2413300	0.0000133		0.0000182		0.00035	0.000348	0.0034	0.0048	0.635	0.636	0.0011	
SW-03	Flett	2024-05-26	TMWATR061924CH1-017				17.9								
SW-03	Flett	2024-05-26	TMWATR061924CH1-016				18.4								
SW-03	Flett	2024-05-26	MTWATR061024JS1-016		0.341										
SW-03	ALS	2024-06-19	WP2415611	0.0000111		0.000014		0.000516	0.000533	0.00426	0.00512	<0.0050	<0.0051	<0.0010	
SW-03	Flett	2024-06-19	TMWATR070224CH1				14.3								
SW-03	Flett	2024-06-19	TMWATR070224CH1				14								
SW-03	ALS	2024-07-10	WP2417255	<0.0000050		<0.0000050		0.000768	0.000712	0.00133	0.00112	0.0798	0.0897	0.0099	
SW-03	Flett	2024-07-10	MTWATR072424JS2		0.341										
SW-03	Flett	2024-07-10	TMWATR072524CH2				2.53								
SW-03	ALS	2024-08-10	WP2419573	0.0000056		0.0000093		0.000615	0.000527	0.00308	0.00382	0.0343	0.0343	<0.0010	
SW-03	Flett	2024-08-10	TMWATR091224CH1-006				13.6								
SW-03	Flett	2024-08-10	MTWATR091824JS1-002		0.392										
SW-03	Flett	2024-08-10	TMWATR091224CH1-005				13.9								
SW-03	Flett	2024-08-10	MTWATR091824JS1-001		0.396										
SW-03	ALS	2024-09-03	WP2421465												
SW-03	ALS	2024-09-03	WP2421465	<0.0000050		<0.0000050		0.000748	0.000748	0.00134	0.00155	0.0512	0.0531	0.0019	
SW-03	Flett	2024-09-03	TMWATR092924CH1-011				1.79								
SW-03	Flett	2024-09-03	MTWATR100124JS1-013		0.209										
SW-03	ALS	2024-10-02	WP2423347	<0.0000050		<0.0000050		0.000759	0.000786	0.00128	0.00164	0.007	0.007	<0.0010	<0.030
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004				1.79								
SW-03	Flett	2024-10-02	MTWATR112724JS1-003		0.194										
SW-03	ALS	2024-11-02	WP2425500	<0.0000050		<0.0000050		0.000837	0.000753	0.00126	0.0022	<0.0050	<0.0051	<0.0010	0.036
SW-03	Flett	2024-11-02	MTWATR120524JS1-009		0.125										
SW-03	Flett	2024-11-02	TMWATR112524CH1-010				1.07								
SW-03	ALS	2024-12-01	WP2426900	<0.0000050		<0.0000050		0.000765	0.000668	0.00082	0.00123	0.101	0.102	0.0015	<0.030
SW-03	Flett	2024-12-01	TMWATR012125CH1-008				1.33								
SW-03	Flett	2024-12-01	MTWATR121924JS1-009		0.067										
SW-04	SGS	2022-05-29	CA14964-JUN22	< 0.00001		0.00001		0.00012	0.00016	0.0006	0.0008	< 0.06	< 0.06	< 0.03	
SW-04	SGS	2022-07-25	CA15458-JUL22	< 0.00001		0.00007		0.00018	0.00024	0.0007	0.0008	< 0.06	< 0.06	< 0.03	
SW-04	SGS	2022-08-09	CA15226-AUG22			0.00003		0.00022	0.00028	0.001	0.0011	< 0.06	< 0.06	< 0.03	
SW-04	SGS	2022-09-14	CA15266-SEP22			< 0.00001		0.00021	0.00024	0.0009	0.0011	0.08	0.08	< 0.03	

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Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008												
SW-03	ALS	2023-10-14	WP2326559-003	<0.030		0.0172	<0.030	2.41	2.23		0.00076	0.00083	0.000117	0.000105	5.8
SW-03	ALS	2023-11-04	WP2328799	<0.030	<0.030	0.0121	<0.050	1.93	2.16		0.00057	0.00072	0.00014	0.000142	6.39
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003												
SW-03	Flett	2023-11-04	MTWATR112023JS1-003												
SW-03	ALS	2023-11-04	WP2328799-006				<0.030								
SW-03	ALS	2023-12-09	WP2332240	<0.030	<0.030	0.0167	<0.050	1.85	2.08		0.00056	0.00079	0.000136	0.000125	6.57
SW-03	Flett	2023-12-09	MTWATR122023JS1-007												
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007												
SW-03	Flett	2023-12-09	MTWATR122023JS1-006												
SW-03	ALS	2023-12-09	WP2332240-006				<0.030								
SW-03	ALS	2024-02-08	WP2403349	<0.030	0.049	0.0408	<0.050	2.18	2.08		0.00069	0.00189	0.000187	0.000151	6.06
SW-03	Flett	2024-02-08	TMWATR022824CH1-007												
SW-03	Flett	2024-02-08	MTWATR030824JS1-006												
SW-03	ALS	2024-02-08	WP2403349-001				0.049								
SW-03	ALS	2024-03-07	WP2405786	<0.030	0.197	0.12	0.197	1.83	2.66		0.00055	0.00867	0.000202	0.00021	6.02
SW-03	Flett	2024-03-07	TMWATR032024CH1-003												
SW-03	Flett	2024-03-07	MTWATR032124JS1-004												
SW-03	ALS	2024-03-07	WP2405786-001												
SW-03	ALS	2024-05-26	WP2413300	0.042	0.129	0.128	0.129	4.06	4.69		0.00221	0.00567	0.000309	0.000249	5.17
SW-03	ALS	2024-05-26	WP2413300	0.049	0.108	0.123	0.108	4.12	4.75		0.00218	0.00537	0.00027	0.00021	5.09
SW-03	Flett	2024-05-26	TMWATR061924CH1-017												
SW-03	Flett	2024-05-26	TMWATR061924CH1-016												
SW-03	Flett	2024-05-26	MTWATR061024JS1-016												
SW-03	ALS	2024-06-19	WP2415611	0.077	0.116	0.141	0.116	4.35	4.71		0.00287	0.00387	0.000279	0.000389	6.41
SW-03	Flett	2024-06-19	TMWATR070224CH1												
SW-03	Flett	2024-06-19	TMWATR070224CH1												
SW-03	ALS	2024-07-10	WP2417255	0.042	0.048	0.0566	<0.050	2.7	2.65		0.00151	0.00156	0.000244	0.000154	6.49
SW-03	Flett	2024-07-10	MTWATR072424JS2												
SW-03	Flett	2024-07-10	TMWATR072524CH2												
SW-03	ALS	2024-08-10	WP2419573	0.1	0.094	0.125	0.094	4.17	4.3		0.00201	0.00286	0.000301	0.000277	6.95
SW-03	Flett	2024-08-10	TMWATR091224CH1-006												
SW-03	Flett	2024-08-10	MTWATR091824JS1-002												
SW-03	Flett	2024-08-10	TMWATR091224CH1-005												
SW-03	Flett	2024-08-10	MTWATR091824JS1-001												
SW-03	ALS	2024-09-03	WP2421465	0.038											
SW-03	ALS	2024-09-03	WP2421465	<0.050	0.052	0.0538	0.052	2.84	2.71		0.00126	0.00126	0.000222	0.000088	6.34
SW-03	Flett	2024-09-03	TMWATR092924CH1-011												
SW-03	Flett	2024-09-03	MTWATR100124JS1-013												
SW-03	ALS	2024-10-02	WP2423347		0.042	0.0406		2.63	2.71		0.00134	0.00159	0.000094	<0.000050	6.53
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004												
SW-03	Flett	2024-10-02	MTWATR112724JS1-003												
SW-03	ALS	2024-11-02	WP2425500		0.048	0.0547		2.46	2.38		0.00145	0.00163	0.000078	0.000108	6.13
SW-03	Flett	2024-11-02	MTWATR120524JS1-009												
SW-03	Flett	2024-11-02	TMWATR112524CH1-010												
SW-03	ALS	2024-12-01	WP2426900		0.035	0.028		2.12	2.23		0.00121	0.00185	0.000076	0.000122	5.43
SW-03	Flett	2024-12-01	TMWATR012125CH1-008												
SW-03	Flett	2024-12-01	MTWATR121924JS1-009												
SW-04	SGS	2022-05-29	CA14964-JUN22	0.006			0.027	1	1.05				0.00009	0.00007	2.36
SW-04	SGS	2022-07-25	CA15458-JUL22	0.015			0.041	0.939	0.932				0.00013	0.0001	1.16
SW-04	SGS	2022-08-09	CA15226-AUG22	0.003			0.04	1.03	1.07				0.00014	0.00016	
SW-04	SGS	2022-09-14	CA15266-SEP22	0.021			0.029	0.957	0.933				0.00023	0.0002	1.49

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008													
SW-03	ALS	2023-10-14	WP2326559-003	5.77	<0.000010	<0.000010	3.07	2.74	138	3.8	0.0582	0.0526	1.48	0.82	3.32	<0.00020
SW-03	ALS	2023-11-04	WP2328799	6.88	<0.000010	<0.000010	2.85	2.8	140	1.1	0.0562	0.0568	1.34	1.15	3.57	<0.00020
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003													
SW-03	Flett	2023-11-04	MTWATR112023JS1-003													
SW-03	ALS	2023-11-04	WP2328799-006													
SW-03	ALS	2023-12-09	WP2332240	7.18	<0.000010	<0.000010	2.57	2.93	141	3	0.051	0.0526	1.67	1.52	3.52	<0.00020
SW-03	Flett	2023-12-09	MTWATR122023JS1-007													
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007													
SW-03	Flett	2023-12-09	MTWATR122023JS1-006													
SW-03	ALS	2023-12-09	WP2332240-006													
SW-03	ALS	2024-02-08	WP2403349	6.72	<0.000010	<0.000010	2.66	2.65	140	20.8	0.0491	0.0477	1.55	1.31	3.51	<0.00020
SW-03	Flett	2024-02-08	TMWATR022824CH1-007													
SW-03	Flett	2024-02-08	MTWATR030824JS1-006													
SW-03	ALS	2024-02-08	WP2403349-001													
SW-03	ALS	2024-03-07	WP2405786	12.6	<0.000010	0.000016	2.32	2.96	134	112	0.0441	0.0546	1.22	1.25	3.78	<0.00020
SW-03	Flett	2024-03-07	TMWATR032024CH1-003													
SW-03	Flett	2024-03-07	MTWATR032124JS1-004													
SW-03	ALS	2024-03-07	WP2405786-001													
SW-03	ALS	2024-05-26	WP2413300	9.42	<0.000010	0.000019	1.77	2.27	194	23	0.0327	0.0376	0.62	0.94	1.07	<0.00020
SW-03	ALS	2024-05-26	WP2413300	8.99	<0.000010	0.000018	1.78	1.89	194	43.5	0.0331	0.0343	0.59	0.75	1.03	<0.00020
SW-03	Flett	2024-05-26	TMWATR061924CH1-017													
SW-03	Flett	2024-05-26	TMWATR061924CH1-016													
SW-03	Flett	2024-05-26	MTWATR061024JS1-016													
SW-03	ALS	2024-06-19	WP2415611	7.81	<0.000010	0.000011	2.2	2.34	218	14.4	0.0392	0.0427	<0.50	0.68	0.66	<0.00020
SW-03	Flett	2024-06-19	TMWATR070224CH1													
SW-03	Flett	2024-06-19	TMWATR070224CH1													
SW-03	ALS	2024-07-10	WP2417255	6.66	<0.000010	<0.000010	2.91	2.96	163	3.2	0.0588	0.0551	1.19	0.93	2.24	<0.00020
SW-03	Flett	2024-07-10	MTWATR072424JS2													
SW-03	Flett	2024-07-10	TMWATR072524CH2													
SW-03	ALS	2024-08-10	WP2419573	7.97	0.000037	0.000031	2.51	2.57	200	9.7	0.0529	0.054	0.82	0.63	1.16	<0.00020
SW-03	Flett	2024-08-10	TMWATR091224CH1-006													
SW-03	Flett	2024-08-10	MTWATR091824JS1-002													
SW-03	Flett	2024-08-10	TMWATR091224CH1-005													
SW-03	Flett	2024-08-10	MTWATR091824JS1-001													
SW-03	ALS	2024-09-03	WP2421465													
SW-03	ALS	2024-09-03	WP2421465	6.96	0.00001	0.000053	4.02	4.34	188	2.5	0.0574	0.0588	1.33	1.22	2.64	<0.00020
SW-03	Flett	2024-09-03	TMWATR092924CH1-011													
SW-03	Flett	2024-09-03	MTWATR100124JS1-013													
SW-03	ALS	2024-10-02	WP2423347	7.27	0.000023	0.000148	4.25	4.22	194	2.2	0.0615	0.0614	1.15	1.06	2.47	<0.00020
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004													
SW-03	Flett	2024-10-02	MTWATR112724JS1-003													
SW-03	ALS	2024-11-02	WP2425500	7.42	<0.000010	0.00037	6.16	5.89	176	19.4	0.0755	0.0794	1.25	1.41	3.07	<0.00020
SW-03	Flett	2024-11-02	MTWATR120524JS1-009													
SW-03	Flett	2024-11-02	TMWATR112524CH1-010													
SW-03	ALS	2024-12-01	WP2426900	6.62	<0.000010	0.000154	4.11	4.24	179	18.2	0.0532	0.0608	0.93	1.21	3.07	<0.00020
SW-03	Flett	2024-12-01	TMWATR012125CH1-008													
SW-03	Flett	2024-12-01	MTWATR121924JS1-009													
SW-04	SGS	2022-05-29	CA14964-JUN22	2.92	< 0.00005	< 0.00005	0.84	0.83	74	9	0.0156	0.0165		< 1	< 2	
SW-04	SGS	2022-07-25	CA15458-JUL22	1.47	< 0.00005	0.0001	1.26	1.26	71	8	0.0225	0.0222		2	< 2	
SW-04	SGS	2022-08-09	CA15226-AUG22		< 0.00005	< 0.00005	1.33	1.44	100	12	0.0229	0.024			< 2	
SW-04	SGS	2022-09-14	CA15266-SEP22	1.54	< 0.00005	< 0.00005	1.28	1.28	57	10	0.0263	0.0261	< 1	1	< 2	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008													
SW-03	ALS	2023-10-14	WP2326559-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00068	0.0025		<0.00010	<0.00010	0.00116
SW-03	ALS	2023-11-04	WP2328799	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00274		<0.00010	<0.00010	0.00138
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003													
SW-03	Flett	2023-11-04	MTWATR112023JS1-003													
SW-03	ALS	2023-11-04	WP2328799-006													
SW-03	ALS	2023-12-09	WP2332240	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00031	0.00393		<0.00010	<0.00010	0.00155
SW-03	Flett	2023-12-09	MTWATR122023JS1-007													
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007													
SW-03	Flett	2023-12-09	MTWATR122023JS1-006													
SW-03	ALS	2023-12-09	WP2332240-006													
SW-03	ALS	2024-02-08	WP2403349	<0.00020	<0.000010	<0.000010	<0.00010	0.00012	<0.00010	<0.00010	0.00038	0.0301		<0.00010	<0.00010	0.00176
SW-03	Flett	2024-02-08	TMWATR022824CH1-007													
SW-03	Flett	2024-02-08	MTWATR030824JS1-006													
SW-03	ALS	2024-02-08	WP2403349-001													
SW-03	ALS	2024-03-07	WP2405786	<0.00020	<0.000010	0.000057	<0.00010	0.00055	<0.00010	0.00011	<0.00030	0.197		<0.00010	<0.00010	0.0019
SW-03	Flett	2024-03-07	TMWATR032024CH1-003													
SW-03	Flett	2024-03-07	MTWATR032124JS1-004													
SW-03	ALS	2024-03-07	WP2405786-001													
SW-03	ALS	2024-05-26	WP2413300	<0.00020	<0.000010	0.000023	0.00044	0.00049	<0.00010	<0.00010	0.00926	0.0937		<0.00010	<0.00010	0.000329
SW-03	ALS	2024-05-26	WP2413300	<0.00020	<0.000010	0.000022	0.00043	0.0005	<0.00010	<0.00010	0.00984	0.0854		<0.00010	<0.00010	0.000315
SW-03	Flett	2024-05-26	TMWATR061924CH1-017													
SW-03	Flett	2024-05-26	TMWATR061924CH1-016													
SW-03	Flett	2024-05-26	MTWATR061024JS1-016													
SW-03	ALS	2024-06-19	WP2415611	<0.00020	<0.000010	0.000011	0.00055	0.00048	<0.00010	0.0001	0.0136	0.0361		0.00011	0.00011	0.000424
SW-03	Flett	2024-06-19	TMWATR070224CH1													
SW-03	Flett	2024-06-19	TMWATR070224CH1													
SW-03	ALS	2024-07-10	WP2417255	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00203	0.00475		<0.00010	<0.00010	0.00134
SW-03	Flett	2024-07-10	MTWATR072424JS2													
SW-03	Flett	2024-07-10	TMWATR072524CH2													
SW-03	ALS	2024-08-10	WP2419573	<0.00020	<0.000010	<0.000010	0.00038	0.00025	0.0001	<0.00010	0.0189	0.0294		0.00013	0.00014	0.000708
SW-03	Flett	2024-08-10	TMWATR091224CH1-006													
SW-03	Flett	2024-08-10	MTWATR091824JS1-002													
SW-03	Flett	2024-08-10	TMWATR091224CH1-005													
SW-03	Flett	2024-08-10	MTWATR091824JS1-001													
SW-03	ALS	2024-09-03	WP2421465													
SW-03	ALS	2024-09-03	WP2421465	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00416	0.0104		0.00136	0.0014	0.00107
SW-03	Flett	2024-09-03	TMWATR092924CH1-011													
SW-03	Flett	2024-09-03	MTWATR100124JS1-013													
SW-03	ALS	2024-10-02	WP2423347	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.006	0.0167		0.00213	0.00232	0.0011
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004													
SW-03	Flett	2024-10-02	MTWATR112724JS1-003													
SW-03	ALS	2024-11-02	WP2425500	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	0.00013	0.00311	0.0238		0.00492	0.0056	0.00118
SW-03	Flett	2024-11-02	MTWATR120524JS1-009													
SW-03	Flett	2024-11-02	TMWATR112524CH1-010													
SW-03	ALS	2024-12-01	WP2426900	0.00029	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	0.00014	0.00275	0.0207		0.00233	0.00304	0.00118
SW-03	Flett	2024-12-01	TMWATR012125CH1-008													
SW-03	Flett	2024-12-01	MTWATR121924JS1-009													
SW-04	SGS	2022-05-29	CA14964-JUN22		< 0.000005	0.000005			< 0.00006	< 0.00006			20	< 0.00002	< 0.00002	0.000106
SW-04	SGS	2022-07-25	CA15458-JUL22		0.000005	0.000009			0.00007	0.00014			17	0.0023	0.0025	0.0002
SW-04	SGS	2022-08-09	CA15226-AUG22		< 0.000005	0.000005			< 0.00006	0.00021	0.0125	0.0126	19	0.00022	0.00024	0.000227
SW-04	SGS	2022-09-14	CA15266-SEP22		0.000006	0.000008			< 0.00006	< 0.00006	0.0134	0.016	20	0.00008	0.0001	0.000252

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-03	Flett	2023-10-14	MTWATR111923JS1-008									
SW-03	ALS	2023-10-14	WP2326559-003	0.00114	0.00056	0.00076			<0.0010	<0.0030	<0.00030	<0.00020
SW-03	ALS	2023-11-04	WP2328799	0.00138	<0.00050	0.00072			<0.0010	<0.0030	<0.00030	<0.00020
SW-03	Flett	2023-11-04	TMWATR110923ZB2-003									
SW-03	Flett	2023-11-04	MTWATR112023JS1-003									
SW-03	ALS	2023-11-04	WP2328799-006									
SW-03	ALS	2023-12-09	WP2332240	0.00167	<0.00050	0.00089			<0.0010	<0.0030	<0.00030	<0.00020
SW-03	Flett	2023-12-09	MTWATR122023JS1-007									
SW-03	Flett	2023-12-09	TMWATR121923ZB1-007									
SW-03	Flett	2023-12-09	MTWATR122023JS1-006									
SW-03	ALS	2023-12-09	WP2332240-006									
SW-03	ALS	2024-02-08	WP2403349	0.00187	0.00078	0.00205			<0.0010	<0.0030	<0.00030	0.00032
SW-03	Flett	2024-02-08	TMWATR022824CH1-007									
SW-03	Flett	2024-02-08	MTWATR030824JS1-006									
SW-03	ALS	2024-02-08	WP2403349-001									
SW-03	ALS	2024-03-07	WP2405786	0.00216	0.00082	0.00939			<0.0010	0.0128	<0.00030	0.00046
SW-03	Flett	2024-03-07	TMWATR032024CH1-003									
SW-03	Flett	2024-03-07	MTWATR032124JS1-004									
SW-03	ALS	2024-03-07	WP2405786-001									
SW-03	ALS	2024-05-26	WP2413300	0.000355	0.00204	0.00514			0.0041	0.0088	0.00168	0.00224
SW-03	ALS	2024-05-26	WP2413300	0.000333	0.00207	0.00493			0.0043	0.0086	0.00168	0.00249
SW-03	Flett	2024-05-26	TMWATR061924CH1-017									
SW-03	Flett	2024-05-26	TMWATR061924CH1-016									
SW-03	Flett	2024-05-26	MTWATR061024JS1-016									
SW-03	ALS	2024-06-19	WP2415611	0.000453	0.00286	0.00435			0.0044	0.0075	0.00212	0.00238
SW-03	Flett	2024-06-19	TMWATR070224CH1									
SW-03	Flett	2024-06-19	TMWATR070224CH1									
SW-03	ALS	2024-07-10	WP2417255	0.00137	0.00131	0.00144			0.0022	<0.0030	0.00052	0.00044
SW-03	Flett	2024-07-10	MTWATR072424JS2									
SW-03	Flett	2024-07-10	TMWATR072524CH2									
SW-03	ALS	2024-08-10	WP2419573	0.000714	0.00294	0.00419			0.003	0.0046	0.00171	0.00172
SW-03	Flett	2024-08-10	TMWATR091224CH1-006									
SW-03	Flett	2024-08-10	MTWATR091824JS1-002									
SW-03	Flett	2024-08-10	TMWATR091224CH1-005									
SW-03	Flett	2024-08-10	MTWATR091824JS1-001									
SW-03	ALS	2024-09-03	WP2421465									
SW-03	ALS	2024-09-03	WP2421465	0.00108	0.00118	0.00176			0.0015	<0.0030	0.00038	0.0004
SW-03	Flett	2024-09-03	TMWATR092924CH1-011									
SW-03	Flett	2024-09-03	MTWATR100124JS1-013									
SW-03	ALS	2024-10-02	WP2423347	0.0011	0.00113	0.00232			0.0024	0.004	0.00039	0.00041
SW-03	Flett	2024-10-02	TMWATR102824ZB1-004									
SW-03	Flett	2024-10-02	MTWATR112724JS1-003									
SW-03	ALS	2024-11-02	WP2425500	0.00122	0.00073	0.00336			0.0128	0.0248	<0.00030	0.00021
SW-03	Flett	2024-11-02	MTWATR120524JS1-009									
SW-03	Flett	2024-11-02	TMWATR112524CH1-010									
SW-03	ALS	2024-12-01	WP2426900	0.00141	0.00075	0.00266			0.0054	0.0095	<0.00030	0.00032
SW-03	Flett	2024-12-01	TMWATR012125CH1-008									
SW-03	Flett	2024-12-01	MTWATR121924JS1-009									
SW-04	SGS	2022-05-29	CA14964-JUN22	0.000134	0.00061	0.00101	0.00021	0.00032	0.005	0.003	< 0.002	< 0.002
SW-04	SGS	2022-07-25	CA15458-JUL22	0.000242	0.00118	0.00129	0.00033	0.00033	< 0.002	< 0.002	< 0.002	< 0.002
SW-04	SGS	2022-08-09	CA15226-AUG22	0.000255	0.0013	0.00135	0.00034	0.00034	< 0.002	< 0.002		
SW-04	SGS	2022-09-14	CA15266-SEP22	0.000259	0.00128	0.00138	0.00035	0.00034	< 0.002	< 0.002	< 0.002	< 0.002

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Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22	6.35	7.59	9.3	< 2					38		0.306
SW-04	SGS	2022-11-02	CA15141-NOV22	6.76	7.11	4.9	< 2					35		0.421
SW-04	SGS	2023-01-17	CA13675-JAN23	5.51	7.23	0.19	< 2					51		0.228
SW-04	SGS	2023-02-15	CA15347-FEB23	6.35	7.61	2.17	< 2					47	0.074	0.262
SW-04	SGS	2023-03-21	CA15408-MAR23	6.63	7.11	1.4	< 2					49	0.072	0.281
SW-04	SGS	2023-03-21	CA15408-MAR23	6.63	7.2	1.4	< 2					48	0.076	0.3
SW-04	SGS	2023-04-19	CA15419-APR23	6.75	7.43	2.3	< 2					41	0.08	0.366
SW-04	ALS	2023-05-14	WP2308112											
SW-04	ALS	2023-05-14	WP2308112	7.24	7.59	13.4	4.9	33.5	<1.0	<1.0	<1.0	33.5	0.0845	0.296
SW-04	ALS	2023-05-14	WP2308112-004											
SW-04	ALS	2023-06-03	WP2310873	7.32	7.57	22.7	3.2	37.5	<1.0	<1.0	<1.0	37.5	0.0472	0.447
SW-04	ALS	2023-06-03	WP2310873-002											
SW-04	ALS	2023-07-17	WP2316174-001	7.45	7.62	16.4	2.8	99.8	<1.0	<1.0	<1.0	99.8	0.0872	0.773
SW-04	ALS	2023-08-05	WP2318603-003	7.25	7.52	21.2	<2.0	86.3	<1.0	<1.0	<1.0	86.3	0.085	0.423
SW-04	ALS	2023-09-04	WP2322079-002	6.93	7.78	16.3	<2.0	162	<1.0	<1.0	<1.0	162	0.284	1.23
SW-04	ALS	2023-10-03	WP2325641-001											
SW-04	ALS	2023-10-03	WP2325641											
SW-04	ALS	2023-10-11	WP2326289-001	7.02	7.67	10	6.4	104	<1.0	<1.0	<1.0	104	0.0443	0.358
SW-04	ALS	2023-11-03	WP2328799	6.97	7.49	0.3	3.1	39	<1.0	<1.0	<1.0	39	0.0343	0.137
SW-04	ALS	2023-11-03	WP2328799-002											
SW-04	ALS	2023-12-07	WP2332136	7.34	7.45	0.6	2.9	49	<1.0	<1.0	<1.0	49	0.0348	0.182
SW-04	ALS	2023-12-07	WP2332136-004											
SW-04	ALS	2024-01-12	WP2401043	7.07	7.16	<0.10	4.9	48.3	<1.0	<1.0	<1.0	48.3	0.0362	0.145
SW-04	ALS	2024-01-12	WP2401043	7.07	7.08	<0.10	4.8	49	<1.0	<1.0	<1.0	49	0.0375	0.144
SW-04	ALS	2024-01-12	WP2401043-006	7.07	7.08	<0.10	4.8	49	<1.0	<1.0	<1.0	49	0.0375	0.144
SW-04	ALS	2024-01-12	WP2401043-005											
SW-04	ALS	2024-02-05	WP2402956	7	7.3	1.7	4.1	54.5	<1.0	<1.0	<1.0	54.5	0.0317	0.457
SW-04	ALS	2024-02-05	WP2402956-004											
SW-04	ALS	2024-03-03	WP2405262-003											
SW-04	ALS	2024-03-03	WP2405262	7.61	7.6	<0.10	8	57.6	<1.0	<1.0	<1.0	57.6	0.0298	0.233
SW-04	ALS	2024-04-04	WP2408018	6.95	7.4	0.8	2.8	61.5	<1.0	<1.0	<1.0	61.5	0.0276	0.306
SW-04	ALS	2024-04-04	WP2408018-001											
SW-04	ALS	2024-05-23	WP2413138	6.54	7.49	10.1	<2.0	33.1	<1.0	<1.0	<1.0	33.1	0.128	0.387
SW-04	ALS	2024-06-16	WP2415267	6.87	7.17	20.8	4.8	32.8	<1.0	<1.0	<1.0	32.8	0.0954	0.276
SW-04	ALS	2024-07-08	WP2417173	6.34	7.31	23.2	3.3	29.8	<1.0	<1.0	<1.0	29.8	0.082	0.136
SW-04	ALS	2024-08-04	WP2419020											
SW-04	ALS	2024-08-04	WP2419020	6.25	7.46	21.4	3.3	36.7	<1.0	<1.0	<1.0	36.7	0.0637	0.299
SW-04	ALS	2024-09-04	WP2421413	6.08	7.41	15.7	2.4	39	<1.0	<1.0	<1.0	39	0.035	0.21
SW-04	Flett	2024-09-04	TMWATR092924CH1-008											
SW-04	Flett	2024-09-04	MTWATR100124JS1-009											
SW-04	ALS	2024-10-02	WP2423347	6.57	7.51	12.7	3.4	35.2	<1.0	<1.0	<1.0	35.2	0.052	0.182
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008											
SW-04	Flett	2024-10-02	MTWATR112624JS1-016											
SW-04	ALS	2024-11-02	WP2425500	7.72	7.59	2.1	<2.0	40.1	<1.0	<1.0	<1.0	40.1	0.0447	0.193
SW-04	Flett	2024-11-02	MTWATR120524JS1-005											
SW-04	Flett	2024-11-02	TMWATR112524CH1-006											
SW-04	ALS	2024-12-01	WP2426900	7.38	7.39	0.1	2.3	34.7	<1.0	<1.0	<1.0	34.7	0.0619	0.142
SW-04	Flett	2024-12-01	TMWATR012125CH1-012											
SW-04	Flett	2024-12-01	MTWATR121924JS1-012											
SW-06	ALS	2024-06-05	WP2414533	6.11	6.48	11.4	8	13.1	<1.0	<1.0	<1.0	13.1	0.588	0.832
SW-07	ALS	2024-06-05	WP2414533	6.53	7.06	12.9	4.7	34.5	<1.0	<1.0	<1.0	34.5	0.142	0.159
SW-08	SGS	2022-06-07	CA15258-JUN22		7.2		<2					23		0.679

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22	0.04			< 0.1	< 0.0009	< 0.0009	0.0017	0.0018	0.01	0.0126	0.000013	0.000015
SW-04	SGS	2022-11-02	CA15141-NOV22	0.048			< 0.1	< 0.0009	< 0.0009	0.0018	0.0023	0.0109	0.0141	0.000012	0.000018
SW-04	SGS	2023-01-17	CA13675-JAN23	0.066			0.2	< 0.0009	< 0.0009	0.0022	0.0023	0.0113	0.0134	0.000108	0.000076
SW-04	SGS	2023-02-15	CA15347-FEB23	0.075			< 0.1	< 0.0009	< 0.0009	0.0017	0.002	0.0112	0.0131	0.000019	0.000025
SW-04	SGS	2023-03-21	CA15408-MAR23	0.072			< 0.1	< 0.0009	< 0.0009	0.0016	0.0023	0.011	0.0133	0.000012	0.000022
SW-04	SGS	2023-03-21	CA15408-MAR23	0.063			< 0.1	< 0.0009	< 0.0009	0.0018	0.0024	0.0115	0.01371	0.000011	0.00002
SW-04	SGS	2023-04-19	CA15419-APR23	0.221			< 0.1	< 0.0009	< 0.0009	0.002	0.0027	0.01	0.0133	0.000009	0.000024
SW-04	ALS	2023-05-14	WP2308112												
SW-04	ALS	2023-05-14	WP2308112			<0.0010	0.017	<0.00010	<0.00010	0.00154	0.00169	0.00839	0.01	<0.000020	<0.000020
SW-04	ALS	2023-05-14	WP2308112-004		0.017										
SW-04	ALS	2023-06-03	WP2310873			<0.0010	0.044	<0.00010	<0.00010	0.00194	0.00224	0.0104	0.0134	<0.000020	0.000023
SW-04	ALS	2023-06-03	WP2310873-002		0.044										
SW-04	ALS	2023-07-17	WP2316174-001		<0.010	<0.0010		<0.00010	<0.00010	0.00297	0.00355	0.0616	0.0726	<0.000020	0.000027
SW-04	ALS	2023-08-05	WP2318603-003		0.024	<0.0010		<0.00010	<0.00010	0.00309	0.0031	0.0298	0.0276	<0.000020	<0.000020
SW-04	ALS	2023-09-04	WP2322079-002		0.023	<0.0010		<0.00010	0.0001	0.00641	0.00775	0.796	0.868	<0.000020	0.000029
SW-04	ALS	2023-10-03	WP2325641-001												
SW-04	ALS	2023-10-03	WP2325641												
SW-04	ALS	2023-10-11	WP2326289-001		0.078	<0.0010		<0.00010	<0.00010	0.00245	0.00269	0.0227	0.0238	<0.000020	<0.000020
SW-04	ALS	2023-11-03	WP2328799			<0.0010	0.0073	<0.00010	<0.00010	0.0015	0.00166	0.0102	0.0107	<0.000020	<0.000020
SW-04	ALS	2023-11-03	WP2328799-002		0.0073										
SW-04	ALS	2023-12-07	WP2332136			<0.0010	0.0271	<0.00010	<0.00010	0.00148	0.00155	0.0123	0.0143	<0.000020	<0.000020
SW-04	ALS	2023-12-07	WP2332136-004		0.0271										
SW-04	ALS	2024-01-12	WP2401043			<0.0010	0.0391	<0.00010	0.00015	0.00158	0.0016	0.0113	0.0122	<0.000020	<0.000020
SW-04	ALS	2024-01-12	WP2401043			<0.0010	0.0339	<0.00010	<0.00010	0.00157	0.00167	0.0119	0.012	<0.000020	<0.000020
SW-04	ALS	2024-01-12	WP2401043-006		0.0339	<0.0010		<0.00010	<0.00010	0.00157	0.00167	0.0119	0.012	<0.000020	<0.000020
SW-04	ALS	2024-01-12	WP2401043-005		0.0391										
SW-04	ALS	2024-02-05	WP2402956			<0.0010	0.477	<0.00010	<0.00010	0.00145	0.00181	0.0117	0.0163	<0.000020	0.000021
SW-04	ALS	2024-02-05	WP2402956-004		0.477										
SW-04	ALS	2024-03-03	WP2405262-003		0.0302										
SW-04	ALS	2024-03-03	WP2405262			<0.0010	0.0302	<0.00010	<0.00010	0.00154	0.00194	0.0136	0.0154	<0.000020	<0.000020
SW-04	ALS	2024-04-04	WP2408018			<0.0010	0.0251	0.0001	<0.00010	0.00188	0.00246	0.0131	0.0155	0.000039	<0.000020
SW-04	ALS	2024-04-04	WP2408018-001		0.0251										
SW-04	ALS	2024-05-23	WP2413138			<0.0010	0.0275	<0.00010	<0.00010	0.00178	0.00195	0.009	0.0109	<0.000020	<0.000020
SW-04	ALS	2024-06-16	WP2415267			<0.0010	0.0167	<0.00010	0.00013	0.00232	0.00238	0.00949	0.011	<0.000020	0.000025
SW-04	ALS	2024-07-08	WP2417173			<0.0010	0.046	<0.00010	<0.00010	0.00254	0.00266	0.00895	0.00983	<0.000020	<0.000020
SW-04	ALS	2024-08-04	WP2419020												
SW-04	ALS	2024-08-04	WP2419020			<0.0010	0.148	<0.00010	<0.00010	0.0038	0.00402	0.00943	0.011	<0.000020	0.000023
SW-04	ALS	2024-09-04	WP2421413			<0.0010	0.038	<0.00010	<0.00010	0.00336	0.00339	0.00884	0.0109	<0.000020	0.000024
SW-04	Flett	2024-09-04	TMWATR092924CH1-008												
SW-04	Flett	2024-09-04	MTWATR100124JS1-009												
SW-04	ALS	2024-10-02	WP2423347			<0.0010	0.0252	<0.00010	<0.00010	0.00262	0.00288	0.00893	0.0102	<0.000020	<0.000020
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008												
SW-04	Flett	2024-10-02	MTWATR112624JS1-016												
SW-04	ALS	2024-11-02	WP2425500			<0.0010	0.0402	<0.00010	<0.00010	0.00196	0.00203	0.0139	0.0153	<0.000020	0.000022
SW-04	Flett	2024-11-02	MTWATR120524JS1-005												
SW-04	Flett	2024-11-02	TMWATR112524CH1-006												
SW-04	ALS	2024-12-01	WP2426900			<0.0010	0.0236	0.0001	<0.00010	0.00208	0.00208	0.0125	0.0125	<0.000020	<0.000020
SW-04	Flett	2024-12-01	TMWATR012125CH1-012												
SW-04	Flett	2024-12-01	MTWATR121924JS1-012												
SW-06	ALS	2024-06-05	WP2414533			<0.0010	0.0174	0.00019	0.00018	0.00431	0.00447	0.0108	0.014	0.00004	0.00006
SW-07	ALS	2024-06-05	WP2414533			<0.0010	0.0216	0.0001	<0.00010	0.00227	0.00219	0.00848	0.00829	<0.000020	<0.000020
SW-08	SGS	2022-06-07	CA15258-JUN22	0.102			< 0.1	< 0.0009	< 0.0009	0.0013	0.002	0.00694	0.01222	0.000015	0.000022

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22	< 0.00001	< 0.00001	0.007	0.006	0.000037	0.000009	11.1	9.28	20			45	< 1
SW-04	SGS	2022-11-02	CA15141-NOV22	< 0.00001	< 0.00001	0.006	0.006	< 0.000004	0.000004	10.7	11.6	18			45	< 1
SW-04	SGS	2023-01-17	CA13675-JAN23	0.00001	0.00001	0.006	0.008	0.000052	0.000105	13.4	14.5	19			51	1
SW-04	SGS	2023-02-15	CA15347-FEB23	< 0.00001	< 0.00001	0.006	0.006	0.000017	0.000007	14	15	16			56	< 1
SW-04	SGS	2023-03-21	CA15408-MAR23	< 0.00001	< 0.00001	0.005	0.005	0.000005	0.000007	15.4	15.6	21			53	2
SW-04	SGS	2023-03-21	CA15408-MAR23	< 0.00001	< 0.00001	0.006	0.006	0.000007	0.000007	16.2	16.2	21			44	< 1
SW-04	SGS	2023-04-19	CA15419-APR23	< 0.00001	< 0.00001	0.005	0.005	0.000006	0.000009	12.8	14	23			50	1
SW-04	ALS	2023-05-14	WP2308112													
SW-04	ALS	2023-05-14	WP2308112	<0.000050	<0.000050	<0.010	<0.010	0.0000051	<0.0000050	9.61	10.2	20.5	<0.000010	0.000025		0.24
SW-04	ALS	2023-05-14	WP2308112-004													
SW-04	ALS	2023-06-03	WP2310873	<0.000050	<0.000050	0.011	<0.010	<0.0000050	0.0000098	11	11.5	17.9	<0.000010	0.00005		0.35
SW-04	ALS	2023-06-03	WP2310873-002													
SW-04	ALS	2023-07-17	WP2316174-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000013	26.9	28.4	18.8	<0.000010	0.000062		0.99
SW-04	ALS	2023-08-05	WP2318603-003	<0.000050	<0.000050	<0.010	<0.010	0.0000078	0.0000121	23.9	23.4	22.8	<0.000010	0.000046		0.94
SW-04	ALS	2023-09-04	WP2322079-002	<0.000050	<0.000050	<0.010	<0.010	0.000015	0.0000233	39.1	35.7	55.6	0.000028	0.00011		3.91
SW-04	ALS	2023-10-03	WP2325641-001													
SW-04	ALS	2023-10-03	WP2325641													
SW-04	ALS	2023-10-11	WP2326289-001	<0.000050	<0.000050	<0.010	<0.010	0.0000063	0.0000082	28.5	28.2	20.3	<0.000010	0.00003		1.33
SW-04	ALS	2023-11-03	WP2328799	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000052	11.1	10.9	15.4	<0.000010	0.000013		0.26
SW-04	ALS	2023-11-03	WP2328799-002													
SW-04	ALS	2023-12-07	WP2332136	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13.9	14	19.8	<0.000010	0.000016		0.35
SW-04	ALS	2023-12-07	WP2332136-004													
SW-04	ALS	2024-01-12	WP2401043	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13.9	14.2	16.3	<0.000010	0.000015		0.41
SW-04	ALS	2024-01-12	WP2401043	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	14	14.3	17.7	<0.000010	0.000012		0.76
SW-04	ALS	2024-01-12	WP2401043-006	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	14	14.3	17.7	<0.000010	0.000012		0.76
SW-04	ALS	2024-01-12	WP2401043-005													<
SW-04	ALS	2024-02-05	WP2402956	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000086	15	16.5	18.2	<0.000010	0.000055		0.89
SW-04	ALS	2024-02-05	WP2402956-004													
SW-04	ALS	2024-03-03	WP2405262-003													
SW-04	ALS	2024-03-03	WP2405262	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000076	16.2	16.3	17.1	<0.000010	0.000028		0.46
SW-04	ALS	2024-04-04	WP2408018	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000057	17.8	17.4	19.1	<0.000010	0.000038		0.66
SW-04	ALS	2024-04-04	WP2408018-001													
SW-04	ALS	2024-05-23	WP2413138	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000005	10.6	10.1	24.5	<0.000010	0.000029		0.29
SW-04	ALS	2024-06-16	WP2415267	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000075	10.3	10.5	23	<0.000010	0.000025		0.28
SW-04	ALS	2024-07-08	WP2417173	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.58	9.29	23.6	<0.000010	0.000011		0.15
SW-04	ALS	2024-08-04	WP2419020													
SW-04	ALS	2024-08-04	WP2419020	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000055	11.5	11.1	25.6	<0.000010	0.000034		0.22
SW-04	ALS	2024-09-04	WP2421413	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.8	12.1	21.8	<0.000010	0.000029		0.24
SW-04	Flett	2024-09-04	TMWATR092924CH1-008													
SW-04	Flett	2024-09-04	MTWATR100124JS1-009													
SW-04	ALS	2024-10-02	WP2423347	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.7	10.8	24	<0.000010	0.000015		0.17
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008													
SW-04	Flett	2024-10-02	MTWATR112624JS1-016													
SW-04	ALS	2024-11-02	WP2425500	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000008	11.4	11.8	22.8	<0.000010	0.000022		0.31
SW-04	Flett	2024-11-02	MTWATR120524JS1-005													
SW-04	Flett	2024-11-02	TMWATR112524CH1-006													
SW-04	ALS	2024-12-01	WP2426900	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	7.52	10.5	22.8	<0.000010	0.000015		0.44
SW-04	Flett	2024-12-01	TMWATR012125CH1-012													
SW-04	Flett	2024-12-01	MTWATR121924JS1-012													
SW-06	ALS	2024-06-05	WP2414533	<0.000050	<0.000050	<0.010	<0.010	0.0000136	0.0000181	8.89	8.99	54.9	<0.000010	0.000027		1.23
SW-07	ALS	2024-06-05	WP2414533	<0.000050	<0.000050	<0.010	<0.010	0.0000051	0.0000055	12.9	12.3	38.6	<0.000010	<0.000010		0.37
SW-08	SGS	2022-06-07	CA15258-JUN22	< 0.00001	< 0.00001	0.005	0.007	0.000003	0.00002	6.1	6.7	18			50	< 1

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22	0.00036	0.00082	0.000101	0.000214	71	0.0011	0.0011			< 0.01			0.07
SW-04	SGS	2022-11-02	CA15141-NOV22	0.00038	0.00111	0.000066	0.000255	65	0.0011	0.0014	< 0.005		< 0.01	< 0.01		0.07
SW-04	SGS	2023-01-17	CA13675-JAN23	0.00055	0.0009	0.000106	0.000173	81	0.001	0.0014	< 0.005		< 0.01	< 0.01		0.08
SW-04	SGS	2023-02-15	CA15347-FEB23	0.0003	0.00096	0.000055	0.000183	98	0.001	0.0012	< 0.005		< 0.01			0.07
SW-04	SGS	2023-03-21	CA15408-MAR23	< 0.00008	0.00079	0.000073	0.000228	105	0.0011	0.0013	< 0.005		< 0.01			0.09
SW-04	SGS	2023-03-21	CA15408-MAR23	0.00048	0.00085	0.000079	0.000245	103	0.0011	0.0014	< 0.005		< 0.01			0.08
SW-04	SGS	2023-04-19	CA15419-APR23	0.00031	0.0009	0.000064	0.000342	88	0.001	0.0013	< 0.005		< 0.01			0.06
SW-04	ALS	2023-05-14	WP2308112	0.00034	0.00072											
SW-04	ALS	2023-05-14	WP2308112	<0.00050	0.00072	<0.00010	0.00016	74	0.00086	0.00102	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2023-05-14	WP2308112-004	0.00034												
SW-04	ALS	2023-06-03	WP2310873	0.00032	0.00102	0.0001	0.00032	79.3	0.00082	0.00122	<0.0010	<0.0010		0.001		
SW-04	ALS	2023-06-03	WP2310873-002													
SW-04	ALS	2023-07-17	WP2316174-001	0.00041	0.00166	<0.00010	0.00051	187	0.00134	0.00201	0.002	0.0014		0.0018		
SW-04	ALS	2023-08-05	WP2318603-003	0.00034	0.00084	0.00019	0.00031	169	0.0015	0.00287	0.0012	<0.0010		0.0012		
SW-04	ALS	2023-09-04	WP2322079-002	0.00092	0.00264	0.00068	0.00104	290	0.00199	0.00407	0.0013	<0.0010		<0.0010		
SW-04	ALS	2023-10-03	WP2325641-001													
SW-04	ALS	2023-10-03	WP2325641													
SW-04	ALS	2023-10-11	WP2326289-001	0.00037	0.00087	<0.00010	0.00022	190	0.00096	0.00139	<0.0010	0.0011		0.0011		
SW-04	ALS	2023-11-03	WP2328799	0.00015	0.00031	<0.00010	0.00012	79.3	<0.00020	0.00077	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2023-11-03	WP2328799-002													
SW-04	ALS	2023-12-07	WP2332136	0.00026	0.00044	<0.00010	0.00015	102	0.00069	0.00082	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2023-12-07	WP2332136-004													
SW-04	ALS	2024-01-12	WP2401043	0.00022	0.00051	0.0001	0.00015	99	0.00076	0.00107	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2024-01-12	WP2401043	0.00021	0.00045	0.0001	0.00013	102	0.0009	0.00102	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2024-01-12	WP2401043-006	<0.00021	<0.00045	0.0001	0.00013	102	0.0009	0.00102	<0.0010	<0.001		<0.0010		
SW-04	ALS	2024-01-12	WP2401043-005	0.00050	0.0002	0.00051	0.00051									
SW-04	ALS	2024-02-05	WP2402956	0.00022	0.00088	0.00012	0.00031	119	0.0007	0.00129	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2024-02-05	WP2402956-004													
SW-04	ALS	2024-03-03	WP2405262-003	0.0002												
SW-04	ALS	2024-03-03	WP2405262	<0.00050	0.00056	0.00015	0.00027	118	0.00065	0.0011	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2024-04-04	WP2408018	0.00025	0.00071	0.00023	0.00037	124	0.00082	0.00123	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2024-04-04	WP2408018-001													
SW-04	ALS	2024-05-23	WP2413138	0.00043	0.0009	<0.00010	0.00019	68.1	0.00098	0.00133	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2024-06-16	WP2415267	0.00044	0.00074	0.00019	0.00028	72.6	0.00098	0.00123	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2024-07-08	WP2417173	0.00043	0.00052	<0.00010	0.00014	65.2	0.00088	0.00094	<0.0010	<0.0010		<0.0010		
SW-04	ALS	2024-08-04	WP2419020	0.00037	0.0008											
SW-04	ALS	2024-08-04	WP2419020	<0.00050	0.0008	0.00014	0.00027	80.5	0.001	0.00124	0.0018	0.0015		0.0018		
SW-04	ALS	2024-09-04	WP2421413	0.00027	0.00061	0.00011	0.0002	84.2	0.0007	0.00088	<0.0010	0.0011		<0.0010		
SW-04	Flett	2024-09-04	TMWATR092924CH1-008													
SW-04	Flett	2024-09-04	MTWATR100124JS1-009													
SW-04	ALS	2024-10-02	WP2423347	0.00032	0.00062	0.00011	0.00016	79.6	0.00076	0.0009	<0.0010	<0.0010		<0.0010		
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008													
SW-04	Flett	2024-10-02	MTWATR112624JS1-016													
SW-04	ALS	2024-11-02	WP2425500	0.00029	0.0006	<0.00010	0.00016	83.7	0.0008	0.00101	<0.0010	<0.0010		<0.0010		
SW-04	Flett	2024-11-02	MTWATR120524JS1-005													
SW-04	Flett	2024-11-02	TMWATR112524CH1-006													
SW-04	ALS	2024-12-01	WP2426900	0.0003	0.00046	<0.00010	0.00012	78.1	0.00078	0.00094	<0.0010	<0.0010		<0.0010		
SW-04	Flett	2024-12-01	TMWATR012125CH1-012													
SW-04	Flett	2024-12-01	MTWATR121924JS1-012													
SW-06	ALS	2024-06-05	WP2414533	0.00125	0.00182	0.00044	0.00077	49.6	0.00231	0.00282	0.0014	0.0012		0.0014		
SW-07	ALS	2024-06-05	WP2414533	0.00052	0.00048	<0.00010	0.0001	76.2	0.00088	0.00089	0.001	<0.0010		0.0011		
SW-08	SGS	2022-06-07	CA15258-JUN22	0.00051	0.00145	0.000107	0.000359	46	0.0012	0.0017			< 0.01			< 0.06

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22	39.5	32.8	0.5	0.672	0.00014	0.00028			2.86	2.35	0.0197	0.0234
SW-04	SGS	2022-11-02	CA15141-NOV22	39.2	42.5	0.425	0.907	0.00016	0.0003			3.04	3.27	0.0111	0.03
SW-04	SGS	2023-01-17	CA13675-JAN23	47.8	51.6	0.508	0.749	0.0002	0.00034			3.48	3.71	0.0183	0.0282
SW-04	SGS	2023-02-15	CA15347-FEB23	50.2	54.1	0.466	0.859	0.00011	0.00023			3.69	4.01	0.00608	0.0401
SW-04	SGS	2023-03-21	CA15408-MAR23	55.2	56.2	0.555	1.05	< 0.00009	0.00025			4.06	4.18	0.033	0.0685
SW-04	SGS	2023-03-21	CA15408-MAR23	59.1	58.3	0.608	1.08	0.00012	0.00023			4.53	4.31	0.041	0.06982
SW-04	SGS	2023-04-19	CA15419-APR23	47.2	51	0.547	1.21	0.00013	0.00024			3.68	3.92	0.00486	0.105
SW-04	ALS	2023-05-14	WP2308112												
SW-04	ALS	2023-05-14	WP2308112	36.4	38.2	0.355	0.676	0.000067	0.000142	0.0014	0.0022	3	3.08	0.0118	0.0216
SW-04	ALS	2023-05-14	WP2308112-004												
SW-04	ALS	2023-06-03	WP2310873	40.6	43.1	0.337	0.9	0.000092	0.000266	0.0018	0.0029	3.18	3.49	0.0472	0.0599
SW-04	ALS	2023-06-03	WP2310873-002												
SW-04	ALS	2023-07-17	WP2316174-001	95	100	0.455	1.43	0.00015	0.000393	0.0029	0.0046	6.77	7.2	0.00246	0.163
SW-04	ALS	2023-08-05	WP2318603-003	83.6	81.3	0.468	0.906	0.000149	0.000281	0.0029	0.0028	5.82	5.56	0.124	0.129
SW-04	ALS	2023-09-04	WP2322079-002	139	128	1.49	2.74	0.00032	0.000706	0.006	0.0066	10	9.44	0.892	0.893
SW-04	ALS	2023-10-03	WP2325641-001												
SW-04	ALS	2023-10-03	WP2325641												
SW-04	ALS	2023-10-11	WP2326289-001	99.7	95.5	0.409	0.973	0.000053	0.00021	0.0024	0.0027	6.93	6.1	0.0284	0.0544
SW-04	ALS	2023-11-03	WP2328799	41.8	41.2	0.143	0.296	<0.000050	0.0001	0.0016	0.0017	3.43	3.4	0.00772	0.0112
SW-04	ALS	2023-11-03	WP2328799-002												
SW-04	ALS	2023-12-07	WP2332136	52.2	51.6	0.178	0.385	0.000061	0.000111	0.0016	0.0013	4.24	4.03	0.0158	0.0182
SW-04	ALS	2023-12-07	WP2332136-004												
SW-04	ALS	2024-01-12	WP2401043	51.2	52.3	0.219	0.361	0.000067	0.00013	0.0014	0.002	4	4.09	0.0198	0.0244
SW-04	ALS	2024-01-12	WP2401043	52	53	0.223	0.337	0.000069	0.00013	0.0014	0.002	4.14	4.2	0.0205	0.0249
SW-04	ALS	2024-01-12	WP2401043-006	52	53	0.223	0.337	0.000069	0.00013	0.0014	0.002	4.14	4.2	0.0205	0.0249
SW-04	ALS	2024-01-12	WP2401043-005												
SW-04	ALS	2024-02-05	WP2402956	56.3	61.4	0.24	0.758	0.00006	0.000251	0.0018	0.0032	4.58	4.9	0.0342	0.0448
SW-04	ALS	2024-02-05	WP2402956-004												
SW-04	ALS	2024-03-03	WP2405262-003												
SW-04	ALS	2024-03-03	WP2405262	59.3	60.2	0.295	0.692	<0.000050	0.000136	0.0023	0.0026	4.58	4.73	0.077	0.0968
SW-04	ALS	2024-04-04	WP2408018	63.9	65	0.439	0.987	0.000072	0.000184	0.0026	0.0024	4.72	5.24	0.13	0.139
SW-04	ALS	2024-04-04	WP2408018-001												
SW-04	ALS	2024-05-23	WP2413138	38.6	37.7	0.327	0.606	0.000076	0.000156	0.0016	0.0015	2.95	3.04	0.0176	0.0235
SW-04	ALS	2024-06-16	WP2415267	38.8	38.9	0.454	0.717	0.000078	0.000158	0.0016	0.0016	3.18	3.07	0.0682	0.0816
SW-04	ALS	2024-07-08	WP2417173	36.4	35.1	0.42	0.565	0.000064	0.000109	0.0016	<0.0010	3.03	2.9	0.0273	0.0384
SW-04	ALS	2024-08-04	WP2419020												
SW-04	ALS	2024-08-04	WP2419020	42.8	42.2	0.49	0.864	0.000143	0.000196	0.0023	0.0026	3.42	3.51	0.0439	0.0569
SW-04	ALS	2024-09-04	WP2421413	42.8	43.7	0.371	0.594	0.000098	0.000165	0.0016	0.0018	3.23	3.27	0.0314	0.0378
SW-04	Flett	2024-09-04	TMWATR092924CH1-008												
SW-04	Flett	2024-09-04	MTWATR100124JS1-009												
SW-04	ALS	2024-10-02	WP2423347	39.5	40.2	0.364	0.549	0.000101	0.000146	0.0014	0.0025	3.1	3.22	0.0183	0.0199
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008												
SW-04	Flett	2024-10-02	MTWATR112624JS1-016												
SW-04	ALS	2024-11-02	WP2425500	41.7	44.4	0.356	0.597	0.000118	0.000191	0.0016	0.002	3.22	3.62	0.0186	0.0222
SW-04	Flett	2024-11-02	MTWATR120524JS1-005												
SW-04	Flett	2024-11-02	TMWATR112524CH1-006												
SW-04	ALS	2024-12-01	WP2426900	31.8	37	0.346	0.508	0.000098	0.0002	0.0014	<0.0010	3.16	2.61	0.00934	0.0121
SW-04	Flett	2024-12-01	TMWATR012125CH1-012												
SW-04	Flett	2024-12-01	MTWATR121924JS1-012												
SW-06	ALS	2024-06-05	WP2414533	32	33.7	0.881	1.29	0.000139	0.000384	0.002	0.0024	2.38	2.74	0.0331	0.0484
SW-07	ALS	2024-06-05	WP2414533	44.8	42.9	0.179	0.214	<0.000050	<0.000050	0.0018	0.0018	3.05	2.95	0.00319	0.00488
SW-08	SGS	2022-06-07	CA15258-JUN22	23.1	26.1	0.241	0.889	< 0.00009	0.00032	0.001	0.0016	1.91	2.29	0.0105	0.0302

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22			< 0.00001		0.00026	0.0002	0.0006	0.0008	0.07	0.07	< 0.03	
SW-04	SGS	2022-11-02	CA15141-NOV22	< 0.00001		< 0.00001		0.00023	0.00023	0.0007	0.0011	0.06	0.06	< 0.03	
SW-04	SGS	2023-01-17	CA13675-JAN23	< 0.00001		< 0.00001		0.00028	0.00029	0.0007	0.0008	0.11	0.11	< 0.03	
SW-04	SGS	2023-02-15	CA15347-FEB23	< 0.00001		< 0.00001		0.00023	0.00026	0.0007	0.0009	0.16	0.16	< 0.03	
SW-04	SGS	2023-03-21	CA15408-MAR23	< 0.00001		< 0.00001		0.00026	0.00027	0.0007	0.001	0.18	0.18	< 0.03	
SW-04	SGS	2023-03-21	CA15408-MAR23	< 0.00001		< 0.00001		0.00027	0.00029	0.0008	0.0011	0.18	0.18	< 0.03	
SW-04	SGS	2023-04-19	CA15419-APR23	< 0.00001		< 0.00001		0.00022	0.00024	0.0007	0.001	0.31	0.31	< 0.03	
SW-04	ALS	2023-05-14	WP2308112												
SW-04	ALS	2023-05-14	WP2308112	<0.0000050		<0.0000050		0.00017	0.000181	0.00055	0.00081	0.0788	0.0788	<0.0010	
SW-04	ALS	2023-05-14	WP2308112-004												
SW-04	ALS	2023-06-03	WP2310873	<0.0000050		<0.0000050		0.000208	0.000211	0.00057	0.00106	0.0252	0.0267	0.0015	
SW-04	ALS	2023-06-03	WP2310873-002												
SW-04	ALS	2023-07-17	WP2316174-001	<0.0000050		<0.0000050		0.000518	0.00052	0.00083	0.00153	<0.0050	<0.0051	<0.0010	
SW-04	ALS	2023-08-05	WP2318603-003	<0.0000050		<0.0000050		0.000361	0.000348	0.00094	0.0013	<0.0050	<0.0051	<0.0010	
SW-04	ALS	2023-09-04	WP2322079-002	<0.0000050		<0.0000050		0.001	0.00117	0.00261	0.00346	<0.0050	<0.0051	<0.0010	
SW-04	ALS	2023-10-03	WP2325641-001												
SW-04	ALS	2023-10-03	WP2325641												
SW-04	ALS	2023-10-11	WP2326289-001	<0.0000050		<0.0000050		0.000311	0.000365	0.00092	0.00126	0.143	0.145	0.0022	
SW-04	ALS	2023-11-03	WP2328799	<0.0000050		<0.0000050		0.00021	0.000206	<0.00050	0.00061	0.0182	0.0182	<0.0010	
SW-04	ALS	2023-11-03	WP2328799-002												
SW-04	ALS	2023-12-07	WP2332136	<0.0000050		<0.0000050		0.00024	0.000219	0.00054	0.0007	0.0574	0.0592	0.0018	
SW-04	ALS	2023-12-07	WP2332136-004												
SW-04	ALS	2024-01-12	WP2401043	<0.0000050		<0.0000050		0.00023	0.000255	<0.00050	0.00065	0.0662	0.068	0.0018	
SW-04	ALS	2024-01-12	WP2401043	<0.0000050		<0.0000050		0.000224	0.000244	0.00053	0.00066	0.0792	0.0813	0.0021	
SW-04	ALS	2024-01-12	WP2401043-006	<0.0000050		<0.0000050		0.000224	0.000244	0.00053	0.00066	0.0792	0.0813	0.0021	
SW-04	ALS	2024-01-12	WP2401043-005												
SW-04	ALS	2024-02-05	WP2402956	0.0000115		<0.0000050		0.000237	0.000272	0.00053	0.001	0.0722	0.0732	0.001	
SW-04	ALS	2024-02-05	WP2402956-004												
SW-04	ALS	2024-03-03	WP2405262-003												
SW-04	ALS	2024-03-03	WP2405262	<0.0000050		<0.0000050		0.000242	0.00027	<0.00050	0.00083	0.117	0.117	<0.0010	
SW-04	ALS	2024-04-04	WP2408018	<0.0000050		<0.0000050		0.000359	0.00028	0.00058	0.00088	0.0986	0.103	0.0047	<0.03
SW-04	ALS	2024-04-04	WP2408018-001												
SW-04	ALS	2024-05-23	WP2413138	<0.0000050		<0.0000050		0.000164	0.000145	0.00073	0.00104	0.0757	0.0757	<0.0010	
SW-04	ALS	2024-06-16	WP2415267	<0.0000050		<0.0000050		0.00023	0.000247	0.00078	0.00087	<0.0050	<0.0051	<0.0010	
SW-04	ALS	2024-07-08	WP2417173	<0.0000050		<0.0000050		0.000171	0.000165	0.00072	0.00076	0.0114	0.0114	<0.0010	
SW-04	ALS	2024-08-04	WP2419020												
SW-04	ALS	2024-08-04	WP2419020	<0.0000050		<0.0000050		0.000227	0.000231	0.00071	0.00102	0.117	0.149	0.0322	<0.030
SW-04	ALS	2024-09-04	WP2421413	<0.0000050		<0.0000050		0.000229	0.000195	0.00057	0.00078	0.0962	0.0993	0.0031	<0.030
SW-04	Flett	2024-09-04	TMWATR092924CH1-008				1.74								
SW-04	Flett	2024-09-04	MTWATR100124JS1-009		0.105										
SW-04	ALS	2024-10-02	WP2423347	<0.0000050		<0.0000050		0.000185	0.000208	0.00063	0.00074	0.0501	0.0519	0.0018	<0.030
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008				1.73								
SW-04	Flett	2024-10-02	MTWATR112624JS1-016		0.078										
SW-04	ALS	2024-11-02	WP2425500	<0.0000050		<0.0000050		0.000201	0.00022	0.00056	0.00075	0.0487	0.0497	0.001	<0.030
SW-04	Flett	2024-11-02	MTWATR120524JS1-005		0.048										
SW-04	Flett	2024-11-02	TMWATR112524CH1-006				2.37								
SW-04	ALS	2024-12-01	WP2426900	<0.0000050		<0.0000050		0.000146	0.000196	0.00069	0.00064	0.0709	0.0709	<0.0010	<0.030
SW-04	Flett	2024-12-01	TMWATR012125CH1-012				1.64								
SW-04	Flett	2024-12-01	MTWATR121924JS1-012		0.047										
SW-06	ALS	2024-06-05	WP2414533	0.0000162		0.0000106		0.000166	0.000153	0.00162	0.00209	0.039	0.039	<0.0010	
SW-07	ALS	2024-06-05	WP2414533	0.0000084		0.000006		0.00014	0.000157	0.00088	0.00084	0.0147	0.0147	<0.0010	
SW-08	SGS	2022-06-07	CA15258-JUN22	< 0.00001		< 0.00001		0.00018	0.0002	0.0008	0.0013	< 0.06	< 0.06	< 0.03	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22	0.02			0.028	0.96	0.874				0.0001	0.0001	0.95
SW-04	SGS	2022-11-02	CA15141-NOV22	0.017			0.03	0.916	1.08				0.0001	0.0001	0.81
SW-04	SGS	2023-01-17	CA13675-JAN23	0.033			0.043	1.08	1.22				0.00088	0.00282	1.85
SW-04	SGS	2023-02-15	CA15347-FEB23	0.021			0.032	1.13	1.23				0.00024	0.00023	2.12
SW-04	SGS	2023-03-21	CA15408-MAR23	0.015			0.03	1.18	1.24				0.0001	0.00018	2.6
SW-04	SGS	2023-03-21	CA15408-MAR23	0.017			0.035	1.26	1.28				0.00012	0.0001	2.8
SW-04	SGS	2023-04-19	CA15419-APR23	0.016			0.041	1.1	1.25				0.00009	0.00011	2.66
SW-04	ALS	2023-05-14	WP2308112	<0.030											
SW-04	ALS	2023-05-14	WP2308112	<0.050	0.036	0.03	<0.050	0.93	1.06		0.00155	0.00193	0.000085	0.000104	2.32
SW-04	ALS	2023-05-14	WP2308112-004	<0.030			0.036								
SW-04	ALS	2023-06-03	WP2310873	<0.030	0.039	0.0392	<0.050	1.09	1.2		0.00178	0.00263	0.000095	0.000128	1.85
SW-04	ALS	2023-06-03	WP2310873-002				0.039								
SW-04	ALS	2023-07-17	WP2316174-001	<0.030		0.0678	0.072	1.66	1.94		0.00225	0.00317	0.000081	0.000092	3.74
SW-04	ALS	2023-08-05	WP2318603-003	<0.030		0.05	0.039	1.87	1.99		0.00234	0.00305	0.000084	0.00009	3.25
SW-04	ALS	2023-09-04	WP2322079-002	0.038		0.116	0.122	3.44	3.37		0.00409	0.00502	0.000119	0.000119	5.51
SW-04	ALS	2023-10-03	WP2325641-001												
SW-04	ALS	2023-10-03	WP2325641												
SW-04	ALS	2023-10-11	WP2326289-001	<0.030		0.0429	0.032	2.22	1.99		0.0027	0.00294	0.000094	0.000082	7.08
SW-04	ALS	2023-11-03	WP2328799	<0.030	<0.030	0.0274	<0.050	1.17	1.12		0.00171	0.00202	0.000072	0.000074	2.33
SW-04	ALS	2023-11-03	WP2328799-002				<0.030								
SW-04	ALS	2023-12-07	WP2332136	<0.030	<0.030	0.0243	<0.050	1.25	1.3		0.00199	0.00234	0.000088	0.000102	2.84
SW-04	ALS	2023-12-07	WP2332136-004				<0.030								
SW-04	ALS	2024-01-12	WP2401043	<0.030	<0.030	0.0249	<0.050	1.2	1.29		0.00208	0.00231	0.000101	0.000089	2.98
SW-04	ALS	2024-01-12	WP2401043	<0.030	<0.030	0.0251	<0.050	1.22	1.33		0.00209	0.00233	0.000119	0.000128	3.03
SW-04	ALS	2024-01-12	WP2401043-006	<0.030				1.22	1.33		0.00209	0.00233	0.000119	0.000128	3.03
SW-04	ALS	2024-01-12	WP2401043-005	<0.050 <0.030											
SW-04	ALS	2024-02-05	WP2402956	<0.030	0.036	0.0263	<0.050	1.24	1.46		0.00203	0.00312	0.000072	0.000109	3.27
SW-04	ALS	2024-02-05	WP2402956-004				0.036								
SW-04	ALS	2024-03-03	WP2405262-003	<0.030			0.035								
SW-04	ALS	2024-03-03	WP2405262	<0.050	0.035	0.0286	<0.050	1.26	1.35		0.00212	0.00248	0.0001	0.000142	3.39
SW-04	ALS	2024-04-04	WP2408018	<0.050	0.037	0.0375	<0.050	1.34	1.44		0.00222	0.0029	0.00014	0.000139	3.46
SW-04	ALS	2024-04-04	WP2408018-001				0.037								
SW-04	ALS	2024-05-23	WP2413138	<0.030	<0.030	0.0376	<0.050	1.04	1.04		0.00148	0.00205	0.00009	0.000126	2.45
SW-04	ALS	2024-06-16	WP2415267	<0.030	0.037	0.033	<0.050	0.932	0.996		0.0016	0.0021	0.000111	0.000065	0.581
SW-04	ALS	2024-07-08	WP2417173	<0.030	<0.030	0.0366	<0.050	0.785	0.75		0.00168	0.00177	0.000083	0.000121	1.23
SW-04	ALS	2024-08-04	WP2419020												
SW-04	ALS	2024-08-04	WP2419020	<0.050	0.047	0.0515	<0.050	0.844	0.943		0.00199	0.00248	0.00014	0.000198	1.68
SW-04	ALS	2024-09-04	WP2421413	<0.050	<0.030	0.041	<0.050	0.859	0.9		0.00197	0.00245	0.000139	0.000112	1.81
SW-04	Flett	2024-09-04	TMWATR092924CH1-008												
SW-04	Flett	2024-09-04	MTWATR100124JS1-009												
SW-04	ALS	2024-10-02	WP2423347		0.051	0.0506		0.836	0.868		0.00168	0.00202	0.000158	<0.000050	2.28
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008												
SW-04	Flett	2024-10-02	MTWATR112624JS1-016												
SW-04	ALS	2024-11-02	WP2425500		0.035	0.0303		0.962	0.948		0.00148	0.00174	0.000069	0.000101	1.91
SW-04	Flett	2024-11-02	MTWATR120524JS1-005												
SW-04	Flett	2024-11-02	TMWATR112524CH1-006												
SW-04	ALS	2024-12-01	WP2426900		<0.030	0.026		0.862	0.783		0.00139	0.0017	0.000053	0.000195	1.62
SW-04	Flett	2024-12-01	TMWATR012125CH1-012												
SW-04	Flett	2024-12-01	MTWATR121924JS1-012												
SW-06	ALS	2024-06-05	WP2414533	<0.030	0.072	0.079	0.072	0.289	0.309		0.00092	0.00139	0.00017	0.000085	5.12
SW-07	ALS	2024-06-05	WP2414533	<0.030	<0.030	0.0115	<0.050	0.484	0.461		0.00125	0.00122	0.000106	0.00007	4.74
SW-08	SGS	2022-06-07	CA15258-JUN22	0.009			0.027	0.939	1.16				0.00005	0.0001	1.39

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22	1.38	< 0.00005	< 0.00005	1.2	1.11	57	9	0.0252	0.0236	< 1	< 1	< 2	
SW-04	SGS	2022-11-02	CA15141-NOV22	1.64	< 0.00005	< 0.00005	1.33	1.5	100	8	0.0237	0.0266	< 1	< 1	< 2	
SW-04	SGS	2023-01-17	CA13675-JAN23	2.28	< 0.00005	< 0.00005	1.53	1.78	114	4	0.0287	0.0308	< 1	< 1	< 2	
SW-04	SGS	2023-02-15	CA15347-FEB23	2.7	< 0.00005	< 0.00005	1.7	1.9	54	3	0.0305	0.0327	< 1	< 1	< 2	
SW-04	SGS	2023-03-21	CA15408-MAR23	3.27	< 0.00005	< 0.00005	1.81	1.88	74	5	0.033	0.0348	< 1	< 1	< 2	
SW-04	SGS	2023-03-21	CA15408-MAR23	3.28	< 0.00005	< 0.00005	2.06	1.99	83	5	0.0348	0.03534	< 1	< 1	< 2	
SW-04	SGS	2023-04-19	CA15419-APR23	3.26	< 0.00005	< 0.00005	1.53	1.64	89	7	0.0296	0.0316	< 1	< 1	< 2	
SW-04	ALS	2023-05-14	WP2308112													
SW-04	ALS	2023-05-14	WP2308112	2.74	<0.000010	<0.000010	1.32	1.37	68	11.6	0.0208	0.0227	<0.50	<0.50	0.77	<0.00020
SW-04	ALS	2023-05-14	WP2308112-004													
SW-04	ALS	2023-06-03	WP2310873	2.7	<0.000010	<0.000010	1.45	1.59	71	13.4	0.0254	0.0271	<0.50	0.66	0.87	<0.00020
SW-04	ALS	2023-06-03	WP2310873-002													
SW-04	ALS	2023-07-17	WP2316174-001	5.05	0.000017	0.000096	3.28	3.54	137	11.6	0.0514	0.0513	0.52	0.56	1.13	<0.00020
SW-04	ALS	2023-08-05	WP2318603-003	3.59	<0.000010	0.00003	2.72	2.39	130	8.6	0.0467	0.0449	<0.50	<0.50	0.71	<0.00020
SW-04	ALS	2023-09-04	WP2322079-002	6.44	0.000101	0.000723	12.9	12.3	308	32.8	0.0871	0.108	0.91	0.65	0.96	<0.00020
SW-04	ALS	2023-10-03	WP2325641-001													
SW-04	ALS	2023-10-03	WP2325641													
SW-04	ALS	2023-10-11	WP2326289-001	7.07	<0.000010	0.000036	2.63	2.52	144	6.5	0.0506	0.0558	0.69	0.6	0.99	<0.00020
SW-04	ALS	2023-11-03	WP2328799	2.64	<0.000010	<0.000010	1.61	1.59	62	5.3	0.0245	0.0259	0.68	<0.50	0.64	<0.00020
SW-04	ALS	2023-11-03	WP2328799-002													
SW-04	ALS	2023-12-07	WP2332136	3.2	<0.000010	<0.000010	1.82	1.78	79.8	5.1	0.0315	0.0308	<0.50	<0.50	0.8	<0.00020
SW-04	ALS	2023-12-07	WP2332136-004													
SW-04	ALS	2024-01-12	WP2401043	3.54	<0.000010	<0.000010	1.78	1.93	82.3	3	0.0326	0.0326	0.58	<0.50	0.82	<0.00020
SW-04	ALS	2024-01-12	WP2401043	3.44	<0.000010	<0.000010	1.88	2.12	78.7	3.4	0.0319	0.0343	0.51	0.56	0.99	<0.00020
SW-04	ALS	2024-01-12	WP2401043-006	3.44	<0.000010	<0.000010	1.88	2.12	78.7	3.4	0.0319	0.0343	0.51	0.56	0.99	<0.00020
SW-04	ALS	2024-01-12	WP2401043-005													
SW-04	ALS	2024-02-05	WP2402956	4.32	<0.000010	<0.000010	2.27	2.47	75	11.4	0.0331	0.0387	<0.50	0.78	0.9	<0.00020
SW-04	ALS	2024-02-05	WP2402956-004													
SW-04	ALS	2024-03-03	WP2405262-003													
SW-04	ALS	2024-03-03	WP2405262	4.06	<0.000010	<0.000010	2.05	2.11	64.5	14.6	0.0346	0.037	<0.50	<0.50	0.88	<0.00020
SW-04	ALS	2024-04-04	WP2408018	4.36	<0.000010	<0.000010	2.19	2.39	93.7	9.2	0.0368	0.0375	<0.50	0.54	0.98	<0.00020
SW-04	ALS	2024-04-04	WP2408018-001													
SW-04	ALS	2024-05-23	WP2413138	2.94	<0.000010	<0.000010	1.41	1.38	84.7	7	0.0241	0.0212	0.51	<0.50	0.92	<0.00020
SW-04	ALS	2024-06-16	WP2415267	1.13	<0.000010	<0.000010	1.48	1.51	78.9	10.7	0.0233	0.0243	<0.50	0.51	0.68	<0.00020
SW-04	ALS	2024-07-08	WP2417173	1.31	<0.000010	<0.000010	1.46	1.39	78.2	5.3	0.0232	0.0225	<0.50	<0.50	0.62	<0.00020
SW-04	ALS	2024-08-04	WP2419020													
SW-04	ALS	2024-08-04	WP2419020	2.17	<0.000010	<0.000010	1.48	1.57	73.3	8.7	0.0266	0.0272	0.58	<0.50	0.68	<0.00020
SW-04	ALS	2024-09-04	WP2421413	2.14	<0.000010	0.000016	1.43	1.43	65.5	7.3	0.0273	0.0269	<0.50	<0.50	0.58	<0.00020
SW-04	Flett	2024-09-04	TMWATR092924CH1-008													
SW-04	Flett	2024-09-04	MTWATR100124JS1-009													
SW-04	ALS	2024-10-02	WP2423347	2.74	<0.000010	<0.000010	1.54	1.54	83	4.5	0.0259	0.0255	<0.50	<0.50	0.35	<0.00020
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008													
SW-04	Flett	2024-10-02	MTWATR112624JS1-016													
SW-04	ALS	2024-11-02	WP2425500	2.27	<0.000010	<0.000010	1.68	1.59	50.6	6.4	0.025	0.0266	<0.50	<0.50	0.64	<0.00020
SW-04	Flett	2024-11-02	MTWATR120524JS1-005													
SW-04	Flett	2024-11-02	TMWATR112524CH1-006													
SW-04	ALS	2024-12-01	WP2426900	1.68	<0.000010	<0.000010	1.45	1.25	92.9	2.5	0.0175	0.0238	<0.50	0.52	0.58	<0.00020
SW-04	Flett	2024-12-01	TMWATR012125CH1-012													
SW-04	Flett	2024-12-01	MTWATR121924JS1-012													
SW-06	ALS	2024-06-05	WP2414533	5.5	<0.000010	<0.000010	1.69	1.79	111	61.7	0.0283	0.0296	0.74	0.86	1.15	<0.00020
SW-07	ALS	2024-06-05	WP2414533	4.79	<0.000010	<0.000010	1.96	1.96	135	6.1	0.0245	0.0234	<0.50	<0.50	0.44	<0.00020
SW-08	SGS	2022-06-07	CA15258-JUN22	2.36	< 0.00005	< 0.00005	1.11	1.27	60	9	0.0141	0.0172		< 1	< 2	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22		< 0.000005	0.000007			< 0.00006	< 0.00006	0.00265	0.0129	18	0.00004	0.00004	0.000229
SW-04	SGS	2022-11-02	CA15141-NOV22		< 0.000005	0.000007			< 0.00006	< 0.00006	0.00295	0.0182	19	0.00007	0.00009	0.000245
SW-04	SGS	2023-01-17	CA13675-JAN23		0.00001	0.000009			0.00007	0.00009	0.00378	0.0094	20	0.00003	0.00004	0.000365
SW-04	SGS	2023-02-15	CA15347-FEB23		< 0.000005	< 0.000005			< 0.00006	0.00035	0.00296	0.0101	19	< 0.00002	0.00003	0.000295
SW-04	SGS	2023-03-21	CA15408-MAR23		< 0.000005	0.000005			< 0.00006	0.0001	0.00251	0.0114	20	< 0.00002	< 0.00002	0.000315
SW-04	SGS	2023-03-21	CA15408-MAR23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00239	0.01162	21	< 0.00002	< 0.00002	0.000344
SW-04	SGS	2023-04-19	CA15419-APR23		< 0.000005	0.000006			< 0.00006	< 0.00006	0.00274	0.0138	26	< 0.00002	< 0.00002	0.000239
SW-04	ALS	2023-05-14	WP2308112													
SW-04	ALS	2023-05-14	WP2308112	<0.00020	<0.000010	<0.000010	<0.00010	0.0001	<0.00010	<0.00010	0.00222	0.0126		<0.00010	<0.00010	0.000208
SW-04	ALS	2023-05-14	WP2308112-004													
SW-04	ALS	2023-06-03	WP2310873	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00156	0.0196		<0.00010	<0.00010	0.000212
SW-04	ALS	2023-06-03	WP2310873-002													
SW-04	ALS	2023-07-17	WP2316174-001	<0.00020	<0.000010	0.000011	<0.00010	0.00014	<0.00010	<0.00010	0.00479	0.0301		0.00073	0.00085	0.000543
SW-04	ALS	2023-08-05	WP2318603-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0044	0.0174		0.0003	0.00029	0.000298
SW-04	ALS	2023-09-04	WP2322079-002	<0.00020	<0.000010	0.000018	0.00013	0.00019	<0.00010	<0.00010	0.012	0.0428		0.00621	0.00677	0.000836
SW-04	ALS	2023-10-03	WP2325641-001													
SW-04	ALS	2023-10-03	WP2325641													
SW-04	ALS	2023-10-11	WP2326289-001	<0.00020	<0.000010	<0.000010	<0.00010	0.00011	<0.00010	<0.00010	0.00151	0.0121		0.00017	0.00027	0.000308
SW-04	ALS	2023-11-03	WP2328799	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00104	0.0052		<0.00010	<0.00010	0.000111
SW-04	ALS	2023-11-03	WP2328799-002													
SW-04	ALS	2023-12-07	WP2332136	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00118	0.00746		<0.00010	<0.00010	0.000156
SW-04	ALS	2023-12-07	WP2332136-004													
SW-04	ALS	2024-01-12	WP2401043	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00114	0.00595		<0.00010	<0.00010	0.000152
SW-04	ALS	2024-01-12	WP2401043	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00112	0.00562		<0.00010	<0.00010	0.000153
SW-04	ALS	2024-01-12	WP2401043-006	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00112	0.00562		<0.00010	<0.00010	0.000153
SW-04	ALS	2024-01-12	WP2401043-005													
SW-04	ALS	2024-02-05	WP2402956	<0.00020	<0.000010	<0.000010	<0.00010	0.0001	<0.00010	<0.00010	0.00114	0.0215		<0.00010	<0.00010	0.00018
SW-04	ALS	2024-02-05	WP2402956-004													
SW-04	ALS	2024-03-03	WP2405262-003													
SW-04	ALS	2024-03-03	WP2405262	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00086	0.0102		<0.00010	<0.00010	0.000181
SW-04	ALS	2024-04-04	WP2408018	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00099	0.0149		<0.00010	<0.00010	0.000208
SW-04	ALS	2024-04-04	WP2408018-001													
SW-04	ALS	2024-05-23	WP2413138	<0.00020	<0.000010	<0.000010	0.00011	0.0001	<0.00010	<0.00010	0.00345	0.0143		<0.00010	<0.00010	0.000164
SW-04	ALS	2024-06-16	WP2415267	0.00025	<0.000010	<0.000010	<0.00010	0.0001	<0.00010	0.00013	0.00281	0.0108		<0.00010	<0.00010	0.000179
SW-04	ALS	2024-07-08	WP2417173	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00202	0.00514		<0.00010	<0.00010	0.0002
SW-04	ALS	2024-08-04	WP2419020													
SW-04	ALS	2024-08-04	WP2419020	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00286	0.014		<0.00010	<0.00010	0.000184
SW-04	ALS	2024-09-04	WP2421413	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00164	0.0101		<0.00010	<0.00010	0.000178
SW-04	Flett	2024-09-04	TMWATR092924CH1-008													
SW-04	Flett	2024-09-04	MTWATR100124JS1-009													
SW-04	ALS	2024-10-02	WP2423347	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00188	0.00821		<0.00010	<0.00010	0.000189
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008													
SW-04	Flett	2024-10-02	MTWATR112624JS1-016													
SW-04	ALS	2024-11-02	WP2425500	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00224	0.00798		<0.00010	<0.00010	0.00021
SW-04	Flett	2024-11-02	MTWATR120524JS1-005													
SW-04	Flett	2024-11-02	TMWATR112524CH1-006													
SW-04	ALS	2024-12-01	WP2426900	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00199	0.006		<0.00010	<0.00010	0.000142
SW-04	Flett	2024-12-01	TMWATR012125CH1-012													
SW-04	Flett	2024-12-01	MTWATR121924JS1-012													
SW-06	ALS	2024-06-05	WP2414533	<0.00020	<0.000010	0.000012	0.00032	0.00034	<0.00010	<0.00010	0.00907	0.0204		<0.00010	<0.00010	0.000198
SW-07	ALS	2024-06-05	WP2414533	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00291	0.00381		<0.00010	<0.00010	0.000047
SW-08	SGS	2022-06-07	CA15258-JUN22		< 0.000005	0.00001			< 0.00006	0.00007			17	< 0.00002	0.00002	0.000169

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-04	SGS	2022-10-12	CA15286-OCT22	0.000246	0.00072	0.0012	0.00022	0.00029	0.007	< 0.002	< 0.002	< 0.002
SW-04	SGS	2022-11-02	CA15141-NOV22	0.000294	0.00079	0.00167	0.00024	0.00036	< 0.002	< 0.002	< 0.002	< 0.002
SW-04	SGS	2023-01-17	CA13675-JAN23	0.000388	0.00093	0.00124	0.00025	0.00033	< 0.002	< 0.002	< 0.002	< 0.002
SW-04	SGS	2023-02-15	CA15347-FEB23	0.000311	0.00071	0.00117	0.00025	0.00032	< 0.002	0.003	< 0.002	< 0.002
SW-04	SGS	2023-03-21	CA15408-MAR23	0.000363	0.00066	0.00124	0.00025	0.00034	0.002	0.004	< 0.002	< 0.002
SW-04	SGS	2023-03-21	CA15408-MAR23	0.00036	0.0007	0.00125	0.00026	0.00034	0.005	0.006	< 0.002	< 0.002
SW-04	SGS	2023-04-19	CA15419-APR23	0.000269	0.00061	0.00135	0.00027	0.00038	< 0.002	< 0.002	< 0.002	< 0.002
SW-04	ALS	2023-05-14	WP2308112									
SW-04	ALS	2023-05-14	WP2308112	0.000228	0.0005	0.00118			0.0015	<0.0030	0.00031	0.00031
SW-04	ALS	2023-05-14	WP2308112-004									
SW-04	ALS	2023-06-03	WP2310873	0.00026	0.00086	0.00168			<0.0010	<0.0030	0.00032	0.00042
SW-04	ALS	2023-06-03	WP2310873-002									
SW-04	ALS	2023-07-17	WP2316174-001	0.000517	0.00108	0.00278			<0.0010	<0.0030	0.00038	0.00043
SW-04	ALS	2023-08-05	WP2318603-003	0.000288	0.00096	0.00155			0.0011	<0.0030	0.00035	0.00034
SW-04	ALS	2023-09-04	WP2322079-002	0.000847	0.0013	0.00363			0.0053	0.0101	0.00055	0.00049
SW-04	ALS	2023-10-03	WP2325641-001									
SW-04	ALS	2023-10-03	WP2325641									
SW-04	ALS	2023-10-11	WP2326289-001	0.000326	0.00058	0.00115			<0.0010	<0.0030	0.0004	0.00052
SW-04	ALS	2023-11-03	WP2328799	0.000121	<0.00050	0.00089			<0.0010	0.0031	<0.00030	<0.00020
SW-04	ALS	2023-11-03	WP2328799-002									
SW-04	ALS	2023-12-07	WP2332136	0.000161	<0.00050	0.00097			0.0011	<0.0030	<0.00030	0.0002
SW-04	ALS	2023-12-07	WP2332136-004									
SW-04	ALS	2024-01-12	WP2401043	0.00017	<0.00050	0.00081			<0.0010	0.004	<0.00030	0.00024
SW-04	ALS	2024-01-12	WP2401043	0.000166	<0.00050	0.00085			0.0013	<0.0030	<0.00030	0.00034
SW-04	ALS	2024-01-12	WP2401043-006	0.000166	<0.00050	0.00085			0.0013	<0.0030	<0.00030	0.00034
SW-04	ALS	2024-01-12	WP2401043-005									
SW-04	ALS	2024-02-05	WP2402956	0.000199	<0.00050	0.00148			<0.0010	<0.0030	<0.00030	0.00034
SW-04	ALS	2024-02-05	WP2402956-004									
SW-04	ALS	2024-03-03	WP2405262-003									
SW-04	ALS	2024-03-03	WP2405262	0.000188	<0.00050	0.00104			<0.0010	0.004	<0.00030	0.00027
SW-04	ALS	2024-04-04	WP2408018	0.000242	<0.00050	0.00113			0.0014	<0.0030	<0.00030	0.00027
SW-04	ALS	2024-04-04	WP2408018-001									
SW-04	ALS	2024-05-23	WP2413138	0.00017	0.00065	0.00124			<0.0010	<0.0030	0.00046	0.00044
SW-04	ALS	2024-06-16	WP2415267	0.000194	0.00074	0.00119			<0.0010	<0.0030	0.00047	0.00046
SW-04	ALS	2024-07-08	WP2417173	0.000191	0.00071	0.00108			0.0011	<0.0030	0.00042	0.00038
SW-04	ALS	2024-08-04	WP2419020									
SW-04	ALS	2024-08-04	WP2419020	0.000202	0.00084	0.0014			0.0013	<0.0030	0.00042	0.00042
SW-04	ALS	2024-09-04	WP2421413	0.000193	0.00072	0.00121			<0.0010	<0.0030	0.00039	0.0004
SW-04	Flett	2024-09-04	TMWATR092924CH1-008									
SW-04	Flett	2024-09-04	MTWATR100124JS1-009									
SW-04	ALS	2024-10-02	WP2423347	0.000198	0.00071	0.00111			<0.0010	<0.0030	0.00033	0.00035
SW-04	Flett	2024-10-02	TMWATR102524ZB2-008									
SW-04	Flett	2024-10-02	MTWATR112624JS1-016									
SW-04	ALS	2024-11-02	WP2425500	0.000231	0.00066	0.00108			<0.0010	<0.0030	0.00031	0.00043
SW-04	Flett	2024-11-02	MTWATR120524JS1-005									
SW-04	Flett	2024-11-02	TMWATR112524CH1-006									
SW-04	ALS	2024-12-01	WP2426900	0.000213	0.00069	0.00091			<0.0010	<0.0030	<0.00030	0.00028
SW-04	Flett	2024-12-01	TMWATR012125CH1-012									
SW-04	Flett	2024-12-01	MTWATR121924JS1-012									
SW-06	ALS	2024-06-05	WP2414533	0.000245	0.00135	0.0026			0.0034	0.0041	0.0009	0.0011
SW-07	ALS	2024-06-05	WP2414533	0.000055	<0.00050	0.00066			0.0019	<0.0030	0.0004	0.00039
SW-08	SGS	2022-06-07	CA15258-JUN22	0.000219	0.00078	0.00204	0.00026	0.00041	< 0.002	< 0.002	< 0.002	< 0.002

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007											
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006											
SW-08	Flett	2022-07-25	MTWATR092022JS1-006											
SW-08	SGS	2022-07-25	CA15458-JUL22	6.18	7.73	18.4	< 2					35		2.08
SW-08	Flett	2022-08-25	MTWATR092022JS1-004											
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004											
SW-08	Flett	2022-08-25	MTWATR092022JS1-003											
SW-08	SGS	2022-09-19	CA12949-SEP22	6.93	7.48	15.2	< 2					43		0.53
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006											
SW-08	Flett	2022-10-12	MTWATR110722JS1-006											
SW-08	SGS	2022-10-12	CA15286-OCT22	6.56	7.49	8	< 2					40		0.497
SW-08	SGS	2022-10-12	CA15286-OCT22	6.56	7.6	8	< 2					39		0.478
SW-08	SGS	2022-10-20	CA12874-OCT22	6.61	7.69	0	< 2					83		1.49
SW-08	SGS	2022-11-07	CA15216-NOV22	6.66	7.64	1.8	< 2					37		0.037
SW-08	SGS	2023-02-09	CA15284-FEB23	7.41	7.49		< 2					46	0.075	0.324
SW-08	SGS	2023-03-28	CA15003-APR23	6.9	7.29	0.84	< 2					51	0.07	0.233
SW-08	SGS	2023-04-11	CA13551-APR23	6.91	7.29	1.67	< 2					45	0.101	1.64
SW-08	ALS	2023-05-14	WP2308112											
SW-08	ALS	2023-05-14	WP2308112	7.5	7.58	12	8.6	34.1	<1.0	<1.0	<1.0	34.1	0.0933	0.369
SW-08	ALS	2023-05-14	WP2308112-005											
SW-08	Flett	2023-05-19	MTWATR060823JS1-003											
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002											
SW-08	Flett	2023-05-19	MTWATR060823JS1-002											
SW-08	Flett	2023-06-05	MTWATR062123JS3-005											
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005											
SW-08	ALS	2023-06-05	WP2310937-004	7.59	7.57	22.9	4.5	41.7	<1.0	<1.0	<1.0	41.7	0.0538	0.886
SW-08	ALS	2023-07-16	WP2316171	7.49	7.89	15.9	<2.0	109	<1.0	<1.0	<1.0	109	0.133	0.388
SW-08	Flett	2023-07-16	MTWATR080223JS1-004											
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003											
SW-08	Flett	2023-07-16	MTWATR080223JS1-003											
SW-08	ALS	2023-07-16	WP2316171-009											
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005											
SW-08	Flett	2023-08-05	MTWATR082323JS1-006											
SW-08	ALS	2023-08-05	WP2318603-005	7.2	7.55	19.1	3.4	84.7	<1.0	<1.0	<1.0	84.7	0.122	0.307
SW-08	ALS	2023-08-05	WP2318603-006	7.2	7.57	19.1	4.1	84.9	<1.0	<1.0	<1.0	84.9	0.114	0.315
SW-08	Flett	2023-09-04	MTWATR091323JS2-004											
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003											
SW-08	Flett	2023-09-04	MTWATR091323JS2-003											
SW-08	ALS	2023-09-04	WP2322079-003	6.8	7.68	15.8	2.3	123	<1.0	<1.0	<1.0	123	0.0347	0.0723
SW-08	Flett	2023-10-11	MTWATR111923JS1-004											
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003											
SW-08	Flett	2023-10-11	MTWATR111923JS1-003											
SW-08	ALS	2023-10-11	WP2326289-002	6.96	7.62	7.4	6.7	85.5	<1.0	<1.0	<1.0	85.5	0.0709	4.14
SW-08	ALS	2023-11-04	WP2328799	7.52	7.6	0.1	2	38.8	<1.0	<1.0	<1.0	38.8	0.0269	0.241
SW-08	ALS	2023-11-04	WP2328799	7.52	7.61	0.1	3	38.7	<1.0	<1.0	<1.0	38.7	0.0282	0.265
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006											
SW-08	Flett	2023-11-04	MTWATR112023JS1-006											
SW-08	ALS	2023-11-04	WP2328799-009											
SW-08	ALS	2023-11-04	WP2328799-004											
SW-08	ALS	2023-12-07	WP2332136	8.24	7.55	0.2	2.5	49.7	<1.0	<1.0	<1.0	49.7	0.0238	0.185
SW-08	ALS	2023-12-07	WP2332136	7.85	7.54	0.2	2.5	49.1	<1.0	<1.0	<1.0	49.1	0.0334	0.184
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007												
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006												
SW-08	Flett	2022-07-25	MTWATR092022JS1-006												
SW-08	SGS	2022-07-25	CA15458-JUL22	0.058			< 0.1	< 0.0009	< 0.0009	0.0029	0.0035	0.0153	0.0225	0.00005	0.000073
SW-08	Flett	2022-08-25	MTWATR092022JS1-004												
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004												
SW-08	Flett	2022-08-25	MTWATR092022JS1-003												
SW-08	SGS	2022-09-19	CA12949-SEP22	0.05			< 0.1	< 0.0009	< 0.0009	0.002	0.0027	0.0107	0.0124	0.00001	0.000021
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006												
SW-08	Flett	2022-10-12	MTWATR110722JS1-006												
SW-08	SGS	2022-10-12	CA15286-OCT22	0.036			< 0.1	< 0.0009	< 0.0009	0.0015	0.0019	0.0115	0.0164	0.00002	0.000024
SW-08	SGS	2022-10-12	CA15286-OCT22	0.06			< 0.1	< 0.0009	< 0.0009	0.0015	0.0019	0.0113	0.0157	0.00002	0.000021
SW-08	SGS	2022-10-20	CA12874-OCT22	0.055			< 0.1	< 0.0009	< 0.0009	0.0018	0.002	0.0208	0.0129	0.000027	0.000021
SW-08	SGS	2022-11-07	CA15216-NOV22	0.037			< 0.1	< 0.0009	< 0.0009	0.0016	0.0013	0.0103	0.00995	0.00004	0.00004
SW-08	SGS	2023-02-09	CA15284-FEB23	0.057			< 0.1	< 0.0009	< 0.0009	0.0019	0.0024	0.0126	0.016	0.000011	0.000019
SW-08	SGS	2023-03-28	CA15003-APR23	0.063			< 0.1	< 0.0009	< 0.0009	0.0022	0.0029	0.0137	0.0153	0.000008	0.000032
SW-08	SGS	2023-04-11	CA13551-APR23	0.046			< 0.1	< 0.0009	< 0.0009	0.0015	0.0021	0.0109	0.0231	0.000011	0.000044
SW-08	ALS	2023-05-14	WP2308112												
SW-08	ALS	2023-05-14	WP2308112			<0.0010	0.06	<0.00010	<0.00010	0.00153	0.00176	0.00878	0.0112	<0.000020	<0.000020
SW-08	ALS	2023-05-14	WP2308112-005		0.06										
SW-08	Flett	2023-05-19	MTWATR060823JS1-003												
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002												
SW-08	Flett	2023-05-19	MTWATR060823JS1-002												
SW-08	Flett	2023-06-05	MTWATR062123JS3-005												
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005												
SW-08	ALS	2023-06-05	WP2310937-004		0.061	0.0011		<0.00010	<0.00010	0.00224	0.00261	0.0118	0.018	<0.000020	0.000042
SW-08	ALS	2023-07-16	WP2316171			<0.0010	0.021	<0.00010	<0.00010	0.00358	0.00357	0.0332	0.037	<0.000020	<0.000020
SW-08	Flett	2023-07-16	MTWATR080223JS1-004												
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003												
SW-08	Flett	2023-07-16	MTWATR080223JS1-003												
SW-08	ALS	2023-07-16	WP2316171-009		0.021										
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005												
SW-08	Flett	2023-08-05	MTWATR082323JS1-006												
SW-08	ALS	2023-08-05	WP2318603-005		0.027	<0.0010		<0.00010	<0.00010	0.00318	0.00311	0.0365	0.0361	<0.000020	<0.000020
SW-08	ALS	2023-08-05	WP2318603-006		0.028	<0.0010		<0.00010	<0.00010	0.00308	0.0031	0.0375	0.0354	<0.000020	<0.000020
SW-08	Flett	2023-09-04	MTWATR091323JS2-004												
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003												
SW-08	Flett	2023-09-04	MTWATR091323JS2-003												
SW-08	ALS	2023-09-04	WP2322079-003		0.014	<0.0010		<0.00010	0.00018	0.00521	0.0052	0.0283	0.0267	<0.000020	<0.000020
SW-08	Flett	2023-10-11	MTWATR111923JS1-004												
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003												
SW-08	Flett	2023-10-11	MTWATR111923JS1-003												
SW-08	ALS	2023-10-11	WP2326289-002		0.0327	<0.0010		<0.00010	0.00013	0.00232	0.00384	0.0264	0.0628	<0.000020	0.000117
SW-08	ALS	2023-11-04	WP2328799			<0.0010	0.0077	<0.00010	<0.00010	0.00136	0.00169	0.0104	0.013	<0.000020	<0.000020
SW-08	ALS	2023-11-04	WP2328799			<0.0010	0.0116	<0.00010	<0.00010	0.0014	0.00173	0.01	0.0127	<0.000020	<0.000020
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006												
SW-08	Flett	2023-11-04	MTWATR112023JS1-006												
SW-08	ALS	2023-11-04	WP2328799-009		0.0077										
SW-08	ALS	2023-11-04	WP2328799-004		0.0116										
SW-08	ALS	2023-12-07	WP2332136			<0.0010	0.0248	<0.00010	<0.00010	0.0014	0.00151	0.0129	0.0155	<0.000020	<0.000020
SW-08	ALS	2023-12-07	WP2332136			<0.0010	0.03	<0.00010	<0.00010	0.00143	0.00154	0.0133	0.0157	<0.000020	<0.000020
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007													
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006													
SW-08	Flett	2022-07-25	MTWATR092022JS1-006													
SW-08	SGS	2022-07-25	CA15458-JUL22	< 0.00001	0.00002	0.007	0.007	0.00001	0.000013	8.95	9.59	20			50	1
SW-08	Flett	2022-08-25	MTWATR092022JS1-004													
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004													
SW-08	Flett	2022-08-25	MTWATR092022JS1-003													
SW-08	SGS	2022-09-19	CA12949-SEP22	< 0.00001	< 0.00001	0.011	0.012	0.000007	0.000018	11.1	13.1	20			50	< 1
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006													
SW-08	Flett	2022-10-12	MTWATR110722JS1-006													
SW-08	SGS	2022-10-12	CA15286-OCT22	< 0.00001	< 0.00001	0.005	0.007	< 0.000004	0.000005	10.4	10.7	19			44	< 1
SW-08	SGS	2022-10-12	CA15286-OCT22	< 0.00001	< 0.00001	0.006	0.006	0.00001	0.00001	10.4	10.8	18			46	< 1
SW-08	SGS	2022-10-20	CA12874-OCT22	0.00005	< 0.00001	0.027	0.014	0.000032	0.000029	20.6	23.9	22			52	11
SW-08	SGS	2022-11-07	CA15216-NOV22	< 0.00001	< 0.00001	0.004	0.003	0.000007	0.000021	11.4	9.85	16			47	< 1
SW-08	SGS	2023-02-09	CA15284-FEB23	< 0.00001	< 0.00001	0.005	0.005	0.000026	0.000038	14.2	14.9	6			48	< 1
SW-08	SGS	2023-03-28	CA15003-APR23	< 0.00001	< 0.00001	0.006	0.011	< 0.000004	0.000015	18.1	17.2	19			53	5
SW-08	SGS	2023-04-11	CA13551-APR23	< 0.00001	0.00001	0.009	0.009	0.000011	0.000018	14.6	14.6	16			24	4
SW-08	ALS	2023-05-14	WP2308112													
SW-08	ALS	2023-05-14	WP2308112	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10	10.4	20.6	<0.000010	0.000037		0.29
SW-08	ALS	2023-05-14	WP2308112-005													
SW-08	Flett	2023-05-19	MTWATR060823JS1-003													
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002													
SW-08	Flett	2023-05-19	MTWATR060823JS1-002													
SW-08	Flett	2023-06-05	MTWATR062123JS3-005													
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005													
SW-08	ALS	2023-06-05	WP2310937-004	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000094	12.1	13.3	18.3	<0.000010	0.000103		0.53
SW-08	ALS	2023-07-16	WP2316171	<0.000050	<0.000050	0.01	<0.010	<0.0000050	0.0000086	30	31.1	19.3	<0.000010	0.00002		2.29
SW-08	Flett	2023-07-16	MTWATR080223JS1-004													
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003													
SW-08	Flett	2023-07-16	MTWATR080223JS1-003													
SW-08	ALS	2023-07-16	WP2316171-009													
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005													
SW-08	Flett	2023-08-05	MTWATR082323JS1-006													
SW-08	ALS	2023-08-05	WP2318603-005	<0.000050	<0.000050	<0.010	<0.010	0.0000075	0.0000078	25.9	25.8	20.2	<0.000010	0.000021		0.96
SW-08	ALS	2023-08-05	WP2318603-006	<0.000050	<0.000050	<0.010	<0.010	0.0000059	0.0000082	25.2	25.7	21.1	<0.000010	0.00002		0.94
SW-08	Flett	2023-09-04	MTWATR091323JS2-004													
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003													
SW-08	Flett	2023-09-04	MTWATR091323JS2-003													
SW-08	ALS	2023-09-04	WP2322079-003	<0.000050	<0.000050	<0.010	0.01	0.0000063	0.0000092	31.2	36.6	24.3	<0.000010	0.000014		4.6
SW-08	Flett	2023-10-11	MTWATR111923JS1-004													
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003													
SW-08	Flett	2023-10-11	MTWATR111923JS1-003													
SW-08	ALS	2023-10-11	WP2326289-002	<0.000050	<0.000050	0.011	<0.010	0.0000058	0.0000245	24.5	25.6	26.5	<0.000010	0.000533		2.63
SW-08	ALS	2023-11-04	WP2328799	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000057	10.6	11	16.3	<0.000010	0.000028		0.28
SW-08	ALS	2023-11-04	WP2328799	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000072	11	11	13.6	<0.000010	0.00003		0.27
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006													
SW-08	Flett	2023-11-04	MTWATR112023JS1-006													
SW-08	ALS	2023-11-04	WP2328799-009													
SW-08	ALS	2023-11-04	WP2328799-004													
SW-08	ALS	2023-12-07	WP2332136	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000064	14	14.2	16.7	<0.000010	0.000018		0.43
SW-08	ALS	2023-12-07	WP2332136	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	14	14.5	16.1	<0.000010	0.000018		0.48
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007													
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006													
SW-08	Flett	2022-07-25	MTWATR092022JS1-006													
SW-08	SGS	2022-07-25	CA15458-JUL22	0.0018	0.00369	0.000453	0.00077	60	0.0019	0.0031			< 0.01			< 0.06
SW-08	Flett	2022-08-25	MTWATR092022JS1-004													
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004													
SW-08	Flett	2022-08-25	MTWATR092022JS1-003													
SW-08	SGS	2022-09-19	CA12949-SEP22	0.00044	0.00191	0.000071	0.000083	77	0.0011	0.0015			< 0.01			0.07
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006													
SW-08	Flett	2022-10-12	MTWATR110722JS1-006													
SW-08	SGS	2022-10-12	CA15286-OCT22	0.00033	0.00109	0.000035	0.000249	76	0.001	0.0013			< 0.01			0.08
SW-08	SGS	2022-10-12	CA15286-OCT22	0.00035	0.00107	0.000043	0.000242	74	0.001	0.0013			< 0.01			0.09
SW-08	SGS	2022-10-20	CA12874-OCT22	0.00112	0.0003	0.000256	0.000073	200	0.0038	0.0016	< 0.005		< 0.01			0.13
SW-08	SGS	2022-11-07	CA15216-NOV22	0.00046	0.00039	0.000112	0.000097	76	0.0012	0.001	< 0.005		< 0.01	< 0.01		< 0.06
SW-08	SGS	2023-02-09	CA15284-FEB23	0.00048	0.00088	0.000061	0.000226	84	0.0013	0.0017	< 0.005		< 0.01	< 0.01	0.4	0.08
SW-08	SGS	2023-03-28	CA15003-APR23	0.00091	0.00122	0.000116	0.00024	99	0.0018	0.0014	< 0.005		< 0.01			0.09
SW-08	SGS	2023-04-11	CA13551-APR23	0.00042	0.003	0.000083	0.000644	96	0.0015	0.0028	< 0.005		< 0.01			< 0.06
SW-08	ALS	2023-05-14	WP2308112	0.00037	0.00086											
SW-08	ALS	2023-05-14	WP2308112	<0.00050	0.00086	<0.00010	0.00022	75.6	0.00086	0.00114	<0.0010	<0.0010		0.0011		
SW-08	ALS	2023-05-14	WP2308112-005	0.00037												
SW-08	Flett	2023-05-19	MTWATR060823JS1-003													
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002													
SW-08	Flett	2023-05-19	MTWATR060823JS1-002													
SW-08	Flett	2023-06-05	MTWATR062123JS3-005													
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005													
SW-08	ALS	2023-06-05	WP2310937-004	0.00035	0.00183	0.00013	0.00054	88.8	0.00111	0.00182	<0.0010	<0.0010		<0.0010		
SW-08	ALS	2023-07-16	WP2316171	0.00036	0.00066	0.0002	0.00026	212	0.00165	0.00153	0.0018	0.002		0.0018		
SW-08	Flett	2023-07-16	MTWATR080223JS1-004													
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003													
SW-08	Flett	2023-07-16	MTWATR080223JS1-003													
SW-08	ALS	2023-07-16	WP2316171-009													
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005													
SW-08	Flett	2023-08-05	MTWATR082323JS1-006													
SW-08	ALS	2023-08-05	WP2318603-005	0.00037	0.00052	0.00017	0.00021	168	0.00148	0.00136	0.0014	<0.0010		0.0012		
SW-08	ALS	2023-08-05	WP2318603-006	0.00036	0.00057	0.00018	0.00021	168	0.00123	0.00139	0.0017	<0.0010		0.0012		
SW-08	Flett	2023-09-04	MTWATR091323JS2-004													
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003													
SW-08	Flett	2023-09-04	MTWATR091323JS2-003													
SW-08	ALS	2023-09-04	WP2322079-003	0.00038	0.00049	0.00035	0.00036	245	0.00093	0.00112	<0.0010	0.001		<0.0010		
SW-08	Flett	2023-10-11	MTWATR111923JS1-004													
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003													
SW-08	Flett	2023-10-11	MTWATR111923JS1-003													
SW-08	ALS	2023-10-11	WP2326289-002	0.00063	0.00817	0.00021	0.00173	181	0.00182	0.00656	0.0013	0.0017		0.0012		
SW-08	ALS	2023-11-04	WP2328799	0.00011	0.00047	<0.00010	0.00018	80.9	0.00114	0.00083	<0.0010	<0.0010		<0.0010		
SW-08	ALS	2023-11-04	WP2328799	0.00014	0.00051	<0.00010	0.0002	80.9	0.00065	0.00089	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006													
SW-08	Flett	2023-11-04	MTWATR112023JS1-006													
SW-08	ALS	2023-11-04	WP2328799-009													
SW-08	ALS	2023-11-04	WP2328799-004													
SW-08	ALS	2023-12-07	WP2332136	0.00018	0.00046	<0.00010	0.00015	103	0.00068	0.00085	<0.0010	<0.0010		<0.0010		
SW-08	ALS	2023-12-07	WP2332136	0.00017	0.00047	<0.00010	0.00015	103	0.00068	0.00087	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007												
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006												
SW-08	Flett	2022-07-25	MTWATR092022JS1-006												
SW-08	SGS	2022-07-25	CA15458-JUL22	34.6	37.9	1.1	2.23	0.00041	0.00064	0.0027	0.0036	2.99	3.38	0.0411	0.0513
SW-08	Flett	2022-08-25	MTWATR092022JS1-004												
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004												
SW-08	Flett	2022-08-25	MTWATR092022JS1-003												
SW-08	SGS	2022-09-19	CA12949-SEP22	40.3	47.8	0.346	1.01	0.0002	0.00044			3.07	3.66	0.00937	0.0088
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006												
SW-08	Flett	2022-10-12	MTWATR110722JS1-006												
SW-08	SGS	2022-10-12	CA15286-OCT22	37.4	38.5	0.299	0.841	0.00017	0.00039			2.73	2.85	0.00161	0.0255
SW-08	SGS	2022-10-12	CA15286-OCT22	36.9	38.7	0.347	0.826	0.00018	0.00035			2.64	2.87	0.00213	0.0255
SW-08	SGS	2022-10-20	CA12874-OCT22	74.7	87.7	0.309	0.208	0.00135	0.00014			5.66	6.81	0.017	0.0166
SW-08	SGS	2022-11-07	CA15216-NOV22	39.7	33.9	0.281	0.252	0.00009	0.00009			2.75	2.25	0.0169	0.0147
SW-08	SGS	2023-02-09	CA15284-FEB23	51.4	54.5	0.517	1.03	0.00015	0.00027			3.84	4.17	0.00977	0.0338
SW-08	SGS	2023-03-28	CA15003-APR23	65	62	0.739	1.18	0.00015	0.00025			4.78	4.6	0.00574	0.0616
SW-08	SGS	2023-04-11	CA13551-APR23	54.5	56	0.438	2.02	0.00047	0.00073			4.39	4.76	0.00488	0.0673
SW-08	ALS	2023-05-14	WP2308112												
SW-08	ALS	2023-05-14	WP2308112	37.6	38.9	0.366	0.749	0.000069	0.000168	0.0015	0.0018	3.06	3.14	0.0161	0.0277
SW-08	ALS	2023-05-14	WP2308112-005												
SW-08	Flett	2023-05-19	MTWATR060823JS1-003												
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002												
SW-08	Flett	2023-05-19	MTWATR060823JS1-002												
SW-08	Flett	2023-06-05	MTWATR062123JS3-005												
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005												
SW-08	ALS	2023-06-05	WP2310937-004	44.8	51.1	0.364	1.39	0.000116	0.000441	0.0019	0.0037	3.54	4.34	0.0595	0.0786
SW-08	ALS	2023-07-16	WP2316171	107	112	0.536	0.85	0.000209	0.000297	0.0036	0.0046	7.9	8.33	0.193	0.222
SW-08	Flett	2023-07-16	MTWATR080223JS1-004												
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003												
SW-08	Flett	2023-07-16	MTWATR080223JS1-003												
SW-08	ALS	2023-07-16	WP2316171-009												
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005												
SW-08	Flett	2023-08-05	MTWATR082323JS1-006												
SW-08	ALS	2023-08-05	WP2318603-005	89.4	88.2	0.476	0.641	0.000212	0.000188	0.0029	0.0032	6.01	5.77	0.114	0.123
SW-08	ALS	2023-08-05	WP2318603-006	88.5	88.5	0.479	0.63	0.00012	0.000194	0.0028	0.0031	6.22	5.9	0.122	0.121
SW-08	Flett	2023-09-04	MTWATR091323JS2-004												
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003												
SW-08	Flett	2023-09-04	MTWATR091323JS2-003												
SW-08	ALS	2023-09-04	WP2322079-003	114	131	0.89	1	0.000141	0.000169	0.004	0.0045	8.9	9.54	0.311	0.368
SW-08	Flett	2023-10-11	MTWATR111923JS1-004												
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003												
SW-08	Flett	2023-10-11	MTWATR111923JS1-003												
SW-08	ALS	2023-10-11	WP2326289-002	89.9	95.4	0.253	5.3	<0.000050	0.00183	0.0026	0.0058	6.98	7.65	0.0502	0.1
SW-08	ALS	2023-11-04	WP2328799	39.9	41.6	0.155	0.419	0.000059	0.000136	0.0012	0.0014	3.27	3.42	0.0128	0.0175
SW-08	ALS	2023-11-04	WP2328799	41	41.9	0.157	0.425	0.000064	0.000144	0.0012	0.0018	3.29	3.5	0.013	0.0179
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006												
SW-08	Flett	2023-11-04	MTWATR112023JS1-006												
SW-08	ALS	2023-11-04	WP2328799-009												
SW-08	ALS	2023-11-04	WP2328799-004												
SW-08	ALS	2023-12-07	WP2332136	51.8	52.1	0.161	0.386	<0.000050	0.000114	0.0017	0.0013	4.1	4.05	0.0161	0.0184
SW-08	ALS	2023-12-07	WP2332136	52.9	53.3	0.184	0.389	0.000058	0.000118	0.0017	0.0015	4.36	4.16	0.0172	0.0194
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007				4.18								
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006				4.22								
SW-08	Flett	2022-07-25	MTWATR092022JS1-006		0.115										
SW-08	SGS	2022-07-25	CA15458-JUL22	< 0.00001		< 0.00001		0.00014	0.00028	0.0015	0.0025	0.08	0.08	< 0.03	
SW-08	Flett	2022-08-25	MTWATR092022JS1-004		0.103										
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004				2.72								
SW-08	Flett	2022-08-25	MTWATR092022JS1-003		0.102										
SW-08	SGS	2022-09-19	CA12949-SEP22			< 0.00001		0.00031	0.00039	0.0007	0.001	0.11	0.11	< 0.03	
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006				2.06								
SW-08	Flett	2022-10-12	MTWATR110722JS1-006		0.061										
SW-08	SGS	2022-10-12	CA15286-OCT22			< 0.00001		0.00026	0.00027	0.0006	0.0011	0.08	0.08	< 0.03	
SW-08	SGS	2022-10-12	CA15286-OCT22			< 0.00001		0.00023	0.00026	0.0006	0.001	0.08	0.08	< 0.03	
SW-08	SGS	2022-10-20	CA12874-OCT22	< 0.00001		< 0.00001		0.00086	0.00096	0.0067	0.0012	< 0.06	< 0.06	< 0.03	
SW-08	SGS	2022-11-07	CA15216-NOV22	< 0.00001		< 0.00001		0.00021	0.00025	0.001	0.001	0.07	0.07	< 0.03	
SW-08	SGS	2023-02-09	CA15284-FEB23	< 0.00001		< 0.00001		0.00027	0.00031	0.0006	0.0011	0.17	0.17	< 0.03	
SW-08	SGS	2023-03-28	CA15003-APR23	< 0.00001		< 0.00001		0.00039	0.00036	0.0011	0.0013	0.23	0.23	< 0.03	
SW-08	SGS	2023-04-11	CA13551-APR23	< 0.00001		< 0.00001		0.00026	0.00025	0.0006	0.0018	0.36	0.36	< 0.03	
SW-08	ALS	2023-05-14	WP2308112												
SW-08	ALS	2023-05-14	WP2308112	<0.0000050		<0.0000050		0.000169	0.00018	0.00058	0.0009	0.089	0.089	<0.0010	
SW-08	ALS	2023-05-14	WP2308112-005												
SW-08	Flett	2023-05-19	MTWATR060823JS1-003		0.101										
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002				3.9								
SW-08	Flett	2023-05-19	MTWATR060823JS1-002		0.102										
SW-08	Flett	2023-06-05	MTWATR062123JS3-005		0.19										
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005				3.75								
SW-08	ALS	2023-06-05	WP2310937-004	<0.0000050		<0.0000050		0.000262	0.000247	0.00076	0.00179	0.0612	0.0645	0.0033	
SW-08	ALS	2023-07-16	WP2316171	<0.0000050		<0.0000050		0.000754	0.000765	0.00111	0.00123	<0.0050	<0.0051	<0.0010	
SW-08	Flett	2023-07-16	MTWATR080223JS1-004		0.265										
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003				2.33								
SW-08	Flett	2023-07-16	MTWATR080223JS1-003		0.27										
SW-08	ALS	2023-07-16	WP2316171-009												
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005				2.73								
SW-08	Flett	2023-08-05	MTWATR082323JS1-006		0.437										
SW-08	ALS	2023-08-05	WP2318603-005	<0.0000050		<0.0000050		0.000377	0.000401	0.00113	0.00118	<0.0050	<0.0051	<0.0010	
SW-08	ALS	2023-08-05	WP2318603-006	<0.0000050		<0.0000050		0.000363	0.000403	0.0011	0.00121	<0.0050	<0.0051	0.0015	
SW-08	Flett	2023-09-04	MTWATR091323JS2-004		0.73										
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003				3.02								
SW-08	Flett	2023-09-04	MTWATR091323JS2-003		0.678										
SW-08	ALS	2023-09-04	WP2322079-003	<0.0000050		<0.0000050		0.000687	0.000748	0.00143	0.00152	<0.0050	<0.0051	<0.0010	
SW-08	Flett	2023-10-11	MTWATR111923JS1-004		0.593										
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003				10.7								
SW-08	Flett	2023-10-11	MTWATR111923JS1-003		0.592										
SW-08	ALS	2023-10-11	WP2326289-002	<0.0000050		0.0000095		0.000444	0.000563	0.00169	0.00626	0.322	0.336	0.0135	
SW-08	ALS	2023-11-04	WP2328799	<0.0000050		<0.0000050		0.000206	0.000219	<0.00050	0.00069	0.0127	0.0127	<0.0010	
SW-08	ALS	2023-11-04	WP2328799	<0.0000050		<0.0000050		0.000239	0.000234	<0.00050	0.00071	0.0133	0.0133	<0.0010	
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006				2.11								
SW-08	Flett	2023-11-04	MTWATR112023JS1-006		0.087										
SW-08	ALS	2023-11-04	WP2328799-009												
SW-08	ALS	2023-11-04	WP2328799-004												
SW-08	ALS	2023-12-07	WP2332136	<0.0000050		<0.0000050		0.000241	0.000229	<0.00050	0.0007	0.0531	0.0554	0.0023	
SW-08	ALS	2023-12-07	WP2332136	<0.0000050		<0.0000050		0.000229	0.000235	0.00054	0.00071	0.0549	0.0572	0.0023	
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002				1.06								

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007												
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006												
SW-08	Flett	2022-07-25	MTWATR092022JS1-006												
SW-08	SGS	2022-07-25	CA15458-JUL22	0.025			0.05	0.981	1.34				0.00012	0.00014	2.27
SW-08	Flett	2022-08-25	MTWATR092022JS1-004												
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004												
SW-08	Flett	2022-08-25	MTWATR092022JS1-003												
SW-08	SGS	2022-09-19	CA12949-SEP22	0.017			0.034	0.971	1.14				0.00013	0.00012	1.13
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006												
SW-08	Flett	2022-10-12	MTWATR110722JS1-006												
SW-08	SGS	2022-10-12	CA15286-OCT22	0.011			0.032	0.893	1.02				0.00008	0.00017	0.86
SW-08	SGS	2022-10-12	CA15286-OCT22	0.014			0.032	0.895	1.02				0.00008	0.0001	0.91
SW-08	SGS	2022-10-20	CA12874-OCT22	0.035			0.004	1.42	1.67				0.0003	0.00035	4.4
SW-08	SGS	2022-11-07	CA15216-NOV22	0.015			0.016	0.958	0.811	---			0.00031	0.00059	0.68
SW-08	SGS	2023-02-09	CA15284-FEB23	0.028			0.05	1.15	1.25				0.00008	0.00016	2.3
SW-08	SGS	2023-03-28	CA15003-APR23	0.046			0.049	1.41	1.31				< 0.00004	0.00097	2.92
SW-08	SGS	2023-04-11	CA13551-APR23	0.023			0.062	1.58	1.9				0.00011	< 0.00004	2.72
SW-08	ALS	2023-05-14	WP2308112	<0.030											
SW-08	ALS	2023-05-14	WP2308112	<0.050	0.035	0.0341	<0.050	0.947	1.06		0.00157	0.00209	0.000072	0.000084	2.33
SW-08	ALS	2023-05-14	WP2308112-005	<0.030			0.035								
SW-08	Flett	2023-05-19	MTWATR060823JS1-003												
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002												
SW-08	Flett	2023-05-19	MTWATR060823JS1-002												
SW-08	Flett	2023-06-05	MTWATR062123JS3-005												
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005												
SW-08	ALS	2023-06-05	WP2310937-004	<0.030		0.0547	0.059	1.18	1.32		0.00201	0.0037	0.000125	0.000129	2.34
SW-08	ALS	2023-07-16	WP2316171	<0.030	0.066	0.07	0.066	2.06	2.19		0.00253	0.00292	0.000135	0.000132	3.47
SW-08	Flett	2023-07-16	MTWATR080223JS1-004												
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003												
SW-08	Flett	2023-07-16	MTWATR080223JS1-003												
SW-08	ALS	2023-07-16	WP2316171-009												
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005												
SW-08	Flett	2023-08-05	MTWATR082323JS1-006												
SW-08	ALS	2023-08-05	WP2318603-005	<0.030		0.0399	0.035	1.47	1.41		0.00235	0.00286	0.000126	0.000146	3.65
SW-08	ALS	2023-08-05	WP2318603-006	<0.030		0.0387	0.046	1.45	1.4		0.00239	0.00267	0.000111	0.000117	3.64
SW-08	Flett	2023-09-04	MTWATR091323JS2-004												
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003												
SW-08	Flett	2023-09-04	MTWATR091323JS2-003												
SW-08	ALS	2023-09-04	WP2322079-003	0.031		0.0568	0.05	2.51	2.38		0.00371	0.00365	0.000125	0.000134	4.13
SW-08	Flett	2023-10-11	MTWATR111923JS1-004												
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003												
SW-08	Flett	2023-10-11	MTWATR111923JS1-003												
SW-08	ALS	2023-10-11	WP2326289-002	<0.030		0.122	0.103	2.36	2.85		0.00214	0.00977	0.000114	0.000117	5.8
SW-08	ALS	2023-11-04	WP2328799	<0.030	<0.030	0.031	<0.050	1.02	1.14		0.00172	0.00225	0.000091	0.000078	2.24
SW-08	ALS	2023-11-04	WP2328799	<0.030	<0.030	0.0312	<0.050	1.04	1.18		0.00177	0.00234	0.000086	0.00009	2.2
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006												
SW-08	Flett	2023-11-04	MTWATR112023JS1-006												
SW-08	ALS	2023-11-04	WP2328799-009				<0.030								
SW-08	ALS	2023-11-04	WP2328799-004				<0.030								
SW-08	ALS	2023-12-07	WP2332136	<0.030	<0.030	0.0231	<0.050	1.27	1.29		0.00194	0.0023	0.0001	0.00012	2.81
SW-08	ALS	2023-12-07	WP2332136	<0.030	<0.030	0.0223	<0.050	1.28	1.31		0.00201	0.00228	0.000125	0.000101	2.93
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007													
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006													
SW-08	Flett	2022-07-25	MTWATR092022JS1-006													
SW-08	SGS	2022-07-25	CA15458-JUL22	5.46	< 0.00005	< 0.00005	1.27	1.46	80	34	0.0242	0.0277		2	< 2	
SW-08	Flett	2022-08-25	MTWATR092022JS1-004													
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004													
SW-08	Flett	2022-08-25	MTWATR092022JS1-003													
SW-08	SGS	2022-09-19	CA12949-SEP22	1.33	< 0.00005	< 0.00005	1.67	1.9	100	9	0.0262	0.031	1	1	< 2	
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006													
SW-08	Flett	2022-10-12	MTWATR110722JS1-006													
SW-08	SGS	2022-10-12	CA15286-OCT22	1.88	< 0.00005	< 0.00005	1.31	1.32	69	11	0.0266	0.0279	1	1	< 2	
SW-08	SGS	2022-10-12	CA15286-OCT22	1.83	< 0.00005	< 0.00005	1.29	1.37	60	12	0.0259	0.0282	1	1	< 2	
SW-08	SGS	2022-10-20	CA12874-OCT22	4.96	0.00007	< 0.00005	4.87	5.73	169	50	0.0558	0.0653	3	3	10	
SW-08	SGS	2022-11-07	CA15216-NOV22	0.9	<0.00005	< 0.00005	1.41	1.21	143	10	0.0329	0.0286	< 1	< 1	< 2	
SW-08	SGS	2023-02-09	CA15284-FEB23	2.93	< 0.00005	< 0.00005	1.74	1.91	100	9	0.0321	0.0346	< 1	< 1	< 2	
SW-08	SGS	2023-03-28	CA15003-APR23	3.82	< 0.00005	< 0.00005	2.3	2.2	77	6	0.0395	0.0382	1	< 1	< 2	
SW-08	SGS	2023-04-11	CA13551-APR23	5.41	< 0.00005	< 0.00005	2.58	2.64	111	37	0.0349	0.0366	3	3	< 2	
SW-08	ALS	2023-05-14	WP2308112													
SW-08	ALS	2023-05-14	WP2308112	2.96	<0.000010	0.000012	1.44	1.43	70.7	10.7	0.0211	0.026	<0.50	<0.50	0.86	<0.00020
SW-08	ALS	2023-05-14	WP2308112-005													
SW-08	Flett	2023-05-19	MTWATR060823JS1-003													
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002													
SW-08	Flett	2023-05-19	MTWATR060823JS1-002													
SW-08	Flett	2023-06-05	MTWATR062123JS3-005													
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005													
SW-08	ALS	2023-06-05	WP2310937-004	4.08	<0.000010	<0.000010	1.67	1.95	57	29	0.0286	0.0305	<0.50	0.83	1.11	<0.00020
SW-08	ALS	2023-07-16	WP2316171	3.94	<0.000010	0.000012	4.45	4.63	153	7	0.0641	0.0652	1.38	1.35	3.18	<0.00020
SW-08	Flett	2023-07-16	MTWATR080223JS1-004													
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003													
SW-08	Flett	2023-07-16	MTWATR080223JS1-003													
SW-08	ALS	2023-07-16	WP2316171-009													
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005													
SW-08	Flett	2023-08-05	MTWATR082323JS1-006													
SW-08	ALS	2023-08-05	WP2318603-005	3.78	<0.000010	0.000011	2.63	2.57	119	5.8	0.0482	0.0474	<0.50	<0.50	1.11	<0.00020
SW-08	ALS	2023-08-05	WP2318603-006	3.87	<0.000010	0.00001	2.74	2.57	112	5.1	0.0496	0.0462	<0.50	0.56	1.13	<0.00020
SW-08	Flett	2023-09-04	MTWATR091323JS2-004													
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003													
SW-08	Flett	2023-09-04	MTWATR091323JS2-003													
SW-08	ALS	2023-09-04	WP2322079-003	4.15	<0.000010	<0.000010	5.8	6.64	191	3.1	0.0719	0.0741	2.12	2.05	4.29	<0.00020
SW-08	Flett	2023-10-11	MTWATR111923JS1-004													
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003													
SW-08	Flett	2023-10-11	MTWATR111923JS1-003													
SW-08	ALS	2023-10-11	WP2326289-002	14	<0.000010	0.000046	4.01	3.9	168	64	0.0519	0.0621	1.68	1.74	3.94	<0.00020
SW-08	ALS	2023-11-04	WP2328799	2.82	<0.000010	<0.000010	1.57	1.58	53.7	8.6	0.027	0.0262	<0.50	<0.50	0.72	<0.00020
SW-08	ALS	2023-11-04	WP2328799	2.87	<0.000010	<0.000010	1.59	1.6	64.7	8.5	0.0284	0.026	<0.50	<0.50	0.71	<0.00020
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006													
SW-08	Flett	2023-11-04	MTWATR112023JS1-006													
SW-08	ALS	2023-11-04	WP2328799-009													
SW-08	ALS	2023-11-04	WP2328799-004													
SW-08	ALS	2023-12-07	WP2332136	3.22	<0.000010	0.000014	1.94	1.88	77.2	5	0.0312	0.0309	<0.50	<0.50	0.86	<0.00020
SW-08	ALS	2023-12-07	WP2332136	3.3	<0.000010	0.000012	2.01	1.99	76.5	4.5	0.0312	0.0309	<0.50	0.51	0.89	<0.00020
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007													
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006													
SW-08	Flett	2022-07-25	MTWATR092022JS1-006													
SW-08	SGS	2022-07-25	CA15458-JUL22		0.00001	0.000025			0.00007	0.00014			20	0.00015	0.00028	0.000252
SW-08	Flett	2022-08-25	MTWATR092022JS1-004													
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004													
SW-08	Flett	2022-08-25	MTWATR092022JS1-003													
SW-08	SGS	2022-09-19	CA12949-SEP22		< 0.000005	0.000007			< 0.00006	0.00017	0.00234	0.0218	19	0.00019	0.00023	0.000378
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006													
SW-08	Flett	2022-10-12	MTWATR110722JS1-006													
SW-08	SGS	2022-10-12	CA15286-OCT22		< 0.000005	0.00001			< 0.00006	0.00007	0.00228	0.0216	18	0.00006	0.00007	0.000344
SW-08	SGS	2022-10-12	CA15286-OCT22		< 0.000005	0.00001			< 0.00006	< 0.00006	0.0027	0.0206	18	0.00006	0.00007	0.000348
SW-08	SGS	2022-10-20	CA12874-OCT22		0.000012	0.000009			0.00011	0.00007	0.013	0.00339	24	0.00176	0.00198	0.00183
SW-08	SGS	2022-11-07	CA15216-NOV22		< 0.000005	0.000005			< 0.00006	< 0.00006	0.0018	0.00184	18	0.00014	0.00014	0.000366
SW-08	SGS	2023-02-09	CA15284-FEB23		< 0.000005	0.000005			< 0.00006	0.00007	0.003	0.0142	19	0.00005	0.00007	0.000359
SW-08	SGS	2023-03-28	CA15003-APR23		< 0.000005	< 0.000005			0.0001	0.00014	0.00331	0.0115	21	0.00004	0.00004	0.000401
SW-08	SGS	2023-04-11	CA13551-APR23		< 0.000005	0.000017			0.00009	< 0.00006	0.00529	0.0702	16	0.00008	0.0001	0.000316
SW-08	ALS	2023-05-14	WP2308112													
SW-08	ALS	2023-05-14	WP2308112	<0.00020	<0.000010	<0.000010	<0.00010	0.00011	<0.00010	<0.00010	0.00256	0.0151		<0.00010	<0.00010	0.000226
SW-08	ALS	2023-05-14	WP2308112-005													
SW-08	Flett	2023-05-19	MTWATR060823JS1-003													
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002													
SW-08	Flett	2023-05-19	MTWATR060823JS1-002													
SW-08	Flett	2023-06-05	MTWATR062123JS3-005													
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005													
SW-08	ALS	2023-06-05	WP2310937-004	<0.00020	<0.000010	0.000017	<0.00010	0.00012	<0.00010	<0.00010	0.00215	0.0406		<0.00010	<0.00010	0.000225
SW-08	ALS	2023-07-16	WP2316171	<0.00020	<0.000010	<0.000010	0.00012	0.00012	<0.00010	<0.00010	0.00611	0.0117		0.00082	0.00083	0.000986
SW-08	Flett	2023-07-16	MTWATR080223JS1-004													
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003													
SW-08	Flett	2023-07-16	MTWATR080223JS1-003													
SW-08	ALS	2023-07-16	WP2316171-009													
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005													
SW-08	Flett	2023-08-05	MTWATR082323JS1-006													
SW-08	ALS	2023-08-05	WP2318603-005	<0.00020	<0.000010	<0.000010	<0.00010	0.0001	<0.00010	<0.00010	0.00429	0.00999		0.00052	0.00048	0.000301
SW-08	ALS	2023-08-05	WP2318603-006	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00441	0.0104		0.00053	0.0005	0.000304
SW-08	Flett	2023-09-04	MTWATR091323JS2-004													
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003													
SW-08	Flett	2023-09-04	MTWATR091323JS2-003													
SW-08	ALS	2023-09-04	WP2322079-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00311	0.00515		0.00045	0.00047	0.000766
SW-08	Flett	2023-10-11	MTWATR111923JS1-004													
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003													
SW-08	Flett	2023-10-11	MTWATR111923JS1-003													
SW-08	ALS	2023-10-11	WP2326289-002	<0.00020	<0.000010	0.000056	0.00016	0.00064	<0.00010	0.00013	0.00292	0.187		0.00025	0.00028	0.000416
SW-08	ALS	2023-11-04	WP2328799	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00083	0.0101		<0.00010	<0.00010	0.000108
SW-08	ALS	2023-11-04	WP2328799	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00098	0.0111		<0.00010	<0.00010	0.000106
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006													
SW-08	Flett	2023-11-04	MTWATR112023JS1-006													
SW-08	ALS	2023-11-04	WP2328799-009													
SW-08	ALS	2023-11-04	WP2328799-004													
SW-08	ALS	2023-12-07	WP2332136	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00079	0.00801		<0.00010	<0.00010	0.00015
SW-08	ALS	2023-12-07	WP2332136	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00106	0.0072		<0.00010	<0.00010	0.000153
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-08	Flett	2022-07-25	TMWATR091622ZB1-007									
SW-08	Flett	2022-07-25	TMWATR091622ZB1-006									
SW-08	Flett	2022-07-25	MTWATR092022JS1-006									
SW-08	SGS	2022-07-25	CA15458-JUL22	0.000347	0.00249	0.00527	0.00069	0.00085	0.003	0.005	< 0.002	< 0.002
SW-08	Flett	2022-08-25	MTWATR092022JS1-004									
SW-08	Flett	2022-08-25	TMWATR091622ZB1-004									
SW-08	Flett	2022-08-25	MTWATR092022JS1-003									
SW-08	SGS	2022-09-19	CA12949-SEP22	0.000387	0.00073	0.00185	0.00024	0.00041	< 0.002	< 0.002	< 0.002	< 0.002
SW-08	Flett	2022-10-12	TMWATR111022ZB3-006									
SW-08	Flett	2022-10-12	MTWATR110722JS1-006									
SW-08	SGS	2022-10-12	CA15286-OCT22	0.000361	0.00057	0.00149	0.00021	0.00035	< 0.002	< 0.002	< 0.002	< 0.002
SW-08	SGS	2022-10-12	CA15286-OCT22	0.000363	0.00062	0.00145	0.00024	0.00035	< 0.002	< 0.002	< 0.002	< 0.002
SW-08	SGS	2022-10-20	CA12874-OCT22	0.00216	0.00066	0.00053	0.0004	0.00037	0.008	< 0.002	< 0.002	< 0.002
SW-08	SGS	2022-11-07	CA15216-NOV22	0.000359	0.00053	0.00051	0.00025	0.00022	< 0.002	< 0.002	< 0.002	< 0.002
SW-08	SGS	2023-02-09	CA15284-FEB23	0.000415	0.00077	0.00141	0.00027	0.00037	0.014	0.02	< 0.002	< 0.002
SW-08	SGS	2023-03-28	CA15003-APR23	0.000419	0.0008	0.00143	0.00027	0.00035	< 0.002	0.002	< 0.002	< 0.002
SW-08	SGS	2023-04-11	CA13551-APR23	0.000375	0.00074	0.00347	0.00032	0.00062	0.003	0.007	< 0.002	< 0.002
SW-08	ALS	2023-05-14	WP2308112									
SW-08	ALS	2023-05-14	WP2308112	0.000245	0.00056	0.00138			<0.0010	<0.0030	0.00034	0.00039
SW-08	ALS	2023-05-14	WP2308112-005									
SW-08	Flett	2023-05-19	MTWATR060823JS1-003									
SW-08	Flett	2023-05-19	TMWATR060923ZB1-002									
SW-08	Flett	2023-05-19	MTWATR060823JS1-002									
SW-08	Flett	2023-06-05	MTWATR062123JS3-005									
SW-08	Flett	2023-06-05	TMWATR062023ZB1-005									
SW-08	ALS	2023-06-05	WP2310937-004	0.000301	0.00113	0.00279			0.001	0.0038	0.00042	0.00057
SW-08	ALS	2023-07-16	WP2316171	0.000913	0.00129	0.00183			0.0016	<0.0030	0.00054	0.00045
SW-08	Flett	2023-07-16	MTWATR080223JS1-004									
SW-08	Flett	2023-07-16	TMWATR080423ZB1-003									
SW-08	Flett	2023-07-16	MTWATR080223JS1-003									
SW-08	ALS	2023-07-16	WP2316171-009									
SW-08	Flett	2023-08-05	TMWATR082323ZB1-005									
SW-08	Flett	2023-08-05	MTWATR082323JS1-006									
SW-08	ALS	2023-08-05	WP2318603-005	0.000286	0.00099	0.00122			0.0017	<0.0030	0.00048	0.00044
SW-08	ALS	2023-08-05	WP2318603-006	0.00029	0.00099	0.00124			<0.0010	<0.0030	0.00047	0.00043
SW-08	Flett	2023-09-04	MTWATR091323JS2-004									
SW-08	Flett	2023-09-04	TMWATR091823ZB1-003									
SW-08	Flett	2023-09-04	MTWATR091323JS2-003									
SW-08	ALS	2023-09-04	WP2322079-003	0.000745	0.00105	0.00144			0.0021	<0.0030	0.00056	0.00044
SW-08	Flett	2023-10-11	MTWATR111923JS1-004									
SW-08	Flett	2023-10-11	TMWATR110223ZB1-003									
SW-08	Flett	2023-10-11	MTWATR111923JS1-003									
SW-08	ALS	2023-10-11	WP2326289-002	0.000554	0.00084	0.00932			0.0088	0.0153	0.00072	0.0018
SW-08	ALS	2023-11-04	WP2328799	0.000133	<0.00050	0.00111			<0.0010	<0.0030	<0.00030	0.00021
SW-08	ALS	2023-11-04	WP2328799	0.000133	<0.00050	0.0012			<0.0010	<0.0030	<0.00030	0.00024
SW-08	Flett	2023-11-04	TMWATR110923ZB2-006									
SW-08	Flett	2023-11-04	MTWATR112023JS1-006									
SW-08	ALS	2023-11-04	WP2328799-009									
SW-08	ALS	2023-11-04	WP2328799-004									
SW-08	ALS	2023-12-07	WP2332136	0.000174	<0.00050	0.00097			<0.0010	<0.0030	<0.00030	<0.00020
SW-08	ALS	2023-12-07	WP2332136	0.000186	<0.00050	0.001			<0.0010	<0.0030	<0.00030	<0.00020
SW-08	Flett	2023-12-07	TMWATR121923ZB1-002									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002											
SW-08	ALS	2023-12-07	WP2332136-001											
SW-08	ALS	2024-01-12	WP2401043	7.34	7.23	<0.10	4	51.2	<1.0	<1.0	<1.0	51.2	0.0333	0.148
SW-08	Flett	2024-01-12	TMWATR012524JS2-003											
SW-08	Flett	2024-01-12	MTWATR020924JS1-004											
SW-08	ALS	2024-01-12	WP2401043-002											
SW-08	ALS	2024-02-08	WP2403349	7.31	7.38	0.1	5.8	50.7	<1.0	<1.0	<1.0	50.7	0.0401	0.209
SW-08	Flett	2024-02-08	TMWATR022824CH1-003											
SW-08	Flett	2024-02-08	MTWATR030824JS1-003											
SW-08	ALS	2024-02-08	WP2403349-002											
SW-08	ALS	2024-03-13	WP2406277	7.49	7.61	<0.10	3.9	49.1	<1.0	<1.0	<1.0	49.1	0.123	0.311
SW-08	Flett	2024-03-13	TMWATR032024CH1-006											
SW-08	Flett	2024-03-13	MTWATR032124JS1-007											
SW-08	Flett	2024-03-13	TMWATR032024CH1-005											
SW-08	Flett	2024-03-13	MTWATR032124JS1-006											
SW-08	ALS	2024-03-13	WP2406277-001											
SW-08	ALS	2024-04-04	WP2408018	6.16	7.42	<0.10	2	57.7	<1.0	<1.0	<1.0	57.7	0.0443	0.46
SW-08	Flett	2024-04-04	TMWATR042224CH1-006											
SW-08	Flett	2024-04-04	MTWATR041624JS1-006											
SW-08	ALS	2024-04-04	WP2408018-003											
SW-08	ALS	2024-05-21	WP2412814	7.65	7.5	14.3	<2.0	33.6	<1.0	<1.0	<1.0	33.6	0.0764	0.503
SW-08	ALS	2024-05-31	WP2414163	6.72	7.39	15.7	2.9	31.1	<1.0	<1.0	<1.0	31.1	0.098	0.201
SW-08	Flett	2024-05-31	TMWATR061924CH1-012											
SW-08	Flett	2024-05-31	MTWATR061024JS1-012											
SW-08	ALS	2024-06-16	WP2415267	6.99	7.3	21	3.4	30.1	<1.0	<1.0	<1.0	30.1	0.0998	0.47
SW-08	Flett	2024-06-16	TMWATR070224CH1											
SW-08	ALS	2024-07-08	WP2417256											
SW-08	ALS	2024-07-08	WP2417256	6.62	7.4	22.7	4.1	30.7	<1.0	<1.0	<1.0	30.7	0.0795	0.168
SW-08	Flett	2024-07-08	TMWATR072524CH2											
SW-08	Flett	2024-07-08	TMWATR072524CH2											
SW-08	Flett	2024-07-08	MTWATR072424JS2											
SW-08	ALS	2024-08-04	WP2419020											
SW-08	ALS	2024-08-04	WP2419020	6.61	7.46	21.6	<2.0	38.6	<1.0	<1.0	<1.0	38.6	0.0542	0.283
SW-08	Flett	2024-08-04	MTWATR091624JS1-004											
SW-08	Flett	2024-08-04	TMWATR091124CH1-004											
SW-08	Flett	2024-08-04	MTWATR091624JS1-003											
SW-08	ALS	2024-09-03	WP2421465	6.61	7.7	13.1	3	42	<1.0	<1.0	<1.0	42	0.0478	0.335
SW-08	ALS	2024-09-03	WP2421465											
SW-08	ALS	2024-09-03	WP2421465	6.61	7.56	13.1	3	41.8	<1.0	<1.0	<1.0	41.8	0.0298	0.468
SW-08	Flett	2024-09-03	TMWATR092924CH1-013											
SW-08	Flett	2024-09-03	MTWATR100124JS1-015											
SW-08	ALS	2024-10-02	WP2423347	7.3	7.59	12.5	<2.0	37.1	<1.0	<1.0	<1.0	37.1	0.0488	0.282
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003											
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002											
SW-08	Flett	2024-10-02	MTWATR112724JS1-002											
SW-08	ALS	2024-11-02	WP2425500	7.18	7.66	1.4	2.2	42.5	<1.0	<1.0	<1.0	42.5	0.0514	0.182
SW-08	Flett	2024-11-02	MTWATR120524JS1-004											
SW-08	Flett	2024-11-02	TMWATR112524CH1-005											
SW-08	ALS	2024-12-01	WP2426900	7.41	7.42	7.41	2.3	36.1	<1.0	<1.0	<1.0	36.1	0.0688	0.182
SW-08	ALS	2024-12-01	WP2426900	7.41	7.41	0	2.4	36.7	<1.0	<1.0	<1.0	36.7	0.0616	0.166
SW-08	Flett	2024-12-01	TMWATR012125CH1-010											
SW-08	Flett	2024-12-01	MTWATR121924JS1-011											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002												
SW-08	ALS	2023-12-07	WP2332136-001		0.03										
SW-08	ALS	2024-01-12	WP2401043			<0.0010	0.0413	0.0001	<0.00010	0.00155	0.00162	0.0114	0.0119	<0.000020	<0.000020
SW-08	Flett	2024-01-12	TMWATR012524JS2-003												
SW-08	Flett	2024-01-12	MTWATR020924JS1-004												
SW-08	ALS	2024-01-12	WP2401043-002		0.0413										
SW-08	ALS	2024-02-08	WP2403349			<0.0010	0.0528	<0.00010	<0.00010	0.00139	0.00152	0.0123	0.0138	<0.000020	<0.000020
SW-08	Flett	2024-02-08	TMWATR022824CH1-003												
SW-08	Flett	2024-02-08	MTWATR030824JS1-003												
SW-08	ALS	2024-02-08	WP2403349-002		0.0528										
SW-08	ALS	2024-03-13	WP2406277			<0.0010	0.299	<0.00010	<0.00010	0.00157	0.00154	0.0161	0.0141	<0.000020	<0.000020
SW-08	Flett	2024-03-13	TMWATR032024CH1-006												
SW-08	Flett	2024-03-13	MTWATR032124JS1-007												
SW-08	Flett	2024-03-13	TMWATR032024CH1-005												
SW-08	Flett	2024-03-13	MTWATR032124JS1-006												
SW-08	ALS	2024-03-13	WP2406277-001		0.299										
SW-08	ALS	2024-04-04	WP2408018			<0.0010	0.0506	<0.00010	<0.00010	0.00185	0.00239	0.0174	0.021	<0.000020	0.000021
SW-08	Flett	2024-04-04	TMWATR042224CH1-006												
SW-08	Flett	2024-04-04	MTWATR041624JS1-006												
SW-08	ALS	2024-04-04	WP2408018-003		0.0506										
SW-08	ALS	2024-05-21	WP2412814			<0.0010	0.011	<0.00010	<0.00010	0.00181	0.0021	0.00716	0.011	<0.000020	0.000025
SW-08	ALS	2024-05-31	WP2414163			<0.0010	0.0307	<0.00010	<0.00010	0.00178	0.0019	0.00834	0.0102	<0.000020	<0.000020
SW-08	Flett	2024-05-31	TMWATR061924CH1-012												
SW-08	Flett	2024-05-31	MTWATR061024JS1-012												
SW-08	ALS	2024-06-16	WP2415267			<0.0010	0.0211	<0.00010	<0.00010	0.002	0.00238	0.00942	0.0125	0.000026	0.000022
SW-08	Flett	2024-06-16	TMWATR070224CH1												
SW-08	ALS	2024-07-08	WP2417256												
SW-08	ALS	2024-07-08	WP2417256			<0.0010	0.0494	<0.00010	<0.00010	0.00252	0.00259	0.0104	0.0107	<0.000020	<0.000020
SW-08	Flett	2024-07-08	TMWATR072524CH2												
SW-08	Flett	2024-07-08	TMWATR072524CH2												
SW-08	Flett	2024-07-08	MTWATR072424JS2												
SW-08	ALS	2024-08-04	WP2419020												
SW-08	ALS	2024-08-04	WP2419020			<0.0010	0.0853	<0.00010	<0.00010	0.00367	0.00379	0.0104	0.0127	<0.000020	0.000021
SW-08	Flett	2024-08-04	MTWATR091624JS1-004												
SW-08	Flett	2024-08-04	TMWATR091124CH1-004												
SW-08	Flett	2024-08-04	MTWATR091624JS1-003												
SW-08	ALS	2024-09-03	WP2421465			<0.0010	0.036	<0.00010	<0.00010	0.00332	0.00339	0.00961	0.0118	<0.000020	0.000027
SW-08	ALS	2024-09-03	WP2421465												
SW-08	ALS	2024-09-03	WP2421465			<0.0010	0.037	<0.00010	<0.00010	0.00312	0.00343	0.00939	0.0124	<0.000020	0.000026
SW-08	Flett	2024-09-03	TMWATR092924CH1-013												
SW-08	Flett	2024-09-03	MTWATR100124JS1-015												
SW-08	ALS	2024-10-02	WP2423347			<0.0010	0.0198	<0.00010	<0.00010	0.00266	0.00294	0.00904	0.0116	<0.000020	0.00002
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003												
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002												
SW-08	Flett	2024-10-02	MTWATR112724JS1-002												
SW-08	ALS	2024-11-02	WP2425500			<0.0010	0.0278	<0.00010	<0.00010	0.00193	0.00198	0.0145	0.0159	<0.000020	<0.000020
SW-08	Flett	2024-11-02	MTWATR120524JS1-004												
SW-08	Flett	2024-11-02	TMWATR112524CH1-005												
SW-08	ALS	2024-12-01	WP2426900			<0.0010	0.0207	<0.00010	<0.00010	0.00206	0.00198	0.0131	0.0135	<0.000020	<0.000020
SW-08	ALS	2024-12-01	WP2426900			<0.0010	0.0226	<0.00010	<0.00010	0.00197	0.00198	0.0129	0.0133	<0.000020	<0.000020
SW-08	Flett	2024-12-01	TMWATR012125CH1-010												
SW-08	Flett	2024-12-01	MTWATR121924JS1-011												

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Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002													
SW-08	ALS	2023-12-07	WP2332136-001													
SW-08	ALS	2024-01-12	WP2401043	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	14.1	14.3	17.6	<0.000010	0.000013		0.43
SW-08	Flett	2024-01-12	TMWATR012524JS2-003													
SW-08	Flett	2024-01-12	MTWATR020924JS1-004													
SW-08	ALS	2024-01-12	WP2401043-002													<
SW-08	ALS	2024-02-08	WP2403349	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000006	15.5	16.2	19.7	<0.000010	0.000017		3.27
SW-08	Flett	2024-02-08	TMWATR022824CH1-003													
SW-08	Flett	2024-02-08	MTWATR030824JS1-003													
SW-08	ALS	2024-02-08	WP2403349-002													
SW-08	ALS	2024-03-13	WP2406277	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000112	14.6	13	15.5	0.000014	0.000034		1.49
SW-08	Flett	2024-03-13	TMWATR032024CH1-006													
SW-08	Flett	2024-03-13	MTWATR032124JS1-007													
SW-08	Flett	2024-03-13	TMWATR032024CH1-005													
SW-08	Flett	2024-03-13	MTWATR032124JS1-006													
SW-08	ALS	2024-03-13	WP2406277-001													
SW-08	ALS	2024-04-04	WP2408018	<0.000050	<0.000050	<0.010	<0.010	0.0000083	0.0000105	18.1	17.4	21.6	<0.000010	0.000048		1.46
SW-08	Flett	2024-04-04	TMWATR042224CH1-006													
SW-08	Flett	2024-04-04	MTWATR041624JS1-006													
SW-08	ALS	2024-04-04	WP2408018-003													
SW-08	ALS	2024-05-21	WP2412814	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000053	10	10.1	18.8	<0.000010	0.000049		0.32
SW-08	ALS	2024-05-31	WP2414163	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	9.52	9.41	20.8	<0.000010	0.000015		0.24
SW-08	Flett	2024-05-31	TMWATR061924CH1-012													
SW-08	Flett	2024-05-31	MTWATR061024JS1-012													
SW-08	ALS	2024-06-16	WP2415267	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000074	9.5	9.67	22.7	<0.000010	0.000049		0.23
SW-08	Flett	2024-06-16	TMWATR070224CH1													
SW-08	ALS	2024-07-08	WP2417256													
SW-08	ALS	2024-07-08	WP2417256	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.64	9.08	27.5	<0.000010	0.000014		0.17
SW-08	Flett	2024-07-08	TMWATR072524CH2													
SW-08	Flett	2024-07-08	TMWATR072524CH2													
SW-08	Flett	2024-07-08	MTWATR072424JS2													
SW-08	ALS	2024-08-04	WP2419020													
SW-08	ALS	2024-08-04	WP2419020	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000055	12.1	12.9	26.3	<0.000010	0.00003		0.33
SW-08	Flett	2024-08-04	MTWATR091624JS1-004													
SW-08	Flett	2024-08-04	TMWATR091124CH1-004													
SW-08	Flett	2024-08-04	MTWATR091624JS1-003													
SW-08	ALS	2024-09-03	WP2421465	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.4	13.2	23	<0.000010	0.000036		0.46
SW-08	ALS	2024-09-03	WP2421465													
SW-08	ALS	2024-09-03	WP2421465	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	11.6	13.5	21.8	<0.000010	0.000056		0.45
SW-08	Flett	2024-09-03	TMWATR092924CH1-013													
SW-08	Flett	2024-09-03	MTWATR100124JS1-015													
SW-08	ALS	2024-10-02	WP2423347	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.1	11.4	22.9	<0.000010	0.000026		0.32
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003													
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002													
SW-08	Flett	2024-10-02	MTWATR112724JS1-002													
SW-08	ALS	2024-11-02	WP2425500	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000052	12.3	12.7	20.2	<0.000010	0.000018		0.55
SW-08	Flett	2024-11-02	MTWATR120524JS1-004													
SW-08	Flett	2024-11-02	TMWATR112524CH1-005													
SW-08	ALS	2024-12-01	WP2426900	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.000009	6.87	10.9	22.3	<0.000010	0.000012		0.31
SW-08	ALS	2024-12-01	WP2426900	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.06	10.4	25.1	<0.000010	0.000019		0.3
SW-08	Flett	2024-12-01	TMWATR012125CH1-010													
SW-08	Flett	2024-12-01	MTWATR121924JS1-011													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002													
SW-08	ALS	2023-12-07	WP2332136-001													
SW-08	ALS	2024-01-12	WP2401043	0.00021	0.00045	<0.00010	0.00014	104	0.00072	0.00082	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2024-01-12	TMWATR012524JS2-003													
SW-08	Flett	2024-01-12	MTWATR020924JS1-004													
SW-08	ALS	2024-01-12	WP2401043-002	0.00050	0.0002	0.00050	0.00045									
SW-08	ALS	2024-02-08	WP2403349	0.00022	0.00064	0.00011	0.00019	116	0.00078	0.00114	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2024-02-08	TMWATR022824CH1-003													
SW-08	Flett	2024-02-08	MTWATR030824JS1-003													
SW-08	ALS	2024-02-08	WP2403349-002													
SW-08	ALS	2024-03-13	WP2406277	0.00034	0.00072	0.00016	0.00024	109	0.00079	0.00118	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2024-03-13	TMWATR032024CH1-006													
SW-08	Flett	2024-03-13	MTWATR032124JS1-007													
SW-08	Flett	2024-03-13	TMWATR032024CH1-005													
SW-08	Flett	2024-03-13	MTWATR032124JS1-006													
SW-08	ALS	2024-03-13	WP2406277-001	0.00034												
SW-08	ALS	2024-04-04	WP2408018	0.00025	0.00105	0.00024	0.0004	119	0.00095	0.00157	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2024-04-04	TMWATR042224CH1-006													
SW-08	Flett	2024-04-04	MTWATR041624JS1-006													
SW-08	ALS	2024-04-04	WP2408018-003													
SW-08	ALS	2024-05-21	WP2412814	0.00034	0.00098	<0.00010	0.00024	72.6	0.00078	0.00123	<0.0010	<0.0500		<0.0010		
SW-08	ALS	2024-05-31	WP2414163	0.00037	0.00055	<0.00010	0.00016	68.2	0.00088	0.00104	0.001	<0.0010		<0.0010		
SW-08	Flett	2024-05-31	TMWATR061924CH1-012													
SW-08	Flett	2024-05-31	MTWATR061024JS1-012													
SW-08	ALS	2024-06-16	WP2415267	0.00045	0.00109	0.00012	0.0003	67.2	0.001	0.0014	<0.0010	<0.0100		<0.0010		
SW-08	Flett	2024-06-16	TMWATR070224CH1													
SW-08	ALS	2024-07-08	WP2417256	0.00041	0.0006											
SW-08	ALS	2024-07-08	WP2417256	<0.00050	0.0006	0.00013	0.00016	70.3	0.00089	0.0009	0.001	0.0012		0.0011		
SW-08	Flett	2024-07-08	TMWATR072524CH2													
SW-08	Flett	2024-07-08	TMWATR072524CH2													
SW-08	Flett	2024-07-08	MTWATR072424JS2													
SW-08	ALS	2024-08-04	WP2419020	0.00035	0.00074											
SW-08	ALS	2024-08-04	WP2419020	<0.00050	0.00074	0.00013	0.00023	86.7	0.00097	0.00119	0.0019	<0.0100		0.0018		
SW-08	Flett	2024-08-04	MTWATR091624JS1-004													
SW-08	Flett	2024-08-04	TMWATR091124CH1-004													
SW-08	Flett	2024-08-04	MTWATR091624JS1-003													
SW-08	ALS	2024-09-03	WP2421465	0.00032	0.00081	0.0001	0.00025	89.9	0.00076	0.00108	0.0018	0.0012		0.0016		
SW-08	ALS	2024-09-03	WP2421465	0.00034	0.0011											
SW-08	ALS	2024-09-03	WP2421465	<0.00050	0.0011	<0.00010	0.0003	89.8	0.00078	0.00118	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2024-09-03	TMWATR092924CH1-013													
SW-08	Flett	2024-09-03	MTWATR100124JS1-015													
SW-08	ALS	2024-10-02	WP2423347	0.00032	0.00075	<0.00010	0.0002	82.1	0.00083	0.00101	<0.0010	<0.0100		<0.0010		
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003													
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002													
SW-08	Flett	2024-10-02	MTWATR112724JS1-002													
SW-08	ALS	2024-11-02	WP2425500	0.00033	0.00058	0.0001	0.00016	88.9	0.00088	0.001	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2024-11-02	MTWATR120524JS1-004													
SW-08	Flett	2024-11-02	TMWATR112524CH1-005													
SW-08	ALS	2024-12-01	WP2426900	0.00031	0.00054	<0.00010	0.00013	79.7	0.0008	0.001	<0.0010	<0.0010		<0.0010		
SW-08	ALS	2024-12-01	WP2426900	0.00032	0.00049	<0.00010	0.00014	79.6	0.00088	0.00091	<0.0010	<0.0010		<0.0010		
SW-08	Flett	2024-12-01	TMWATR012125CH1-010													
SW-08	Flett	2024-12-01	MTWATR121924JS1-011													

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Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002												
SW-08	ALS	2023-12-07	WP2332136-001												
SW-08	ALS	2024-01-12	WP2401043	52.6	52.3	0.171	0.355	0.000051	0.000112	0.0014	0.0019	4.22	4.02	0.00198	0.0192
SW-08	Flett	2024-01-12	TMWATR012524JS2-003												
SW-08	Flett	2024-01-12	MTWATR020924JS1-004												
SW-08	ALS	2024-01-12	WP2401043-002												
SW-08	ALS	2024-02-08	WP2403349	56.6	57.7	0.254	0.524	0.000074	0.000156	0.0018	0.0021	4.36	4.2	0.0286	0.0321
SW-08	Flett	2024-02-08	TMWATR022824CH1-003												
SW-08	Flett	2024-02-08	MTWATR030824JS1-003												
SW-08	ALS	2024-02-08	WP2403349-002												
SW-08	ALS	2024-03-13	WP2406277	52.9	48.2	0.379	0.658	0.000082	0.000185	0.0012	0.0018	4	3.82	0.0613	0.0595
SW-08	Flett	2024-03-13	TMWATR032024CH1-006												
SW-08	Flett	2024-03-13	MTWATR032124JS1-007												
SW-08	Flett	2024-03-13	TMWATR032024CH1-005												
SW-08	Flett	2024-03-13	MTWATR032124JS1-006												
SW-08	ALS	2024-03-13	WP2406277-001												
SW-08	ALS	2024-04-04	WP2408018	66.5	65.4	0.422	1.1	0.000111	0.000246	0.003	0.0024	5.17	5.32	0.0963	0.11
SW-08	Flett	2024-04-04	TMWATR042224CH1-006												
SW-08	Flett	2024-04-04	MTWATR041624JS1-006												
SW-08	ALS	2024-04-04	WP2408018-003												
SW-08	ALS	2024-05-21	WP2412814	37.7	38.9	0.338	0.788	0.00007	0.00019	0.0017	0.0019	3.1	3.33	0.0235	0.0304
SW-08	ALS	2024-05-31	WP2414163	34.8	34.9	0.355	0.508	0.000096	0.000148	0.0016	0.0012	2.68	2.76	0.018	0.0263
SW-08	Flett	2024-05-31	TMWATR061924CH1-012												
SW-08	Flett	2024-05-31	MTWATR061024JS1-012												
SW-08	ALS	2024-06-16	WP2415267	35.7	36.9	0.376	0.856	0.000077	0.00023	0.0016	0.0017	2.92	3.1	0.0296	0.058
SW-08	Flett	2024-06-16	TMWATR070224CH1												
SW-08	ALS	2024-07-08	WP2417256												
SW-08	ALS	2024-07-08	WP2417256	36.6	35	0.444	0.578	0.000078	0.000102	0.0014	0.0014	3.04	3	0.0718	0.0421
SW-08	Flett	2024-07-08	TMWATR072524CH2												
SW-08	Flett	2024-07-08	TMWATR072524CH2												
SW-08	Flett	2024-07-08	MTWATR072424JS2												
SW-08	ALS	2024-08-04	WP2419020												
SW-08	ALS	2024-08-04	WP2419020	44.3	47.3	0.457	0.771	0.000102	0.0002	0.0024	0.0044	3.43	3.67	0.0411	0.0558
SW-08	Flett	2024-08-04	MTWATR091624JS1-004												
SW-08	Flett	2024-08-04	TMWATR091124CH1-004												
SW-08	Flett	2024-08-04	MTWATR091624JS1-003												
SW-08	ALS	2024-09-03	WP2421465	45.3	48.2	0.42	0.76	0.000118	0.000238	0.0014	0.0031	3.48	3.71	0.0327	0.0397
SW-08	ALS	2024-09-03	WP2421465												
SW-08	ALS	2024-09-03	WP2421465	43	49.2	0.338	0.931	0.000088	0.000304	0.0014	0.0031	3.42	3.77	0.0324	0.0416
SW-08	Flett	2024-09-03	TMWATR092924CH1-013												
SW-08	Flett	2024-09-03	MTWATR100124JS1-015												
SW-08	ALS	2024-10-02	WP2423347	41.6	42.6	0.362	0.656	0.00011	0.000187	0.0017	0.0026	3.38	3.43	0.0164	0.0228
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003												
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002												
SW-08	Flett	2024-10-02	MTWATR112724JS1-002												
SW-08	ALS	2024-11-02	WP2425500	44.8	47.8	0.357	0.589	0.000124	0.000173	0.002	0.002	3.42	3.91	0.0164	0.0199
SW-08	Flett	2024-11-02	MTWATR120524JS1-004												
SW-08	Flett	2024-11-02	TMWATR112524CH1-005												
SW-08	ALS	2024-12-01	WP2426900	30.4	41.3	0.32	0.53	0.000085	0.000182	0.0032	0.0017	3.21	3.42	0.0104	0.0136
SW-08	ALS	2024-12-01	WP2426900	32.8	36.3	0.319	0.523	0.0001	0.000191	0.0016	<0.0010	3.08	2.51	0.0102	0.0131
SW-08	Flett	2024-12-01	TMWATR012125CH1-010												
SW-08	Flett	2024-12-01	MTWATR121924JS1-011												

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Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002		0.038										
SW-08	ALS	2023-12-07	WP2332136-001												
SW-08	ALS	2024-01-12	WP2401043	<0.0000050		<0.0000050		0.000229	0.000259	<0.00050	0.00059	0.0832	0.0852	0.002	
SW-08	Flett	2024-01-12	TMWATR012524JS2-003				1.05								
SW-08	Flett	2024-01-12	MTWATR020924JS1-004		0.037										
SW-08	ALS	2024-01-12	WP2401043-002												
SW-08	ALS	2024-02-08	WP2403349	<0.0000050		<0.0000050		0.000271	0.000244	0.00054	0.00074	0.125	0.126	0.0012	
SW-08	Flett	2024-02-08	TMWATR022824CH1-003				1.75								
SW-08	Flett	2024-02-08	MTWATR030824JS1-003		0.071										
SW-08	ALS	2024-02-08	WP2403349-002												
SW-08	ALS	2024-03-13	WP2406277	<0.0000050		<0.0000050		0.000269	0.000228	0.00058	0.00078	0.191	0.196	0.0047	<0.03
SW-08	Flett	2024-03-13	TMWATR032024CH1-006				1.89								
SW-08	Flett	2024-03-13	MTWATR032124JS1-007		0.086										
SW-08	Flett	2024-03-13	TMWATR032024CH1-005				1.88								
SW-08	Flett	2024-03-13	MTWATR032124JS1-006		0.088										
SW-08	ALS	2024-03-13	WP2406277-001												
SW-08	ALS	2024-04-04	WP2408018	<0.0000050		<0.0000050		0.000323	0.000286	0.00072	0.00112	0.131	0.135	0.0041	<0.03
SW-08	Flett	2024-04-04	TMWATR042224CH1-006				1.79								
SW-08	Flett	2024-04-04	MTWATR041624JS1-006		0.071										
SW-08	ALS	2024-04-04	WP2408018-003												
SW-08	ALS	2024-05-21	WP2412814	<0.0000050		<0.0000050		0.000182	0.000202	0.00058	0.00102	0.0116	0.0116	<0.0010	<0.03
SW-08	ALS	2024-05-31	WP2414163	<0.0000050		<0.0000050		0.000178	0.000147	0.00061	0.00077	<0.0050	<0.0051	<0.0010	
SW-08	Flett	2024-05-31	TMWATR061924CH1-012				3.71								
SW-08	Flett	2024-05-31	MTWATR061024JS1-012		0.136										
SW-08	ALS	2024-06-16	WP2415267	<0.0000050		<0.0000050		0.000176	0.0002	0.00067	0.00104	0.0057	0.0057	<0.0010	
SW-08	Flett	2024-06-16	TMWATR070224CH1				3.86								
SW-08	ALS	2024-07-08	WP2417256												
SW-08	ALS	2024-07-08	WP2417256	<0.0000050		<0.0000050		0.000198	0.000161	0.00071	0.00058	0.0188	0.0188	<0.0010	
SW-08	Flett	2024-07-08	TMWATR072524CH2				3.32								
SW-08	Flett	2024-07-08	TMWATR072524CH2				3.34								
SW-08	Flett	2024-07-08	MTWATR072424JS2		0.2										
SW-08	ALS	2024-08-04	WP2419020												
SW-08	ALS	2024-08-04	WP2419020	<0.0000050		<0.0000050		0.000243	0.000258	0.0007	0.001	0.141	0.16	0.0187	<0.030
SW-08	Flett	2024-08-04	MTWATR091624JS1-004		0.163										
SW-08	Flett	2024-08-04	TMWATR091124CH1-004				2.21								
SW-08	Flett	2024-08-04	MTWATR091624JS1-003		0.16										
SW-08	ALS	2024-09-03	WP2421465	<0.0000050		<0.0000050		0.000212	0.000209	0.00057	0.00098	0.116	0.119	0.0029	<0.030
SW-08	ALS	2024-09-03	WP2421465												
SW-08	ALS	2024-09-03	WP2421465	<0.0000050		<0.0000050		0.000216	0.000234	0.00063	0.0012	0.115	0.118	0.0028	
SW-08	Flett	2024-09-03	TMWATR092924CH1-013				1.91								
SW-08	Flett	2024-09-03	MTWATR100124JS1-015		0.107										
SW-08	ALS	2024-10-02	WP2423347	<0.0000050		<0.0000050		0.000211	0.000203	0.00059	0.00091	0.0674	0.0685	0.0011	<0.030
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003				3.44								
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002				3.55								
SW-08	Flett	2024-10-02	MTWATR112724JS1-002		0.096										
SW-08	ALS	2024-11-02	WP2425500	<0.0000050		<0.0000050		0.000216	0.000234	0.00062	0.00071	0.0552	0.0552	<0.0010	<0.030
SW-08	Flett	2024-11-02	MTWATR120524JS1-004		0.053										
SW-08	Flett	2024-11-02	TMWATR112524CH1-005				1.4								
SW-08	ALS	2024-12-01	WP2426900	<0.0000050		<0.0000050		0.000117	0.000213	0.00057	0.00716	0.0742	0.0742	<0.0010	<0.030
SW-08	ALS	2024-12-01	WP2426900	<0.0000050		<0.0000050		0.000148	0.000178	0.00055	0.00067	0.0778	0.0789	0.0011	<0.030
SW-08	Flett	2024-12-01	TMWATR012125CH1-010				1.81								
SW-08	Flett	2024-12-01	MTWATR121924JS1-011		0.045										

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Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002												
SW-08	ALS	2023-12-07	WP2332136-001				<0.030								
SW-08	ALS	2024-01-12	WP2401043	<0.030	<0.030	0.0231	<0.050	1.21	1.27		0.0021	0.00218	0.00013	0.000098	2.98
SW-08	Flett	2024-01-12	TMWATR012524JS2-003												
SW-08	Flett	2024-01-12	MTWATR020924JS1-004												
SW-08	ALS	2024-01-12	WP2401043-002	<0.050 <0.030											
SW-08	ALS	2024-02-08	WP2403349	<0.030	<0.030	0.0258	<0.050	1.31	1.23		0.00195	0.00234	0.000121	0.000115	3.04
SW-08	Flett	2024-02-08	TMWATR022824CH1-003												
SW-08	Flett	2024-02-08	MTWATR030824JS1-003												
SW-08	ALS	2024-02-08	WP2403349-002				<0.03								
SW-08	ALS	2024-03-13	WP2406277	<0.050	0.042	0.0376	<0.050	1.27	1.31		0.00215	0.00268	0.000074	0.000107	3.05
SW-08	Flett	2024-03-13	TMWATR032024CH1-006												
SW-08	Flett	2024-03-13	MTWATR032124JS1-007												
SW-08	Flett	2024-03-13	TMWATR032024CH1-005												
SW-08	Flett	2024-03-13	MTWATR032124JS1-006												
SW-08	ALS	2024-03-13	WP2406277-001	<0.030			0.042								
SW-08	ALS	2024-04-04	WP2408018	<0.050	0.038	0.0411	<0.050	1.45	1.56		0.00217	0.00325	0.000115	0.000118	3.56
SW-08	Flett	2024-04-04	TMWATR042224CH1-006												
SW-08	Flett	2024-04-04	MTWATR041624JS1-006												
SW-08	ALS	2024-04-04	WP2408018-003				0.038								
SW-08	ALS	2024-05-21	WP2412814	<0.030	0.046	0.0363	<0.050	1.03	1.07		0.00162	0.00247	0.000092	0.000123	2.08
SW-08	ALS	2024-05-31	WP2414163	<0.030	<0.030	0.039	<0.050	0.928	0.89		0.0016	0.00185	<0.000050	0.000106	1.76
SW-08	Flett	2024-05-31	TMWATR061924CH1-012												
SW-08	Flett	2024-05-31	MTWATR061024JS1-012												
SW-08	ALS	2024-06-16	WP2415267	<0.030	0.035	0.0413	<0.050	0.892	1		0.0017	0.00246	0.000132	0.000134	0.618
SW-08	Flett	2024-06-16	TMWATR070224CH1												
SW-08	ALS	2024-07-08	WP2417256	<0.030											
SW-08	ALS	2024-07-08	WP2417256	<0.050	0.034	0.0399	<0.050	0.817	0.824		0.00173	0.00189	0.000092	0.000098	1.35
SW-08	Flett	2024-07-08	TMWATR072524CH2												
SW-08	Flett	2024-07-08	TMWATR072524CH2												
SW-08	Flett	2024-07-08	MTWATR072424JS2												
SW-08	ALS	2024-08-04	WP2419020												
SW-08	ALS	2024-08-04	WP2419020	<0.050	0.043	0.0504	<0.050	0.918	1.03		0.00197	0.00246	0.00009	0.000153	1.7
SW-08	Flett	2024-08-04	MTWATR091624JS1-004												
SW-08	Flett	2024-08-04	TMWATR091124CH1-004												
SW-08	Flett	2024-08-04	MTWATR091624JS1-003												
SW-08	ALS	2024-09-03	WP2421465	<0.050	<0.030	0.042	<0.050	0.929	0.97		0.00176	0.00233	0.000176	0.000061	2.06
SW-08	ALS	2024-09-03	WP2421465	<0.030											
SW-08	ALS	2024-09-03	WP2421465	<0.050	0.041	0.0426	<0.050	0.932	1.02		0.0018	0.00258	0.000149	0.000122	2.02
SW-08	Flett	2024-09-03	TMWATR092924CH1-013												
SW-08	Flett	2024-09-03	MTWATR100124JS1-015												
SW-08	ALS	2024-10-02	WP2423347		0.033	0.0405		0.844	0.925		0.00183	0.00218	0.000169	<0.000050	2.38
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003												
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002												
SW-08	Flett	2024-10-02	MTWATR112724JS1-002												
SW-08	ALS	2024-11-02	WP2425500		0.038	0.0309		1.04	0.982		0.00149	0.00182	0.000103	0.000105	2.01
SW-08	Flett	2024-11-02	MTWATR120524JS1-004												
SW-08	Flett	2024-11-02	TMWATR112524CH1-005												
SW-08	ALS	2024-12-01	WP2426900		<0.030	0.0275		0.856	0.909		0.00133	0.00157	0.000102	0.000147	1.7
SW-08	ALS	2024-12-01	WP2426900		<0.030	0.0276		0.846	0.766		0.0013	0.00173	0.000061	<0.000050	1.63
SW-08	Flett	2024-12-01	TMWATR012125CH1-010												
SW-08	Flett	2024-12-01	MTWATR121924JS1-011												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002													
SW-08	ALS	2023-12-07	WP2332136-001													
SW-08	ALS	2024-01-12	WP2401043	3.51	<0.000010	<0.000010	1.85	1.9	86.3	3.4	0.0326	0.0321	0.6	<0.50	0.96	<0.00020
SW-08	Flett	2024-01-12	TMWATR012524JS2-003													
SW-08	Flett	2024-01-12	MTWATR020924JS1-004													
SW-08	ALS	2024-01-12	WP2401043-002													
SW-08	ALS	2024-02-08	WP2403349	3.4	<0.000010	0.000022	2.16	4.27	86.3	6	0.0338	0.0332	0.83	0.62	1.09	<0.00020
SW-08	Flett	2024-02-08	TMWATR022824CH1-003													
SW-08	Flett	2024-02-08	MTWATR030824JS1-003													
SW-08	ALS	2024-02-08	WP2403349-002													
SW-08	ALS	2024-03-13	WP2406277	3.06	<0.000010	0.00002	2.25	3.06	65.4	8.2	0.034	0.0282	<0.50	0.64	1.13	<0.00020
SW-08	Flett	2024-03-13	TMWATR032024CH1-006													
SW-08	Flett	2024-03-13	MTWATR032124JS1-007													
SW-08	Flett	2024-03-13	TMWATR032024CH1-005													
SW-08	Flett	2024-03-13	MTWATR032124JS1-006													
SW-08	ALS	2024-03-13	WP2406277-001													
SW-08	ALS	2024-04-04	WP2408018	4.52	<0.000010	0.000024	3.05	3.07	83.3	10.8	0.0388	0.0378	0.62	0.63	1.14	<0.00020
SW-08	Flett	2024-04-04	TMWATR042224CH1-006													
SW-08	Flett	2024-04-04	MTWATR041624JS1-006													
SW-08	ALS	2024-04-04	WP2408018-003													
SW-08	ALS	2024-05-21	WP2412814	3.14	<0.000010	<0.000010	1.47	1.57	61.7	6.5	0.0238	0.0249	0.64	0.5	0.92	<0.00020
SW-08	ALS	2024-05-31	WP2414163	1.79	<0.000010	<0.000010	1.32	1.38	59.4	10.6	0.023	0.0194	<0.50	<0.50	0.83	<0.00020
SW-08	Flett	2024-05-31	TMWATR061924CH1-012													
SW-08	Flett	2024-05-31	MTWATR061024JS1-012													
SW-08	ALS	2024-06-16	WP2415267	1.45	<0.000010	<0.000010	1.39	1.5	79.9	21.5	0.0226	0.0245	0.53	<0.50	0.74	<0.00020
SW-08	Flett	2024-06-16	TMWATR070224CH1													
SW-08	ALS	2024-07-08	WP2417256													
SW-08	ALS	2024-07-08	WP2417256	1.46	<0.000010	<0.000010	1.47	1.44	68.2	8.2	0.0233	0.0225	<0.50	<0.50	0.56	<0.00020
SW-08	Flett	2024-07-08	TMWATR072524CH2													
SW-08	Flett	2024-07-08	TMWATR072524CH2													
SW-08	Flett	2024-07-08	MTWATR072424JS2													
SW-08	ALS	2024-08-04	WP2419020													
SW-08	ALS	2024-08-04	WP2419020	2.14	<0.000010	<0.000010	1.64	1.73	72.3	8.7	0.0283	0.0296	<0.50	0.53	0.83	<0.00020
SW-08	Flett	2024-08-04	MTWATR091624JS1-004													
SW-08	Flett	2024-08-04	TMWATR091124CH1-004													
SW-08	Flett	2024-08-04	MTWATR091624JS1-003													
SW-08	ALS	2024-09-03	WP2421465	2.84	<0.000010	<0.000010	1.55	1.8	94.2	10	0.0286	0.03	<0.50	<0.50	0.81	<0.00020
SW-08	ALS	2024-09-03	WP2421465													
SW-08	ALS	2024-09-03	WP2421465	3.01	<0.000010	<0.000010	1.58	1.86	87.2	11.1	0.028	0.0305	0.79	<0.50	0.81	<0.00020
SW-08	Flett	2024-09-03	TMWATR092924CH1-013													
SW-08	Flett	2024-09-03	MTWATR100124JS1-015													
SW-08	ALS	2024-10-02	WP2423347	2.98	<0.000010	<0.000010	1.58	1.61	84.7	12.7	0.0268	0.0269	<0.50	<0.50	0.66	<0.00020
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003													
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002													
SW-08	Flett	2024-10-02	MTWATR112724JS1-002													
SW-08	ALS	2024-11-02	WP2425500	2.34	<0.000010	<0.000010	1.8	1.87	82.6	4.8	0.0272	0.0276	0.56	<0.50	0.88	<0.00020
SW-08	Flett	2024-11-02	MTWATR120524JS1-004													
SW-08	Flett	2024-11-02	TMWATR112524CH1-005													
SW-08	ALS	2024-12-01	WP2426900	2.12	<0.000010	<0.000010	1.55	1.68	92.2	5.1	0.016	0.0255	<0.50	0.51	0.68	<0.00020
SW-08	ALS	2024-12-01	WP2426900	1.71	<0.000010	<0.000010	1.5	1.28	92.2	3.8	0.0189	0.0247	<0.50	<0.50	0.73	<0.00020
SW-08	Flett	2024-12-01	TMWATR012125CH1-010													
SW-08	Flett	2024-12-01	MTWATR121924JS1-011													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002													
SW-08	ALS	2023-12-07	WP2332136-001													
SW-08	ALS	2024-01-12	WP2401043	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00102	0.00585		<0.00010	<0.00010	0.000172
SW-08	Flett	2024-01-12	TMWATR012524JS2-003													
SW-08	Flett	2024-01-12	MTWATR020924JS1-004													
SW-08	ALS	2024-01-12	WP2401043-002													
SW-08	ALS	2024-02-08	WP2403349	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	0.00013	0.00145	0.00864		<0.00010	<0.00010	0.000201
SW-08	Flett	2024-02-08	TMWATR022824CH1-003													
SW-08	Flett	2024-02-08	MTWATR030824JS1-003													
SW-08	ALS	2024-02-08	WP2403349-002													
SW-08	ALS	2024-03-13	WP2406277	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00559	0.014		0.00012	0.00012	0.000169
SW-08	Flett	2024-03-13	TMWATR032024CH1-006													
SW-08	Flett	2024-03-13	MTWATR032124JS1-007													
SW-08	Flett	2024-03-13	TMWATR032024CH1-005													
SW-08	Flett	2024-03-13	MTWATR032124JS1-006													
SW-08	ALS	2024-03-13	WP2406277-001													
SW-08	ALS	2024-04-04	WP2408018	<0.00020	<0.000010	<0.000010	<0.00010	0.00011	<0.00010	<0.00010	0.00185	0.0215		0.00022	0.00027	0.000253
SW-08	Flett	2024-04-04	TMWATR042224CH1-006													
SW-08	Flett	2024-04-04	MTWATR041624JS1-006													
SW-08	ALS	2024-04-04	WP2408018-003													
SW-08	ALS	2024-05-21	WP2412814	<0.00020	<0.000010	<0.000010	<0.00010	0.00011	<0.00010	<0.00010	0.00225	0.0206		<0.00010	<0.00010	0.000168
SW-08	ALS	2024-05-31	WP2414163	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00271	0.00728		<0.00010	<0.00010	0.000178
SW-08	Flett	2024-05-31	TMWATR061924CH1-012													
SW-08	Flett	2024-05-31	MTWATR061024JS1-012													
SW-08	ALS	2024-06-16	WP2415267	<0.00020	<0.000010	0.000011	0.00011	0.00013	<0.00010	<0.00010	0.0029	0.0207		<0.00010	<0.00010	0.000186
SW-08	Flett	2024-06-16	TMWATR070224CH1													
SW-08	ALS	2024-07-08	WP2417256													
SW-08	ALS	2024-07-08	WP2417256	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00219	0.00668		<0.00010	<0.00010	0.000198
SW-08	Flett	2024-07-08	TMWATR072524CH2													
SW-08	Flett	2024-07-08	TMWATR072524CH2													
SW-08	Flett	2024-07-08	MTWATR072424JS2													
SW-08	ALS	2024-08-04	WP2419020													
SW-08	ALS	2024-08-04	WP2419020	<0.00020	<0.000010	<0.000010	<0.00010	0.0001	<0.00010	<0.00010	0.00274	0.0121		<0.00010	<0.00010	0.00023
SW-08	Flett	2024-08-04	MTWATR091624JS1-004													
SW-08	Flett	2024-08-04	TMWATR091124CH1-004													
SW-08	Flett	2024-08-04	MTWATR091624JS1-003													
SW-08	ALS	2024-09-03	WP2421465	<0.00020	<0.000010	<0.000010	<0.00010	0.00011	<0.00010	<0.00010	0.00231	0.0144		<0.00010	<0.00010	0.000217
SW-08	ALS	2024-09-03	WP2421465													
SW-08	ALS	2024-09-03	WP2421465	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00121	0.0209		<0.00010	<0.00010	0.000234
SW-08	Flett	2024-09-03	TMWATR092924CH1-013													
SW-08	Flett	2024-09-03	MTWATR100124JS1-015													
SW-08	ALS	2024-10-02	WP2423347	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.002	0.0124		<0.00010	<0.00010	0.000219
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003													
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002													
SW-08	Flett	2024-10-02	MTWATR112724JS1-002													
SW-08	ALS	2024-11-02	WP2425500	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00223	0.00794		<0.00010	0.0001	0.000256
SW-08	Flett	2024-11-02	MTWATR120524JS1-004													
SW-08	Flett	2024-11-02	TMWATR112524CH1-005													
SW-08	ALS	2024-12-01	WP2426900	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00213	0.00728		<0.00010	<0.00010	0.000144
SW-08	ALS	2024-12-01	WP2426900	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0021	0.00716		<0.00010	<0.00010	0.00017
SW-08	Flett	2024-12-01	TMWATR012125CH1-010													
SW-08	Flett	2024-12-01	MTWATR121924JS1-011													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-08	Flett	2023-12-07	MTWATR122023JS1-002									
SW-08	ALS	2023-12-07	WP2332136-001									
SW-08	ALS	2024-01-12	WP2401043	0.0002	<0.00050	0.00081			<0.0010	<0.0030	<0.00030	0.00021
SW-08	Flett	2024-01-12	TMWATR012524JS2-003									
SW-08	Flett	2024-01-12	MTWATR020924JS1-004									
SW-08	ALS	2024-01-12	WP2401043-002									
SW-08	ALS	2024-02-08	WP2403349	0.000218	<0.00050	0.00089			0.0036	0.0078	<0.00030	0.00022
SW-08	Flett	2024-02-08	TMWATR022824CH1-003									
SW-08	Flett	2024-02-08	MTWATR030824JS1-003									
SW-08	ALS	2024-02-08	WP2403349-002									
SW-08	ALS	2024-03-13	WP2406277	0.000168	0.00055	0.00118			0.0024	0.0044	0.0004	0.00033
SW-08	Flett	2024-03-13	TMWATR032024CH1-006									
SW-08	Flett	2024-03-13	MTWATR032124JS1-007									
SW-08	Flett	2024-03-13	TMWATR032024CH1-005									
SW-08	Flett	2024-03-13	MTWATR032124JS1-006									
SW-08	ALS	2024-03-13	WP2406277-001									
SW-08	ALS	2024-04-04	WP2408018	0.000271	<0.00050	0.00142			0.004	0.0071	<0.00030	0.00042
SW-08	Flett	2024-04-04	TMWATR042224CH1-006									
SW-08	Flett	2024-04-04	MTWATR041624JS1-006									
SW-08	ALS	2024-04-04	WP2408018-003									
SW-08	ALS	2024-05-21	WP2412814	0.000184	0.00061	0.0015			<0.0010	<0.0030	0.00034	0.00051
SW-08	ALS	2024-05-31	WP2414163	0.000168	0.00068	0.0012			0.0011	<0.0030	0.00039	0.00033
SW-08	Flett	2024-05-31	TMWATR061924CH1-012									
SW-08	Flett	2024-05-31	MTWATR061024JS1-012									
SW-08	ALS	2024-06-16	WP2415267	0.000205	0.00075	0.00155			<0.0010	<0.0030	0.00044	0.00057
SW-08	Flett	2024-06-16	TMWATR070224CH1									
SW-08	ALS	2024-07-08	WP2417256									
SW-08	ALS	2024-07-08	WP2417256	0.000192	0.00078	0.001			<0.0010	<0.0030	0.00045	0.00042
SW-08	Flett	2024-07-08	TMWATR072524CH2									
SW-08	Flett	2024-07-08	TMWATR072524CH2									
SW-08	Flett	2024-07-08	MTWATR072424JS2									
SW-08	ALS	2024-08-04	WP2419020									
SW-08	ALS	2024-08-04	WP2419020	0.000248	0.00085	0.00135			<0.0010	<0.0030	0.00044	0.0005
SW-08	Flett	2024-08-04	MTWATR091624JS1-004									
SW-08	Flett	2024-08-04	TMWATR091124CH1-004									
SW-08	Flett	2024-08-04	MTWATR091624JS1-003									
SW-08	ALS	2024-09-03	WP2421465	0.000266	0.00076	0.00136			<0.0010	<0.0030	0.00038	0.00048
SW-08	ALS	2024-09-03	WP2421465									
SW-08	ALS	2024-09-03	WP2421465	0.000268	0.00069	0.00161			0.0012	0.0237	0.00032	0.00046
SW-08	Flett	2024-09-03	TMWATR092924CH1-013									
SW-08	Flett	2024-09-03	MTWATR100124JS1-015									
SW-08	ALS	2024-10-02	WP2423347	0.000229	0.00074	0.00137			<0.0010	<0.0030	0.00035	0.00043
SW-08	Flett	2024-10-02	TMWATR102824ZB1-003									
SW-08	Flett	2024-10-02	TMWATR102824ZB1-002									
SW-08	Flett	2024-10-02	MTWATR112724JS1-002									
SW-08	ALS	2024-11-02	WP2425500	0.000276	0.00063	0.00102			<0.0010	<0.0030	0.00032	0.00028
SW-08	Flett	2024-11-02	MTWATR120524JS1-004									
SW-08	Flett	2024-11-02	TMWATR112524CH1-005									
SW-08	ALS	2024-12-01	WP2426900	0.000211	0.00067	0.00102			<0.0010	<0.0030	<0.00030	0.00036
SW-08	ALS	2024-12-01	WP2426900	0.000226	0.00065	0.0009			0.0027	<0.0030	0.0003	0.00029
SW-08	Flett	2024-12-01	TMWATR012125CH1-010									
SW-08	Flett	2024-12-01	MTWATR121924JS1-011									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22		7.23		< 2					21		0.337
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011											
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010											
SW-08a	SGS	2022-07-26	CA15458-JUL22	6.45	7.72	20	< 2					28		2.66
SW-08a	SGS	2022-09-19	CA12949-SEP22	7.61	8.09	12.2	< 2					183		0.569
SW-08a	SGS	2022-11-10	CA15304-NOV22	7.18	7.27	0.9	<2					40		0.627
SW-08a	SGS	2023-02-09	CA15284-FEB23	7.27	8.04		< 2					220	0.006	25
SW-08a	ALS	2023-05-21	WP2309398	7.11	7.5	9.34	2.6	42.6	<1.0	<1.0	<1.0	42.6	0.201	0.807
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005											
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005											
SW-08a	ALS	2023-05-21	WP2309398-005											
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008											
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008											
SW-08a	ALS	2023-06-05	WP2310937-002	7.31	7.73	20.2	7.5	67.5	<1.0	<1.0	<1.0	67.5	0.146	1.28
SW-08a	ALS	2023-07-16	WP2316171	7.47	7.81	16.1	2.4	108	<1.0	<1.0	<1.0	108	0.123	0.501
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004											
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005											
SW-08a	ALS	2023-07-16	WP2316171-008											
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003											
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002											
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002											
SW-08a	ALS	2023-08-06	WP2318603-007	7.11	7.57	19.1	3.6	87.4	<1.0	<1.0	<1.0	87.4	0.154	0.353
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004											
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005											
SW-08a	ALS	2023-09-04	WP2322079-004	6.87	7.73	15.8	<2.0	123	<1.0	<1.0	<1.0	123	0.0372	0.0695
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005											
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004											
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005											
SW-08a	ALS	2023-10-11	WP2326289-004	6.3	7.7	7.4	8	114	<1.0	<1.0	<1.0	114	0.0946	2.73
SW-08a	ALS	2023-11-04	WP2328799	7.48	7.68	0.2	5.9	63.8	<1.0	<1.0	<1.0	63.8	0.114	0.643
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007											
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007											
SW-08a	ALS	2023-11-04	WP2328799-005											
SW-08a	ALS	2023-12-07	WP2332136	8.24	7.54	0.2	2.5	49.1	<1.0	<1.0	<1.0	49.1	0.0339	0.189
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003											
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003											
SW-08a	ALS	2023-12-07	WP2332136-002											
SW-08a	ALS	2023-12-07	WP2332136-005	8.24	7.55	0.2	2.5	49.7	<1.0	<1.0	<1.0	49.7	0.0238	0.185
SW-08a	ALS	2024-05-21	WP2412814	6.25	7.29	9.93	2.7	31.7	<1.0	<1.0	<1.0	31.7	0.269	10.2
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014											
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014											
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013											
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013											
SW-08a	ALS	2024-06-19	WP2415611	6.31	7.04	13.7	5.9	26.5	<1.0	<1.0	<1.0	26.5	0.438	2.36
SW-08a	Flett	2024-06-19	TMWATR070224CH1											
SW-08a	Flett	2024-06-19	TMWATR070224CH1											
SW-08a	ALS	2024-07-09	WP2417255	6.6	7.4	22.8	2.2	30	<1.0	<1.0	<1.0	30	0.0784	0.136
SW-08a	Flett	2024-07-09	TMWATR072524CH2											
SW-08a	Flett	2024-07-09	MTWATR072424JS2											
SW-08a	ALS	2024-08-04	WP2419020											
SW-08a	ALS	2024-08-04	WP2419020	6.61	7.51	22	<2.0	37.4	<1.0	<1.0	<1.0	37.4	0.0555	0.226
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22	0.108			< 0.1	< 0.0009	< 0.0009	0.0016	0.002	0.00699	0.0095	0.000011	0.000016
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011												
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010												
SW-08a	SGS	2022-07-26	CA15458-JUL22	0.06			< 0.1	< 0.0009	< 0.0009	0.0027	0.0029	0.0214	0.0291	0.000064	0.000088
SW-08a	SGS	2022-09-19	CA12949-SEP22	0.034			< 0.1	< 0.0009	< 0.0009	0.0048	0.0043	0.0265	0.0252	0.00001	0.000014
SW-08a	SGS	2022-11-10	CA15304-NOV22	0.045			< 0.1	< 0.0009	< 0.0009	0.0023	0.0033	0.0103	0.0157	0.000049	0.000123
SW-08a	SGS	2023-02-09	CA15284-FEB23	0.007			0.2	< 0.0009	< 0.0009	0.0014	0.0087	0.0408	0.263	< 0.000007	0.000705
SW-08a	ALS	2023-05-21	WP2309398			<0.0010	0.032	0.00011	0.00013	0.00303	0.00322	0.00939	0.0144	0.000022	0.000038
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005												
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005												
SW-08a	ALS	2023-05-21	WP2309398-005		0.032										
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008												
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008												
SW-08a	ALS	2023-06-05	WP2310937-002		0.029	<0.0010		0.00015	0.00012	0.00407	0.00439	0.0148	0.0231	<0.000020	0.000061
SW-08a	ALS	2023-07-16	WP2316171			<0.0010	0.028	<0.00010	<0.00010	0.00361	0.00378	0.0339	0.0386	<0.000020	0.000023
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004												
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005												
SW-08a	ALS	2023-07-16	WP2316171-008		0.028										
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003												
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002												
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002												
SW-08a	ALS	2023-08-06	WP2318603-007		0.064	<0.0010		<0.00010	<0.00010	0.00336	0.00319	0.038	0.0365	<0.000020	<0.000020
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004												
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005												
SW-08a	ALS	2023-09-04	WP2322079-004		0.03	<0.0010		0.0001	<0.00010	0.00511	0.00536	0.0288	0.0292	<0.000020	<0.000020
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005												
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004												
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005												
SW-08a	ALS	2023-10-11	WP2326289-004		0.0502	<0.0010		<0.00010	<0.00010	0.00223	0.00321	0.0405	0.0642	<0.000020	0.000077
SW-08a	ALS	2023-11-04	WP2328799			<0.0010	0.0326	0.0001	0.00017	0.00262	0.00309	0.0133	0.0188	<0.000020	0.000039
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007												
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007												
SW-08a	ALS	2023-11-04	WP2328799-005		0.0326										
SW-08a	ALS	2023-12-07	WP2332136			<0.0010	0.0306	<0.00010	<0.00010	0.00143	0.0015	0.0131	0.0157	<0.000020	<0.000020
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003												
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003												
SW-08a	ALS	2023-12-07	WP2332136-002		0.0306										
SW-08a	ALS	2023-12-07	WP2332136-005		0.0248	<0.0010		<0.00010	<0.00010	0.0014	0.00151	0.0129	0.0155	<0.000020	<0.000020
SW-08a	ALS	2024-05-21	WP2412814			<0.0010	0.0198	0.00014	0.00018	0.00289	0.00432	0.00807	0.069	0.000028	0.000229
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014												
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014												
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013												
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013												
SW-08a	ALS	2024-06-19	WP2415611			<0.0010	0.0251	0.00017	0.00016	0.00398	0.0043	0.00936	0.0358	0.000037	0.000126
SW-08a	Flett	2024-06-19	TMWATR070224CH1												
SW-08a	Flett	2024-06-19	TMWATR070224CH1												
SW-08a	ALS	2024-07-09	WP2417255			<0.0010	0.0673	<0.00010	<0.00010	0.00246	0.00255	0.0109	0.0113	<0.000020	<0.000020
SW-08a	Flett	2024-07-09	TMWATR072524CH2												
SW-08a	Flett	2024-07-09	MTWATR072424JS2												
SW-08a	ALS	2024-08-04	WP2419020												
SW-08a	ALS	2024-08-04	WP2419020			<0.0010	0.0887	<0.00010	<0.00010	0.00366	0.00394	0.0101	0.0118	0.000021	0.000028
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22	< 0.00001	< 0.00001	0.005	0.006	< 0.000003	0.000004	5.92	6.38	19			55	< 1
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011													
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010													
SW-08a	SGS	2022-07-26	CA15458-JUL22	< 0.00001	0.00002	0.007	0.007	0.000018	0.000015	8.7	8.75	18			46	1
SW-08a	SGS	2022-09-19	CA12949-SEP22	0.00001	< 0.00001	0.031	0.028	0.000016	0.000013	91.2	56.3	19			47	18
SW-08a	SGS	2022-11-10	CA15304-NOV22	< 0.00001	0.00001	0.006	0.008	0.000184	0.000326	11.3	11.7	17			51	< 1
SW-08a	SGS	2023-02-09	CA15284-FEB23	< 0.00001	0.0002	0.034	0.034	0.000004	0.000205	73.5	76.8	4			9	19
SW-08a	ALS	2023-05-21	WP2309398	<0.000050	<0.000050	<0.010	<0.010	0.0000072	0.0000119	14	14.7	36.4	<0.000010	0.000066		2.19
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005													
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005													
SW-08a	ALS	2023-05-21	WP2309398-005													
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008													
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008													
SW-08a	ALS	2023-06-05	WP2310937-002	<0.000050	<0.000050	0.018	0.019	0.000006	0.0000155	22.4	23.3	31.1	<0.000010	0.000129		5.05
SW-08a	ALS	2023-07-16	WP2316171	<0.000050	<0.000050	<0.010	<0.010	0.0000061	0.0000097	30.4	30.5	20.6	<0.000010	0.000037		2.05
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004													
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005													
SW-08a	ALS	2023-07-16	WP2316171-008													
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003													
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002													
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002													
SW-08a	ALS	2023-08-06	WP2318603-007	<0.000050	<0.000050	<0.010	<0.010	0.0000089	0.000009	24.7	25.6	21.6	<0.000010	0.000024		1.47
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004													
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005													
SW-08a	ALS	2023-09-04	WP2322079-004	<0.000050	<0.000050	<0.010	<0.010	0.0000087	0.0000117	33.7	35.5	23.9	<0.000010	0.000014		4.83
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005													
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004													
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005													
SW-08a	ALS	2023-10-11	WP2326289-004	<0.000050	<0.000050	<0.010	<0.010	0.0000076	0.0000211	29.4	30.1	23.4	<0.000010	0.000322		2.69
SW-08a	ALS	2023-11-04	WP2328799	<0.000050	<0.000050	<0.010	0.011	0.0000114	0.0000151	21.6	22	32.8	<0.000010	0.000069		6.08
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007													
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007													
SW-08a	ALS	2023-11-04	WP2328799-005													
SW-08a	ALS	2023-12-07	WP2332136	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	14.3	14.2	16.4	<0.000010	0.000016		0.44
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003													
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003													
SW-08a	ALS	2023-12-07	WP2332136-002													
SW-08a	ALS	2023-12-07	WP2332136-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000064	14	14.2	16.7	<0.000010	0.000018		0.43
SW-08a	ALS	2024-05-21	WP2412814	<0.000050	0.000058	<0.010	0.011	0.0000125	0.0000283	12.1	13.6	49.8	<0.000010	0.000891		1.58
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014													
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014													
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013													
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013													
SW-08a	ALS	2024-06-19	WP2415611	<0.000050	<0.000050	<0.010	<0.010	0.0000143	0.0000294	11.9	13.5	52.4	<0.000010	0.00014		0.77
SW-08a	Flett	2024-06-19	TMWATR070224CH1													
SW-08a	Flett	2024-06-19	TMWATR070224CH1													
SW-08a	ALS	2024-07-09	WP2417255	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.51	9.16	27.1	<0.000010	0.00001		0.17
SW-08a	Flett	2024-07-09	TMWATR072524CH2													
SW-08a	Flett	2024-07-09	MTWATR072424JS2													
SW-08a	ALS	2024-08-04	WP2419020													
SW-08a	ALS	2024-08-04	WP2419020	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.8	12.4	27.1	<0.000010	0.000027		0.3
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22	0.00029	0.00087	0.000096	0.000198	46	0.0011	0.0013			< 0.01			< 0.06
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011													
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010													
SW-08a	SGS	2022-07-26	CA15458-JUL22	0.00247	0.00578	0.000684	0.00113	60	0.0025	0.0038			< 0.01			< 0.06
SW-08a	SGS	2022-09-19	CA12949-SEP22	0.00042	0.00097	0.000087	0.000142	406	0.0014	0.0011			< 0.01			0.21
SW-08a	SGS	2022-11-10	CA15304-NOV22	0.00101	0.00263	0.000121	0.00039	83	0.0013	0.0016	< 0.005		< 0.01	< 0.01		0.06
SW-08a	SGS	2023-02-09	CA15284-FEB23	< 0.00008	0.0574	0.000159	0.0139	502	0.001	0.0333	< 0.005		< 0.01	< 0.01	1.53	0.31
SW-08a	ALS	2023-05-21	WP2309398	0.00068	0.00196	0.0003	0.00053	106	0.00144	0.0021	0.0016	0.0012		0.0016		
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005													
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005													
SW-08a	ALS	2023-05-21	WP2309398-005													
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008													
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008													
SW-08a	ALS	2023-06-05	WP2310937-002	0.00078	0.00255	0.00028	0.00068	160	0.00178	0.00264	<0.0010	0.0011		<0.0010		
SW-08a	ALS	2023-07-16	WP2316171	0.00038	0.00095	0.0002	0.00033	211	0.00133	0.00168	0.0019	0.0022		0.0018		
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004													
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005													
SW-08a	ALS	2023-07-16	WP2316171-008													
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003													
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002													
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002													
SW-08a	ALS	2023-08-06	WP2318603-007	0.00039	0.00061	0.0002	0.00025	175	0.00128	0.00139	0.0016	<0.0010		0.001		
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004													
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005													
SW-08a	ALS	2023-09-04	WP2322079-004	0.00038	0.00052	0.00038	0.00042	246	0.00089	0.00104	0.0012	<0.0010		<0.0010		
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005													
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004													
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005													
SW-08a	ALS	2023-10-11	WP2326289-004	0.00047	0.00514	0.00023	0.0013	221	0.00187	0.00519	<0.0010	0.0012		<0.0010		
SW-08a	ALS	2023-11-04	WP2328799	0.00055	0.00144	0.0003	0.00052	165	0.00122	0.00182	<0.0010	0.0013		0.0011		
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007													
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007													
SW-08a	ALS	2023-11-04	WP2328799-005													
SW-08a	ALS	2023-12-07	WP2332136	0.0002	0.00043	<0.00010	0.00015	102	0.00068	0.00086	<0.0010	<0.0010		<0.0010		
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003													
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003													
SW-08a	ALS	2023-12-07	WP2332136-002													
SW-08a	ALS	2023-12-07	WP2332136-005	0.00018	0.00046	<0.00010	0.00015	103	0.00068	0.00085	<0.0010	<0.0010		<0.0010		
SW-08a	ALS	2024-05-21	WP2412814	0.00098	0.0163	0.00025	0.00247	81.6	0.00203	0.00921	<0.0010	0.0012		0.0011		
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014													
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014													
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013													
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013													
SW-08a	ALS	2024-06-19	WP2415611	0.00119	0.00509	0.00037	0.00144	69.4	0.00208	0.00524	0.0016	0.0016		0.0013		
SW-08a	Flett	2024-06-19	TMWATR070224CH1													
SW-08a	Flett	2024-06-19	TMWATR070224CH1													
SW-08a	ALS	2024-07-09	WP2417255	0.00044	0.00051	0.0001	0.00014	70.1	0.0009	0.00083	<0.0010	<0.0010		<0.0010		
SW-08a	Flett	2024-07-09	TMWATR072524CH2													
SW-08a	Flett	2024-07-09	MTWATR072424JS2													
SW-08a	ALS	2024-08-04	WP2419020	0.00032	0.00067											
SW-08a	ALS	2024-08-04	WP2419020	<0.00050	0.00067	0.00014	0.00025	83.6	0.00093	0.00109	0.0021	0.0018		0.0019		
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22	22.6	24.4	0.244	0.511	< 0.00009	0.00026	0.001	0.0013	1.89	2.06	0.0102	0.0253
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011												
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010												
SW-08a	SGS	2022-07-26	CA15458-JUL22	34.2	35.7	1.41	2.78	0.00076	0.00108	0.0031	0.0041	3.04	3.36	0.0511	0.064
SW-08a	SGS	2022-09-19	CA12949-SEP22	330	208	0.679	1.37	< 0.00009	0.00011			18.3	15.9	0.00091	0.0425
SW-08a	SGS	2022-11-10	CA15304-NOV22	41.8	43.7	0.382	0.976	0.00015	0.00046			3.29	3.51	0.00997	0.0346
SW-08a	SGS	2023-02-09	CA15284-FEB23	268	316	0.01	33.5	< 0.00009	0.013			20.4	30.3	0.218	1.02
SW-08a	ALS	2023-05-21	WP2309398	52.5	56	0.509	1.23	<0.000050	0.00027	0.0017	0.003	4.27	4.68	0.0559	0.0694
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005												
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005												
SW-08a	ALS	2023-05-21	WP2309398-005												
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008												
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008												
SW-08a	ALS	2023-06-05	WP2310937-002	82.5	88	0.618	1.83	0.000082	0.000475	0.0033	0.0049	6.46	7.23	0.0521	0.0688
SW-08a	ALS	2023-07-16	WP2316171	108	110	0.556	0.948	0.000202	0.000331	0.0034	0.0047	7.85	8.32	0.209	0.243
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004												
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005												
SW-08a	ALS	2023-07-16	WP2316171-008												
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003												
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002												
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002												
SW-08a	ALS	2023-08-06	WP2318603-007	87.9	87.6	0.521	0.656	0.000125	0.00021	0.0027	0.003	6.36	5.75	0.15	0.156
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004												
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005												
SW-08a	ALS	2023-09-04	WP2322079-004	121	128	0.946	1.09	0.000131	0.000154	0.0041	0.0042	8.89	9.45	0.392	0.458
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005												
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004												
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005												
SW-08a	ALS	2023-10-11	WP2326289-004	106	110	0.277	3.4	0.000091	0.00132	0.003	0.0051	8.03	8.53	0.0692	0.108
SW-08a	ALS	2023-11-04	WP2328799	80.2	82.6	0.686	1.34	0.000089	0.000277	0.0024	0.0031	6.38	6.73	0.0905	0.101
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007												
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007												
SW-08a	ALS	2023-11-04	WP2328799-005												
SW-08a	ALS	2023-12-07	WP2332136	53.7	52.3	0.182	0.398	0.000062	0.000116	0.0018	0.0014	4.38	4.1	0.017	0.0185
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003												
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003												
SW-08a	ALS	2023-12-07	WP2332136-002												
SW-08a	ALS	2023-12-07	WP2332136-005	51.8	52.1	0.161	0.386	<0.000050	0.000114	0.0017	0.0013	4.1	4.05	0.0161	0.0184
SW-08a	ALS	2024-05-21	WP2412814	45.6	58	0.44	7.97	0.000105	0.00228	0.0018	0.0101	3.75	5.85	0.0212	0.0858
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014												
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014												
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013												
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013												
SW-08a	ALS	2024-06-19	WP2415611	43.3	52.3	0.674	2.84	0.000132	0.0012	0.0026	0.0048	3.3	4.52	0.0358	0.0744
SW-08a	Flett	2024-06-19	TMWATR070224CH1												
SW-08a	Flett	2024-06-19	TMWATR070224CH1												
SW-08a	ALS	2024-07-09	WP2417255	36	34.6	0.41	0.533	0.000064	0.00008	0.0014	0.0017	2.99	2.85	0.0321	0.0434
SW-08a	Flett	2024-07-09	TMWATR072524CH2												
SW-08a	Flett	2024-07-09	MTWATR072424JS2												
SW-08a	ALS	2024-08-04	WP2419020												
SW-08a	ALS	2024-08-04	WP2419020	43.1	45.7	0.447	0.733	0.000143	0.000201	0.0023	0.0042	3.32	3.57	0.0492	0.061
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22	< 0.00001		< 0.00001		0.00016	0.00018	0.0007	0.0009	< 0.06	< 0.06	< 0.03	
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011				4.91								
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010		0.112										
SW-08a	SGS	2022-07-26	CA15458-JUL22	< 0.00001		< 0.00001		0.00014	0.0005	0.0018	0.0033	< 0.06	< 0.06	< 0.03	
SW-08a	SGS	2022-09-19	CA12949-SEP22			< 0.00001		0.00265	0.00218	0.0019	0.0017	< 0.06	< 0.06	< 0.03	
SW-08a	SGS	2022-11-10	CA15304-NOV22	< 0.00001		< 0.00001		0.00941	0.0187	0.0008	0.0016	0.09	0.09	< 0.03	
SW-08a	SGS	2023-02-09	CA15284-FEB23	0.00002		0.00002		0.005	0.00327	0.0006	0.0347	0.09	0.09	< 0.03	
SW-08a	ALS	2023-05-21	WP2309398	0.0000054		0.0000064		0.000367	0.000404	0.00133	0.00212	0.0735	0.0735	<0.0010	
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005				7.15								
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005		0.338										
SW-08a	ALS	2023-05-21	WP2309398-005												
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008		0.661										
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008				7.33								
SW-08a	ALS	2023-06-05	WP2310937-002	0.0000065		0.0000077		0.000643	0.000656	0.00193	0.003	0.0897	0.0909	0.0012	
SW-08a	ALS	2023-07-16	WP2316171	<0.0000050		<0.0000050		0.000752	0.000779	0.00102	0.00135	0.005	<0.0051	<0.0010	
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004				2.74								
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005		0.32										
SW-08a	ALS	2023-07-16	WP2316171-008												
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003		0.525										
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002				2.94								
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002		0.534										
SW-08a	ALS	2023-08-06	WP2318603-007	<0.0000050		<0.0000050		0.000419	0.000414	0.00114	0.00126	<0.0050	<0.0051	0.001	
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004				3.26								
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005		0.75										
SW-08a	ALS	2023-09-04	WP2322079-004	<0.0000050		<0.0000050		0.000717	0.000713	0.00138	0.00156	<0.0050	<0.0051	<0.0010	
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005				8.78								
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004				8.89								
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005		0.636										
SW-08a	ALS	2023-10-11	WP2326289-004	<0.0000050		<0.0000050		0.000527	0.00066	0.00164	0.00454	0.493	0.517	0.0242	
SW-08a	ALS	2023-11-04	WP2328799	<0.0000050		<0.0000050		0.000895	0.000377	0.00135	0.00185	0.166	0.166	<0.0010	
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007				5								
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007		0.25										
SW-08a	ALS	2023-11-04	WP2328799-005												
SW-08a	ALS	2023-12-07	WP2332136	<0.0000050		<0.0000050		0.000241	0.000223	0.00054	0.0007	0.0537	0.0555	0.0018	
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003				1.06								
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003		0.04										
SW-08a	ALS	2023-12-07	WP2332136-002												
SW-08a	ALS	2023-12-07	WP2332136-005	<0.0000050		<0.0000050		0.000241	0.000229	<0.00050	0.0007	0.0531	0.0554	0.0023	
SW-08a	ALS	2024-05-21	WP2412814	0.0000068		0.0000167		0.000248	0.000332	0.00166	0.00935	0.0684	0.0684	<0.0010	<0.03
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014				15.2								
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014		0.324										
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013				15.6								
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013		0.33										
SW-08a	ALS	2024-06-19	WP2415611	0.0000117		0.0000184		0.000252	0.000114	0.00193	0.00472	0.0214	0.0214	<0.0010	
SW-08a	Flett	2024-06-19	TMWATR070224CH1				18.4								
SW-08a	Flett	2024-06-19	TMWATR070224CH1				18.6								
SW-08a	ALS	2024-07-09	WP2417255	<0.0000050		<0.0000050		0.000167	0.000156	0.00068	0.00053	0.0194	0.0194	<0.0010	
SW-08a	Flett	2024-07-09	TMWATR072524CH2				3.15								
SW-08a	Flett	2024-07-09	MTWATR072424JS2		0.196										
SW-08a	ALS	2024-08-04	WP2419020												
SW-08a	ALS	2024-08-04	WP2419020	<0.0000050		<0.0000050		0.00024	0.000234	0.00069	0.00097	0.138	0.156	0.0177	<0.030
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003				2.44								

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22	0.012			0.032	0.936	1.06				0.0001	0.00007	1.36
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011												
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010												
SW-08a	SGS	2022-07-26	CA15458-JUL22	0.034			0.07	1.12	1.47				0.0001	0.00012	2.37
SW-08a	SGS	2022-09-19	CA12949-SEP22	0.037			0.044	4.49	3.95				0.00023	0.00019	10.1
SW-08a	SGS	2022-11-10	CA15304-NOV22	0.055			0.102	1.02	1.16				0.00327	0.00332	0.83
SW-08a	SGS	2023-02-09	CA15284-FEB23	0.026			1.1	6.23	10.3				< 0.00004	0.00033	6.45
SW-08a	ALS	2023-05-21	WP2309398	<0.030	0.042	0.0347	<0.050	0.925	1.02		0.0012	0.00241	0.000106	0.000135	4.8
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005												
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005												
SW-08a	ALS	2023-05-21	WP2309398-005				0.042								
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008												
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008												
SW-08a	ALS	2023-06-05	WP2310937-002	<0.030		0.0605	0.056	1.51	1.69		0.00175	0.00397	0.000204	0.000184	5.81
SW-08a	ALS	2023-07-16	WP2316171	0.03	0.074	0.0618	0.074	2.02	2.23		0.00264	0.0033	0.000124	0.000104	3.46
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004												
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005												
SW-08a	ALS	2023-07-16	WP2316171-008												
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003												
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002												
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002												
SW-08a	ALS	2023-08-06	WP2318603-007	<0.030		0.0464	0.042	1.53	1.43		0.00254	0.00281	0.000125	0.000129	3.75
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004												
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005												
SW-08a	ALS	2023-09-04	WP2322079-004	0.043		0.052	0.061	2.42	2.33		0.0033	0.00328	0.000124	0.000129	3.86
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005												
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004												
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005												
SW-08a	ALS	2023-10-11	WP2326289-004	<0.030		0.102	0.08	3.03	3.25		0.00262	0.00743	0.000129	0.000193	5.82
SW-08a	ALS	2023-11-04	WP2328799	<0.030	0.038	0.0406	<0.050	1.27	1.46		0.0015	0.00272	0.000136	0.000125	6.94
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007												
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007												
SW-08a	ALS	2023-11-04	WP2328799-005				0.038								
SW-08a	ALS	2023-12-07	WP2332136	<0.030	<0.030	0.0242	<0.050	1.29	1.29		0.00213	0.00231	0.000112	0.000102	2.84
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003												
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003												
SW-08a	ALS	2023-12-07	WP2332136-002				<0.030								
SW-08a	ALS	2023-12-07	WP2332136-005	<0.030		0.0231	<0.030	1.27	1.29		0.00194	0.0023	0.0001	0.00012	2.81
SW-08a	ALS	2024-05-21	WP2412814	<0.030	0.103	0.0976	0.103	0.727	2.62		0.00111	0.0178	0.000147	0.000275	5.07
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014												
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014												
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013												
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013												
SW-08a	ALS	2024-06-19	WP2415611	<0.030	0.061	0.122	0.061	0.495	0.827		0.00086	0.00489	0.000275	0.000139	5.34
SW-08a	Flett	2024-06-19	TMWATR070224CH1												
SW-08a	Flett	2024-06-19	TMWATR070224CH1												
SW-08a	ALS	2024-07-09	WP2417255	<0.030	<0.030	0.0423	<0.050	0.799	0.802		0.00179	0.0018	0.000125	0.000125	1.3
SW-08a	Flett	2024-07-09	TMWATR072524CH2												
SW-08a	Flett	2024-07-09	MTWATR072424JS2												
SW-08a	ALS	2024-08-04	WP2419020												
SW-08a	ALS	2024-08-04	WP2419020	<0.050	0.041	0.0649	<0.050	0.914	0.981		0.00197	0.00238	0.000085	0.000132	1.66
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22	1.82	<0.00005	< 0.00005	1.08	1.17	37	7	0.0137	0.015		< 1	< 2	
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011													
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010													
SW-08a	SGS	2022-07-26	CA15458-JUL22	5.54	< 0.00005	< 0.00005	1.33	1.51	60	81	0.0238	0.0274		2	< 2	
SW-08a	SGS	2022-09-19	CA12949-SEP22	7.72	< 0.00005	< 0.00005	12.9	11	226	13	0.172	0.148	7	6	25	
SW-08a	SGS	2022-11-10	CA15304-NOV22	1.93	< 0.00005	0.00005	1.49	1.61	77	8	0.0261	0.0277	< 1	1	< 2	
SW-08a	SGS	2023-02-09	CA15284-FEB23	59.2	< 0.00005	0.00027	15.3	15.7	346	206	0.195	0.248	12	12	46	
SW-08a	ALS	2023-05-21	WP2309398	6.24	<0.000010	<0.000010	3.09	3.14	113	38.3	0.0336	0.0354	1.3	1.28	3.3	<0.00020
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005													
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005													
SW-08a	ALS	2023-05-21	WP2309398-005													
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008													
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008													
SW-08a	ALS	2023-06-05	WP2310937-002	8.54	<0.000010	0.000016	4.98	5.28	152	25.4	0.0541	0.0586	1.91	2.24	5.37	<0.00020
SW-08a	ALS	2023-07-16	WP2316171	4.09	<0.000010	0.000014	4.26	4.64	135	7.8	0.064	0.0632	1.3	1.23	2.79	<0.00020
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004													
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005													
SW-08a	ALS	2023-07-16	WP2316171-008													
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003													
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002													
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002													
SW-08a	ALS	2023-08-06	WP2318603-007	3.63	<0.000010	0.000013	3.12	2.87	142	6.4	0.0515	0.0485	0.72	0.79	1.49	<0.00020
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004													
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005													
SW-08a	ALS	2023-09-04	WP2322079-004	3.97	<0.000010	<0.000010	6.47	6.85	188	2.3	0.0761	0.0679	1.76	1.7	3.52	<0.00020
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005													
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004													
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005													
SW-08a	ALS	2023-10-11	WP2326289-004	10.3	<0.000010	0.000046	4.01	4.22	188	40.6	0.0618	0.0681	1.44	1.32	2.84	<0.00020
SW-08a	ALS	2023-11-04	WP2328799	8.11	<0.000010	0.000014	5.52	5.41	149	11.9	0.0518	0.0537	3.11	3	8.06	<0.00020
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007													
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007													
SW-08a	ALS	2023-11-04	WP2328799-005													
SW-08a	ALS	2023-12-07	WP2332136	3.26	<0.000010	0.000013	1.98	1.89	82.5	4.5	0.0314	0.0308	<0.50	<0.50	0.85	<0.00020
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003													
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003													
SW-08a	ALS	2023-12-07	WP2332136-002													
SW-08a	ALS	2023-12-07	WP2332136-005	3.22	<0.000010	0.000014	1.94	1.88	77.2	5	0.0312	0.0309	<0.50	<0.50	0.86	<0.00020
SW-08a	ALS	2024-05-21	WP2412814	25	<0.000010	0.000052	2.88	3.18	176	39.1	0.0267	0.0381	0.88	0.92	2.24	<0.00020
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014													
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014													
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013													
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013													
SW-08a	ALS	2024-06-19	WP2415611	8.61	<0.000010	<0.000010	2.23	2.5	212	63.7	0.0292	0.034	<0.50	0.58	0.76	<0.00020
SW-08a	Flett	2024-06-19	TMWATR070224CH1													
SW-08a	Flett	2024-06-19	TMWATR070224CH1													
SW-08a	ALS	2024-07-09	WP2417255	1.3	<0.000010	<0.000010	1.44	1.37	73.2	6.3	0.023	0.0219	<0.50	<0.50	0.52	<0.00020
SW-08a	Flett	2024-07-09	TMWATR072524CH2													
SW-08a	Flett	2024-07-09	MTWATR072424JS2													
SW-08a	ALS	2024-08-04	WP2419020													
SW-08a	ALS	2024-08-04	WP2419020	2	<0.000010	<0.000010	1.56	1.67	69	8.6	0.0274	0.0288	0.58	0.64	0.77	<0.00020
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22		< 0.000005	0.000005			< 0.00006	0.00009			18	< 0.00002	0.00003	0.000145
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011													
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010													
SW-08a	SGS	2022-07-26	CA15458-JUL22		0.000018	0.000036			0.00011	0.00016			18	0.00023	0.00036	0.000247
SW-08a	SGS	2022-09-19	CA12949-SEP22		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00242	0.01898	19	0.00267	0.00226	0.011964
SW-08a	SGS	2022-11-10	CA15304-NOV22		0.000005	0.000014			< 0.00006	< 0.00006	0.00575	0.0313	19	0.00031	0.00053	0.000298
SW-08a	SGS	2023-02-09	CA15284-FEB23		< 0.000005	0.000397			< 0.00006	0.00014	0.00043	1.53	4	0.00129	0.00072	0.0232
SW-08a	ALS	2023-05-21	WP2309398	<0.00020	<0.000010	0.000012	0.00016	0.00022	<0.00010	<0.00010	0.0045	0.0348		0.00015	0.00016	0.000645
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005													
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005													
SW-08a	ALS	2023-05-21	WP2309398-005													
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008													
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008													
SW-08a	ALS	2023-06-05	WP2310937-002	<0.00020	<0.000010	0.000017	0.00019	0.00028	<0.00010	<0.00010	0.00518	0.0556		0.00034	0.00032	0.000741
SW-08a	ALS	2023-07-16	WP2316171	<0.00020	<0.000010	<0.000010	0.00011	0.00013	<0.00010	<0.00010	0.00532	0.0178		0.00083	0.00081	0.000912
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004													
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005													
SW-08a	ALS	2023-07-16	WP2316171-008													
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003													
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002													
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002													
SW-08a	ALS	2023-08-06	WP2318603-007	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00473	0.00993		0.00061	0.00059	0.000323
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004													
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005													
SW-08a	ALS	2023-09-04	WP2322079-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00318	0.00464		0.00042	0.00048	0.00057
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005													
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004													
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005													
SW-08a	ALS	2023-10-11	WP2326289-004	<0.00020	<0.000010	0.000034	0.00019	0.00041	<0.00010	<0.00010	0.00706	0.123		0.00033	0.00031	0.000583
SW-08a	ALS	2023-11-04	WP2328799	0.0003	<0.000010	0.000011	<0.00010	0.00016	<0.00010	<0.00010	0.00397	0.0255		0.00018	0.00022	0.000264
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007													
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007													
SW-08a	ALS	2023-11-04	WP2328799-005													
SW-08a	ALS	2023-12-07	WP2332136	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00108	0.0076		<0.00010	<0.00010	0.000158
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003													
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003													
SW-08a	ALS	2023-12-07	WP2332136-002													
SW-08a	ALS	2023-12-07	WP2332136-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00079	0.00801		<0.00010	<0.00010	0.00015
SW-08a	ALS	2024-05-21	WP2412814	<0.00020	<0.000010	0.000095	0.00025	0.00165	<0.00010	0.00025	0.01	0.408		<0.00010	0.00019	0.000146
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014													
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014													
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013													
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013													
SW-08a	ALS	2024-06-19	WP2415611	<0.00020	<0.000010	0.00003	0.00035	0.00074	<0.00010	<0.00010	0.0109	0.055		<0.00010	<0.00010	0.00018
SW-08a	Flett	2024-06-19	TMWATR070224CH1													
SW-08a	Flett	2024-06-19	TMWATR070224CH1													
SW-08a	ALS	2024-07-09	WP2417255	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00217	0.00518		<0.00010	<0.00010	0.000201
SW-08a	Flett	2024-07-09	TMWATR072524CH2													
SW-08a	Flett	2024-07-09	MTWATR072424JS2													
SW-08a	ALS	2024-08-04	WP2419020													
SW-08a	ALS	2024-08-04	WP2419020	<0.00020	<0.000010	<0.000010	<0.00010	0.0001	<0.00010	<0.00010	0.00255	0.0108		<0.00010	<0.00010	0.000222
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-08a	SGS	2022-06-07	CA15258-JUN22	0.000178	0.00068	0.00116	0.00024	0.00027	< 0.002	< 0.002	< 0.002	< 0.002
SW-08a	Flett	2022-07-21	TMWATR091622ZB1-011									
SW-08a	Flett	2022-07-21	MTWATR092022JS1-010									
SW-08a	SGS	2022-07-26	CA15458-JUL22	0.00074	0.00329	0.00634	0.0008	0.00092	0.004	0.007	< 0.002	< 0.002
SW-08a	SGS	2022-09-19	CA12949-SEP22	0.009459	0.00098	0.00134	0.00037	0.00044	0.005	0.003	< 0.002	< 0.002
SW-08a	SGS	2022-11-10	CA15304-NOV22	0.000417	0.00081	0.00209	0.00027	0.00043	< 0.002	0.003	< 0.002	< 0.002
SW-08a	SGS	2023-02-09	CA15284-FEB23	0.0289	0.00208	0.0616	0.00016	0.0119	< 0.002	0.099	< 0.002	0.006
SW-08a	ALS	2023-05-21	WP2309398	0.00067	0.00101	0.00216			0.0029	0.005	0.0006	0.00079
SW-08a	Flett	2023-05-21	TMWATR060923ZB1-005									
SW-08a	Flett	2023-05-21	MTWATR060823JS1-005									
SW-08a	ALS	2023-05-21	WP2309398-005									
SW-08a	Flett	2023-06-05	MTWATR062123JS3-008									
SW-08a	Flett	2023-06-05	TMWATR062023ZB1-008									
SW-08a	ALS	2023-06-05	WP2310937-002	0.000828	0.00161	0.00372			0.0048	0.0082	0.00095	0.00124
SW-08a	ALS	2023-07-16	WP2316171	0.000854	0.0013	0.00214			0.0012	<0.0030	0.00049	0.00049
SW-08a	Flett	2023-07-16	TMWATR080423ZB1-004									
SW-08a	Flett	2023-07-16	MTWATR080223JS1-005									
SW-08a	ALS	2023-07-16	WP2316171-008									
SW-08a	Flett	2023-08-06	MTWATR082323JS1-003									
SW-08a	Flett	2023-08-06	TMWATR082323ZB1-002									
SW-08a	Flett	2023-08-06	MTWATR082323JS1-002									
SW-08a	ALS	2023-08-06	WP2318603-007	0.000329	0.00107	0.0013			<0.0010	<0.0030	0.00047	0.00042
SW-08a	Flett	2023-09-04	TMWATR091823ZB1-004									
SW-08a	Flett	2023-09-04	MTWATR091323JS2-005									
SW-08a	ALS	2023-09-04	WP2322079-004	0.000613	0.00109	0.00142			0.0016	<0.0030	0.00059	0.00041
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-005									
SW-08a	Flett	2023-10-11	TMWATR110223ZB1-004									
SW-08a	Flett	2023-10-11	MTWATR111923JS1-005									
SW-08a	ALS	2023-10-11	WP2326289-004	0.00064	0.00086	0.00631			<0.0010	0.0085	0.00091	0.00156
SW-08a	ALS	2023-11-04	WP2328799	0.000304	0.0009	0.00208			0.0058	0.0081	0.0006	0.00077
SW-08a	Flett	2023-11-04	TMWATR110923ZB2-007									
SW-08a	Flett	2023-11-04	MTWATR112023JS1-007									
SW-08a	ALS	2023-11-04	WP2328799-005									
SW-08a	ALS	2023-12-07	WP2332136	0.00018	<0.00050	0.00099			<0.0010	<0.0030	<0.00030	0.00021
SW-08a	Flett	2023-12-07	TMWATR121923ZB1-003									
SW-08a	Flett	2023-12-07	MTWATR122023JS1-003									
SW-08a	ALS	2023-12-07	WP2332136-002									
SW-08a	ALS	2023-12-07	WP2332136-005	0.000174	<0.00050	0.00097			<0.0010	<0.0030	<0.00030	<0.00020
SW-08a	ALS	2024-05-21	WP2412814	0.000381	0.00127	0.0182			0.0025	0.0221	0.00093	0.00832
SW-08a	Flett	2024-05-21	TMWATR061924CH1-014									
SW-08a	Flett	2024-05-21	MTWATR061024JS1-014									
SW-08a	Flett	2024-05-21	TMWATR061924CH1-013									
SW-08a	Flett	2024-05-21	MTWATR061024JS1-013									
SW-08a	ALS	2024-06-19	WP2415611	0.000279	0.00141	0.00579			0.0032	0.012	0.00127	0.00276
SW-08a	Flett	2024-06-19	TMWATR070224CH1									
SW-08a	Flett	2024-06-19	TMWATR070224CH1									
SW-08a	ALS	2024-07-09	WP2417255	0.000192	0.00074	0.00092			<0.0010	<0.0030	0.00042	0.00037
SW-08a	Flett	2024-07-09	TMWATR072524CH2									
SW-08a	Flett	2024-07-09	MTWATR072424JS2									
SW-08a	ALS	2024-08-04	WP2419020									
SW-08a	ALS	2024-08-04	WP2419020	0.000223	0.00089	0.00131			<0.0010	<0.0030	0.00041	0.00046
SW-08a	Flett	2024-08-04	TMWATR091124CH1-003									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002											
SW-08a	ALS	2024-09-03	WP2421465											
SW-08a	ALS	2024-09-03	WP2421465	7.08	7.52	13.7	3.1	39.8	<1.0	<1.0	<1.0	39.8	0.0455	0.332
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012											
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014											
SW-08a	ALS	2024-10-02	WP2423347	7.3	7.8	9.9	3.6	103	<1.0	<1.0	<1.0	103	0.174	0.246
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011											
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020											
SW-08a	ALS	2024-11-02	WP2425500	6.91	7.98	-2.5	<2.0	116	<1.0	<1.0	<1.0	116	0.0671	0.114
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003											
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002											
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004											
SW-08a	ALS	2024-12-01	WP2426900	7.3	7.49	0	3.2	58.1	<1.0	<1.0	<1.0	58.1	0.226	0.425
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009											
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010											
SW-09	SGS	2022-06-15	CA14382-JUN22		7.12		<2					25		3.2
SW-09	SGS	2022-07-27		6.59	7.49	19.2	< 2					34		6.95
SW-09	SGS	2022-08-23	CA15433-AUG22	6.45	7.13	21.1	< 2					32		0.553
SW-09	SGS	2022-09-13	CA15263-SEP22	6.7	7.35	15.2	< 2					36	0.065	0.522
SW-09	SGS	2022-11-09	CA15304-NOV22	7.38	7.32	1.4	< 2					42		0.54
SW-09	ALS	2023-05-26	WP2309861-001	7.59	7.63	17.8	3.2	36	<1.0	<1.0	<1.0	36	0.0658	0.468
SW-09	ALS	2023-06-10	WP2311799-003	7.58	7.65	18	3	49.1	<1.0	<1.0	<1.0	49.1	0.0783	1.36
SW-09	ALS	2023-07-18	WP2316178-004	7.73	7.95	18	<2.0	93	<1.0	<1.0	<1.0	93	0.069	0.219
SW-09	ALS	2023-08-12	WP2319515-006	6.92	7.68	19.3	4.3	80	<1.0	<1.0	<1.0	80	0.0949	0.198
SW-09	ALS	2023-09-02	WP2322077-004	7.28	7.71	16.5	4.8	107	<1.0	<1.0	<1.0	107	0.0811	0.65
SW-09	ALS	2023-10-08	WP2325933-003	7.19	7.43	8.9	9.9	105	<1.0	<1.0	<1.0	105	1.44	11.8
SW-09	ALS	2023-11-02	WP2328687	7.57	7.64	0.5	2.7	39.2	<1.0	<1.0	<1.0	39.2	0.0253	0.229
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010											
SW-09	Flett	2023-11-02	MTWATR112023JS1-010											
SW-09	ALS	2023-11-02	WP2328687-006											
SW-09	ALS	2024-05-21	WP2412814	7.36	7.48	13.9	<2.0	34.5	<1.0	<1.0	<1.0	34.5	0.0746	0.57
SW-09	ALS	2024-06-17	WP2415380	7.17	7.28	18.7	2.6	30.2	<1.0	<1.0	<1.0	30.2	0.0952	0.289
SW-09	Flett	2024-06-17	TMWATR070224CH1											
SW-09	ALS	2024-07-07	WP2416896	6.72	7.47	22.3	2.6	30.8	<1.0	<1.0	<1.0	30.8	0.0804	0.185
SW-09	ALS	2024-08-10	WP2419573	6.9	7.4	16.2	3.8	36.8	<1.0	<1.0	<1.0	36.8	0.0984	0.471
SW-09	ALS	2024-09-08	WP2421728	7.04	7.5	10.5	5.5	44.1	<1.0	<1.0	<1.0	44.1	0.0447	0.518
SW-09	Flett	2024-09-08	MTWATR100124JS1-004											
SW-09	Flett	2024-09-08	TMWATR092924CH1-003											
SW-09	Flett	2024-09-08	MTWATR100124JS1-003											
SW-09	ALS	2024-10-02	WP2423347	7.52	7.57	9.2	4.3	37.9	<1.0	<1.0	<1.0	37.9	0.0565	0.348
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004											
SW-09	Flett	2024-10-02	MTWATR111324JS2-003											
SW-09	ALS	2024-11-04	WP2425609	7.3	7.57	4.3	<2.0	45.5	<1.0	<1.0	<1.0	45.5	0.0376	0.212
SW-09	Flett	2024-11-04	MTWATR120524JS1-006											
SW-09	Flett	2024-11-04	TMWATR112524CH1-007											
SW-09	ALS	2024-12-02	WP2426974	7.27	7.39	0.1	2.4	37	<1.0	<1.0	<1.0	37	0.0628	0.153
SW-09	Flett	2024-12-02	TMWATR012125CH1-004											
SW-09	Flett	2024-12-02	MTWATR121924JS1-004											
SW-10	SGS	2022-06-15	CA14382-JUN22		7.07		<2					29		0.205
SW-10	SGS	2022-07-27		6.84	7.15	19.4	< 2					51		0.303
SW-10	SGS	2022-08-23	CA15433-AUG22	6.1	7	18.9	< 2					66		0.223
SW-10	SGS	2022-09-13	CA15263-SEP22	6.78	7.52	14.7	< 2					66	0.061	0.122

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002												
SW-08a	ALS	2024-09-03	WP2421465												
SW-08a	ALS	2024-09-03	WP2421465			<0.0010	0.0376	<0.00010	<0.00010	0.00339	0.00354	0.00929	0.0114	<0.000020	0.000023
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012												
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014												
SW-08a	ALS	2024-10-02	WP2423347			<0.0010	0.0147	0.00012	0.00015	0.00431	0.00449	0.0181	0.0189	0.000021	0.000026
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011												
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020												
SW-08a	ALS	2024-11-02	WP2425500			<0.0010	0.285	<0.00010	<0.00010	0.00242	0.00256	0.0154	0.016	<0.000020	<0.000020
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003												
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002												
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004												
SW-08a	ALS	2024-12-01	WP2426900			<0.0010	0.0359	0.00014	0.00015	0.00302	0.00313	0.0118	0.0138	<0.000020	0.000021
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009												
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010												
SW-09	SGS	2022-06-15	CA14382-JUN22	0.09			< 0.1	< 0.0009	< 0.0009	0.0016	0.0025	0.00713	0.0314	0.000016	0.000093
SW-09	SGS	2022-07-27		0.097			< 0.1	< 0.0009	< 0.0009	0.0022	0.004	0.00745	0.0598	< 0.000007	0.000199
SW-09	SGS	2022-08-23	CA15433-AUG22	0.058			< 0.1	< 0.0009	< 0.0009	0.0031	0.0032	0.01223	0.0144	0.00002	0.000022
SW-09	SGS	2022-09-13	CA15263-SEP22	0.04			0.1	< 0.0009	< 0.0009	0.0025	0.0028	0.0118	0.0139	0.000015	0.000024
SW-09	SGS	2022-11-09	CA15304-NOV22	0.049			< 0.1	< 0.0009	< 0.0009	0.0021	0.0026	0.0106	0.0152	0.000048	0.000052
SW-09	ALS	2023-05-26	WP2309861-001		0.043	<0.0010		<0.00010	<0.00010	0.00164	0.00187	0.00861	0.0126	<0.000020	0.000031
SW-09	ALS	2023-06-10	WP2311799-003		0.046	<0.0010		<0.00010	0.00014	0.00234	0.00342	0.0113	0.028	<0.000020	0.000056
SW-09	ALS	2023-07-18	WP2316178-004		0.013	<0.0010		<0.00010	<0.00010	0.00314	0.00339	0.0152	0.0181	<0.000020	<0.000020
SW-09	ALS	2023-08-12	WP2319515-006		<0.010	<0.0010		<0.00010	<0.00010	0.00351	0.00368	0.0168	0.0182	<0.000020	0.00002
SW-09	ALS	2023-09-02	WP2322077-004		0.012	<0.0010		<0.00010	<0.00010	0.00284	0.00331	0.0232	0.0299	<0.000020	0.000025
SW-09	ALS	2023-10-08	WP2325933-003		0.0406	<0.0010		0.0001	0.00015	0.00352	0.00695	0.0527	0.13	0.000085	0.000327
SW-09	ALS	2023-11-02	WP2328687			<0.0010	0.0178	<0.00010	<0.00010	0.00142	0.00148	0.00976	0.0104	<0.000020	<0.000020
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010												
SW-09	Flett	2023-11-02	MTWATR112023JS1-010												
SW-09	ALS	2023-11-02	WP2328687-006		0.0178										
SW-09	ALS	2024-05-21	WP2412814			<0.0010	0.0449	<0.00010	<0.00010	0.0018	0.00212	0.00758	0.0124	<0.000020	0.000024
SW-09	ALS	2024-06-17	WP2415380			<0.0010	0.0205	<0.00010	<0.00010	0.002	0.0023	0.00916	0.0113	<0.000020	<0.000020
SW-09	Flett	2024-06-17	TMWATR070224CH1												
SW-09	ALS	2024-07-07	WP2416896			<0.0010	0.037	<0.00010	<0.00010	0.00256	0.00274	0.0101	0.0109	<0.000020	0.000022
SW-09	ALS	2024-08-10	WP2419573			<0.0010	0.0856	<0.00010	<0.00010	0.00345	0.00352	0.00989	0.0135	0.000022	0.000029
SW-09	ALS	2024-09-08	WP2421728			<0.0010	0.0284	<0.00010	<0.00010	0.00319	0.00343	0.00992	0.0145	<0.000020	0.000024
SW-09	Flett	2024-09-08	MTWATR100124JS1-004												
SW-09	Flett	2024-09-08	TMWATR092924CH1-003												
SW-09	Flett	2024-09-08	MTWATR100124JS1-003												
SW-09	ALS	2024-10-02	WP2423347			<0.0010	0.0136	<0.00010	<0.00010	0.00253	0.00278	0.00922	0.0116	<0.000020	<0.000020
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004												
SW-09	Flett	2024-10-02	MTWATR111324JS2-003												
SW-09	ALS	2024-11-04	WP2425609			<0.0010	0.0176	<0.00010	<0.00010	0.00187	0.00207	0.0144	0.0155	<0.000020	<0.000020
SW-09	Flett	2024-11-04	MTWATR120524JS1-006												
SW-09	Flett	2024-11-04	TMWATR112524CH1-007												
SW-09	ALS	2024-12-02	WP2426974			<0.0010	0.0278	<0.00010	<0.00010	0.00202	0.00129	0.0116	0.00912	<0.000020	<0.000020
SW-09	Flett	2024-12-02	TMWATR012125CH1-004												
SW-09	Flett	2024-12-02	MTWATR121924JS1-004												
SW-10	SGS	2022-06-15	CA14382-JUN22	0.106			< 0.1	< 0.0009	< 0.0009	0.0034	0.0037	0.0109	0.0125	0.000011	0.000017
SW-10	SGS	2022-07-27		0.11			0.1	< 0.0009	< 0.0009	0.0029	0.0035	0.0121	0.0139	< 0.000007	< 0.000007
SW-10	SGS	2022-08-23	CA15433-AUG22	0.109			< 0.1	< 0.0009	< 0.0009	0.004	0.0042	0.01232	0.01428	0.000015	0.000016
SW-10	SGS	2022-09-13	CA15263-SEP22	0.053			< 0.1	< 0.0009	< 0.0009	0.0036	0.0035	0.0117	0.0125	0.000016	0.000017

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002													
SW-08a	ALS	2024-09-03	WP2421465													
SW-08a	ALS	2024-09-03	WP2421465	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.5	13.2	22.1	<0.000010	0.000038		0.33
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012													
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014													
SW-08a	ALS	2024-10-02	WP2423347	<0.000050	<0.000050	0.015	0.017	0.0000055	0.0000102	30.6	29	41.7	<0.000010	0.000011		5.2
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011													
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020													
SW-08a	ALS	2024-11-02	WP2425500	<0.000050	<0.000050	0.014	0.015	<0.0000050	0.0000058	30.6	32	25.8	<0.000010	<0.000010		6.02
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003													
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002													
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004													
SW-08a	ALS	2024-12-01	WP2426900	<0.000050	<0.000050	<0.010	<0.010	0.000007	0.0000078	18.6	19.1	36	<0.000010	0.000036		3.06
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009													
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010													
SW-09	SGS	2022-06-15	CA14382-JUN22	< 0.00001	0.00002	0.006	0.016	0.000006	0.000017	7.56	8.62	18			< 8	3
SW-09	SGS	2022-07-27		< 0.00001	0.00006	0.008	0.01	0.000018	0.00003	10.4	11	24			49	3
SW-09	SGS	2022-08-23	CA15433-AUG22	< 0.00001	< 0.00001	0.007	0.009	< 0.000004	0.000012	9.49	10.4	17			48	< 1
SW-09	SGS	2022-09-13	CA15263-SEP22	< 0.00001	< 0.00001	0.006	0.006	< 0.000003	0.000003	11.2	11.1	22			51	< 1
SW-09	SGS	2022-11-09	CA15304-NOV22	< 0.00001	0.00001	0.007	0.01	0.000199	0.000174	11.5	11.9	18			50	< 1
SW-09	ALS	2023-05-26	WP2309861-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000102	10.5	10.9	18.6	<0.000010	0.000052		0.33
SW-09	ALS	2023-06-10	WP2311799-003	<0.000050	<0.000050	<0.100	<0.010	0.0000067	0.0000174	15.2	16.8	27.2	<0.000010	0.000164		<5.00
SW-09	ALS	2023-07-18	WP2316178-004	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000064	25.7	27.1	25.9	<0.000010	0.000017		0.9
SW-09	ALS	2023-08-12	WP2319515-006	<0.000050	<0.000050	<0.010	0.012	<0.0000050	<0.0000050	22.3	22.2	23.7	<0.000010	0.000013		0.92
SW-09	ALS	2023-09-02	WP2322077-004	<0.000050	<0.000050	<0.010	<0.010	0.0000061	0.000007	29.2	29.1	18.2	<0.000010	0.000084		1.27
SW-09	ALS	2023-10-08	WP2325933-003	<0.000050	0.000113	0.013	0.015	0.0000244	0.0000577	29.4	28.8	31.5	0.000088	0.00128		6.29
SW-09	ALS	2023-11-02	WP2328687	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.9	11	17.1	<0.000010	0.000024		0.27
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010													
SW-09	Flett	2023-11-02	MTWATR112023JS1-010													
SW-09	ALS	2023-11-02	WP2328687-006													
SW-09	ALS	2024-05-21	WP2412814	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000054	10.1	10.3	19.6	<0.000010	0.000058		0.33
SW-09	ALS	2024-06-17	WP2415380	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000087	9.41	9.64	22.4	<0.000010	0.00003		0.21
SW-09	Flett	2024-06-17	TMWATR070224CH1													
SW-09	ALS	2024-07-07	WP2416896	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.42	9.53	27.4	<0.000010	0.000016		0.19
SW-09	ALS	2024-08-10	WP2419573	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000098	11.8	12.5	28	<0.000010	0.000042		0.41
SW-09	ALS	2024-09-08	WP2421728	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	13.6	13.6	19.9	<0.000010	0.000067		0.47
SW-09	Flett	2024-09-08	MTWATR100124JS1-004													
SW-09	Flett	2024-09-08	TMWATR092924CH1-003													
SW-09	Flett	2024-09-08	MTWATR100124JS1-003													
SW-09	ALS	2024-10-02	WP2423347	<0.000050	<0.000050	<0.010	<0.010	0.000005	0.0000073	11.4	11.6	26.2	<0.000010	0.000036		0.28
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004													
SW-09	Flett	2024-10-02	MTWATR111324JS2-003													
SW-09	ALS	2024-11-04	WP2425609	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12.8	13.1	19.7	<0.000010	0.000019		0.6
SW-09	Flett	2024-11-04	MTWATR120524JS1-006													
SW-09	Flett	2024-11-04	TMWATR112524CH1-007													
SW-09	ALS	2024-12-02	WP2426974	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.3	7.28	23	<0.000010	0.000014		0.32
SW-09	Flett	2024-12-02	TMWATR012125CH1-004													
SW-09	Flett	2024-12-02	MTWATR121924JS1-004													
SW-10	SGS	2022-06-15	CA14382-JUN22	< 0.00001	< 0.00001	0.007	0.01	0.00001	0.000014	9.03	9.44	26			13	1
SW-10	SGS	2022-07-27		< 0.00001	< 0.00001	0.009	0.009	0.000016	0.000008	14.5	15.7	32			72	1
SW-10	SGS	2022-08-23	CA15433-AUG22	< 0.00001	< 0.00001	0.007	0.011	< 0.000004	< 0.000003	15.3	17.5	34			79	1
SW-10	SGS	2022-09-13	CA15263-SEP22	< 0.00001	< 0.00001	0.005	0.006	< 0.000003	< 0.000003	18.6	19	33			97	< 1

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002													
SW-08a	ALS	2024-09-03	WP2421465	0.00029	0.00081											
SW-08a	ALS	2024-09-03	WP2421465	<0.00050	0.00081	0.0001	0.00025	85.4	0.00082	0.00118	<0.0010	<0.0010		<0.0010		
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012													
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014													
SW-08a	ALS	2024-10-02	WP2423347	0.00078	0.00094	0.00016	0.00019	220	0.0012	0.00135	<0.0010	<0.0010		0.0016		
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011													
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020													
SW-08a	ALS	2024-11-02	WP2425500	0.00048	0.00062	0.00016	0.0002	244	0.0005	0.00062	<0.0010	<0.0010		<0.0010		
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003													
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002													
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004													
SW-08a	ALS	2024-12-01	WP2426900	0.00095	0.00105	0.00024	0.00029	143	0.00148	0.00133	<0.0010	<0.0010		<0.0010		
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009													
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010													
SW-09	SGS	2022-06-15	CA14382-JUN22	0.00014	0.00542	0.000054	0.00105	55	0.0012	0.0041			< 0.01			< 0.06
SW-09	SGS	2022-07-27		0.00061	0.0129	0.000142	0.00246	66	0.0022	0.0084			< 0.01			0.06
SW-09	SGS	2022-08-23	CA15433-AUG22	0.001	0.00128	0.000245	0.000322	64	0.0011	0.0014			< 0.01			< 0.06
SW-09	SGS	2022-09-13	CA15263-SEP22	0.00044	0.00127	0.000055	0.000299	71	0.0011	0.0014			< 0.01			< 0.06
SW-09	SGS	2022-11-09	CA15304-NOV22	0.00157	0.00185	0.000148	0.000318	84	0.0012	0.0015	< 0.005		< 0.01	< 0.01		0.06
SW-09	ALS	2023-05-26	WP2309861-001	0.00026	0.00104	<0.00010	0.00027	80.2	0.00092	0.00141	<0.0010	0.0012		<0.0010		
SW-09	ALS	2023-06-10	WP2311799-003	0.00052	0.00356	0.00016	0.00079	98.1	0.00132	0.003	<0.0010	0.0014		0.0016		
SW-09	ALS	2023-07-18	WP2316178-004	0.0003	0.00054	0.00015	0.00025	183	0.00112	0.00128	0.0014	0.0022		0.0022		
SW-09	ALS	2023-08-12	WP2319515-006	0.00043	0.00056	0.00017	0.00022	165	0.00134	0.00151	0.0011	0.0013		<0.0010		
SW-09	ALS	2023-09-02	WP2322077-004	0.00026	0.00121	0.00019	0.00046	206	0.00149	0.00195	<0.0010	<0.0010		<0.0010		
SW-09	ALS	2023-10-08	WP2325933-003	0.00315	6 0.0226	0.0012	0.0049	228	0.00429	0.0153	0.0019	0.0021		0.0015		
SW-09	ALS	2023-11-02	WP2328687	0.00011	0.0005	<0.00010	0.00018	80.1	0.00062	0.00083	<0.0010	<0.0010		<0.0010		
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010													
SW-09	Flett	2023-11-02	MTWATR112023JS1-010													
SW-09	ALS	2023-11-02	WP2328687-006													
SW-09	ALS	2024-05-21	WP2412814	0.00033	0.00118	<0.00010	0.00028	74.1	0.00082	0.00134	<0.0010	<0.0010		<0.0010		
SW-09	ALS	2024-06-17	WP2415380	0.0004	0.00083	0.0001	0.0003	66.8	0.00094	0.0013	<0.0010	<0.0010		<0.0010		
SW-09	Flett	2024-06-17	TMWATR070224CH1													
SW-09	ALS	2024-07-07	WP2416896	0.00044	0.00066	<0.00010	0.00017	67	0.00095	0.00114	0.0011	<0.0010		0.001		
SW-09	ALS	2024-08-10	WP2419573	0.00044	0.00107	0.00015	0.0003	81.1	0.00771	0.00143	<0.0010	<0.0010		<0.0010		
SW-09	ALS	2024-09-08	WP2421728	0.00031	0.00106	0.00012	0.0003	94.8	0.00092	0.00116	<0.0010	<0.0010		<0.0010		
SW-09	Flett	2024-09-08	MTWATR100124JS1-004													
SW-09	Flett	2024-09-08	TMWATR092924CH1-003													
SW-09	Flett	2024-09-08	MTWATR100124JS1-003													
SW-09	ALS	2024-10-02	WP2423347	0.00029	0.00077	<0.00010	0.00021	83.3	0.00082	0.00106	<0.0010	<0.0010		<0.0010		
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004													
SW-09	Flett	2024-10-02	MTWATR111324JS2-003													
SW-09	ALS	2024-11-04	WP2425609	0.00035	0.00061	<0.00010	0.00017	95.6	0.00082	0.00112	<0.0010	<0.0010		<0.0010		
SW-09	Flett	2024-11-04	MTWATR120524JS1-006													
SW-09	Flett	2024-11-04	TMWATR112524CH1-007													
SW-09	ALS	2024-12-02	WP2426974	0.00113	0.0004	0.00011	0.0001	79.9	0.0054	0.00076	<0.0010	<0.0010		<0.0010		
SW-09	Flett	2024-12-02	TMWATR012125CH1-004													
SW-09	Flett	2024-12-02	MTWATR121924JS1-004													
SW-10	SGS	2022-06-15	CA14382-JUN22	0.00023	0.00047	0.0001	0.000344	63	0.001	0.001			< 0.01			< 0.06
SW-10	SGS	2022-07-27		0.00042	0.00129	0.000181	0.000361	106	0.0011	0.0014			< 0.01			0.09
SW-10	SGS	2022-08-23	CA15433-AUG22	0.00072	0.00075	0.000256	0.000299	100	0.0005	0.0008			< 0.01			0.07
SW-10	SGS	2022-09-13	CA15263-SEP22	0.00045	0.00064	0.000122	0.000197	117	0.0008	0.0006			< 0.01			0.11

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002												
SW-08a	ALS	2024-09-03	WP2421465												
SW-08a	ALS	2024-09-03	WP2421465	42.5	48	0.408	0.8	0.000116	0.000244	0.0014	0.003	3.35	3.65	0.0337	0.033
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012												
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014												
SW-08a	ALS	2024-10-02	WP2423347	112	111	0.876	1.09	<0.000050	0.000081	0.004	0.0047	8.63	9.45	0.0261	0.029
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011												
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020												
SW-08a	ALS	2024-11-02	WP2425500	118	123	0.637	0.757	<0.000050	<0.000050	0.0045	0.0049	10.1	10.4	0.0606	0.0675
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003												
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002												
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004												
SW-08a	ALS	2024-12-01	WP2426900	68.7	68.9	0.716	1.15	0.000087	0.000214	0.0032	0.0012	5.41	5.16	0.0403	0.0466
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009												
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010												
SW-09	SGS	2022-06-15	CA14382-JUN22	27.4	33.9	0.208	3.28	< 0.00009	0.00106	0.0013	0.0038	2.08	3	0.00755	0.076
SW-09	SGS	2022-07-27		37.5	47.5	0.306	6.87	0.00014	0.00229			2.81	4.85	0.00597	0.112
SW-09	SGS	2022-08-23	CA15433-AUG22	34.8	37.8	0.731	1.01	0.00021	0.00026			2.7	2.9	0.0405	0.0462
SW-09	SGS	2022-09-13	CA15263-SEP22	40.2	40.4	0.415	0.983	0.00012	0.00026			3	3.09	0.00323	0.0383
SW-09	SGS	2022-11-09	CA15304-NOV22	42.3	44.6	0.32	0.864	0.00014	0.00043			3.33	3.59	0.0151	0.0284
SW-09	ALS	2023-05-26	WP2309861-001	38.5	41.6	0.321	0.808	0.000078	0.000259	0.0014	0.002	2.98	3.5	0.023	0.035
SW-09	ALS	2023-06-10	WP2311799-003	52.5	63.2	0.401	2.04	0.000112	0.000682	0.0027	0.0032	3.53	5.15	0.0579	0.0938
SW-09	ALS	2023-07-18	WP2316178-004	97.3	102	0.349	0.565	0.000167	0.000203	0.0036	0.0043	8.04	8.31	0.0602	0.126
SW-09	ALS	2023-08-12	WP2319515-006	83.4	82.5	0.4	0.525	0.00012	0.000152	0.0032	0.0031	6.73	6.58	0.142	0.175
SW-09	ALS	2023-09-02	WP2322077-004	105	104	0.321	0.953	0.000198	0.000469	0.0031	0.0041	7.84	7.67	0.212	0.293
SW-09	ALS	2023-10-08	WP2325933-003	109	122	2.08	13.7	0.00113	0.00473	0.0052	0.0142	8.7	12.2	0.328	0.449
SW-09	ALS	2023-11-02	WP2328687	40	41.2	0.141	0.396	0.000059	0.000137	0.0011	0.0014	3.1	3.34	0.00966	0.0148
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010												
SW-09	Flett	2023-11-02	MTWATR112023JS1-010												
SW-09	ALS	2023-11-02	WP2328687-006												
SW-09	ALS	2024-05-21	WP2412814	38.3	39.6	0.341	0.858	0.000071	0.000211	0.0015	0.002	3.18	3.38	0.0203	0.0301
SW-09	ALS	2024-06-17	WP2415380	35.6	37	0.381	0.728	0.000077	0.000229	0.0017	0.0019	2.94	3.13	0.0242	0.058
SW-09	Flett	2024-06-17	TMWATR070224CH1												
SW-09	ALS	2024-07-07	WP2416896	35.3	36.7	0.422	0.632	0.000071	0.000133	0.0018	<0.0010	2.87	3.13	0.0225	0.0417
SW-09	ALS	2024-08-10	WP2419573	42.4	45.7	0.441	0.852	0.00031	0.000275	<0.0010	0.0024	3.15	3.52	0.0226	0.0367
SW-09	ALS	2024-09-08	WP2421728	50.1	49.8	0.414	0.894	0.000122	0.000292	0.0025	0.0027	3.92	3.85	0.0394	0.0503
SW-09	Flett	2024-09-08	MTWATR100124JS1-004												
SW-09	Flett	2024-09-08	TMWATR092924CH1-003												
SW-09	Flett	2024-09-08	MTWATR100124JS1-003												
SW-09	ALS	2024-10-02	WP2423347	42.3	43.9	0.331	0.709	0.000106	0.000196	0.0014	0.0027	3.35	3.62	0.0119	0.0195
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004												
SW-09	Flett	2024-10-02	MTWATR111324JS2-003												
SW-09	ALS	2024-11-04	WP2425609	46.6	49.4	0.363	0.609	0.00011	0.000151	0.0013	0.0026	3.56	4.06	0.019	0.0212
SW-09	Flett	2024-11-04	MTWATR120524JS1-006												
SW-09	Flett	2024-11-04	TMWATR112524CH1-007												
SW-09	ALS	2024-12-02	WP2426974	40.8	26.7	0.328	0.382	0.000136	0.000151	0.0016	<0.0010	3.06	2.07	0.00967	0.00902
SW-09	Flett	2024-12-02	TMWATR012125CH1-004												
SW-09	Flett	2024-12-02	MTWATR121924JS1-004												
SW-10	SGS	2022-06-15	CA14382-JUN22	33.6	35.2	0.278	0.459	< 0.00009	0.00011	0.0015	0.0016	2.69	2.84	0.0569	0.148
SW-10	SGS	2022-07-27		54.6	59	0.473	0.836	0.0001	0.00018			4.45	4.8	0.0298	0.064
SW-10	SGS	2022-08-23	CA15433-AUG22	56.9	64.3	0.732	0.855	0.00011	0.00018			4.57	5.04	0.0622	0.0684
SW-10	SGS	2022-09-13	CA15263-SEP22	70.4	71	0.458	0.627	0.00012	0.00012			5.79	5.71	0.0277	0.0526

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002		0.177										
SW-08a	ALS	2024-09-03	WP2421465												
SW-08a	ALS	2024-09-03	WP2421465	<0.0000050		<0.0000050		0.000218	0.000195	0.00061	0.00107	0.108	0.111	0.0026	
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012				1.93								
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014		0.101										
SW-08a	ALS	2024-10-02	WP2423347	<0.0000050		<0.0000050		0.000816	0.000971	0.00179	0.00195	<0.0050	<0.0051	<0.0010	<0.030
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011				5.79								
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020		0.561										
SW-08a	ALS	2024-11-02	WP2425500	<0.0000050		<0.0000050		0.000794	0.000859	0.00101	0.00113	0.0867	0.0867	<0.0010	<0.030
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003		0.178										
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002		0.188										
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004				2.95								
SW-08a	ALS	2024-12-01	WP2426900	<0.0000050		<0.0000050		0.000519	0.000492	0.0015	0.0013	0.189	0.191	0.002	<0.030
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009				5.8								
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010		0.178										
SW-09	SGS	2022-06-15	CA14382-JUN22	< 0.00001		< 0.00001		0.00021	0.00025	0.0005	0.0036	0.2	0.2	< 0.03	
SW-09	SGS	2022-07-27				< 0.00001		0.00036	0.00027	0.001	0.0081	0.07	0.07	< 0.03	
SW-09	SGS	2022-08-23	CA15433-AUG22			0.00005		0.00017	0.00022	0.0009	0.0012	< 0.06	< 0.06	< 0.03	
SW-09	SGS	2022-09-13	CA15263-SEP22			< 0.00001		0.00028	0.00028	0.0007	0.0012	0.12	0.12	< 0.03	
SW-09	SGS	2022-11-09	CA15304-NOV22	< 0.00001		< 0.00001		0.019	0.0517	0.0009	0.0013	0.08	0.08	< 0.03	
SW-09	ALS	2023-05-26	WP2309861-001	<0.0000050		<0.0000050		0.000204	0.000242	0.00051	0.00109	0.0174	0.0174	<0.0010	
SW-09	ALS	2023-06-10	WP2311799-003	<0.0000050		0.0000057		0.000298	0.000336	0.0009	0.00309	<0.250	<0.255	<0.0500	
SW-09	ALS	2023-07-18	WP2316178-004	<0.0000050		<0.0000050		0.000763	0.000731	0.00091	0.00102	<0.0050	<0.0051	<0.0010	
SW-09	ALS	2023-08-12	WP2319515-006	<0.0000050		<0.0000050		0.000524	0.000593	0.00106	0.00112	0.0143	0.0143	<0.0010	
SW-09	ALS	2023-09-02	WP2322077-004	<0.0000050		<0.0000050		0.00056	0.000725	0.00097	0.00152	<0.0050	<0.0051	<0.0010	
SW-09	ALS	2023-10-08	WP2325933-003	0.0000054		0.0000156		0.000302	0.000611	0.00402	0.0152	0.406	0.414	0.0083	
SW-09	ALS	2023-11-02	WP2328687	<0.0000050		<0.0000050		0.000203	0.000197	<0.00050	0.00069	0.0179	0.0179	<0.0010	
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010				1.19								
SW-09	Flett	2023-11-02	MTWATR112023JS1-010		0.066										
SW-09	ALS	2023-11-02	WP2328687-006												
SW-09	ALS	2024-05-21	WP2412814	<0.0000050		<0.0000050		0.000191	0.000203	0.00062	0.00112	0.0158	0.0158	<0.0010	<0.03
SW-09	ALS	2024-06-17	WP2415380	<0.0000050		<0.0000050		0.000201	0.000151	0.0007	0.00106	0.008	0.008	<0.0010	<0.030
SW-09	Flett	2024-06-17	TMWATR070224CH1				3.89								
SW-09	ALS	2024-07-07	WP2416896	<0.0000050		<0.0000050		0.00017	0.000167	0.00076	0.00088	0.0234	0.0234	<0.0010	
SW-09	ALS	2024-08-10	WP2419573	<0.0000050		<0.0000050		0.000226	0.000206	0.00086	0.00125	0.0776	0.0843	0.0067	
SW-09	ALS	2024-09-08	WP2421728	<0.0000050		<0.0000050		0.00025	0.000294	0.00057	0.00109	0.11	0.112	0.002	0.037
SW-09	Flett	2024-09-08	MTWATR100124JS1-004		0.111										
SW-09	Flett	2024-09-08	TMWATR092924CH1-003				1.85								
SW-09	Flett	2024-09-08	MTWATR100124JS1-003		0.108										
SW-09	ALS	2024-10-02	WP2423347	<0.0000050		<0.0000050		0.00021	0.000225	0.0006	0.00095	0.0677	0.0677	<0.0010	<0.030
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004				1.8								
SW-09	Flett	2024-10-02	MTWATR111324JS2-003		0.086										
SW-09	ALS	2024-11-04	WP2425609	<0.0000050		<0.0000050		0.000246	0.000229	0.00055	0.00071	0.0579	0.0595	0.0016	<0.030
SW-09	Flett	2024-11-04	MTWATR120524JS1-006		0.058										
SW-09	Flett	2024-11-04	TMWATR112524CH1-007				1.38								
SW-09	ALS	2024-12-02	WP2426974	<0.0000050		<0.0000050		0.000282	0.000141	0.00494	0.00054	0.0877	0.0888	0.0011	<0.030
SW-09	Flett	2024-12-02	TMWATR012125CH1-004				1.96								
SW-09	Flett	2024-12-02	MTWATR121924JS1-004		0.06										
SW-10	SGS	2022-06-15	CA14382-JUN22	< 0.00001		< 0.00001		0.00032	0.00033	0.0006	0.0008	< 0.06	< 0.06	< 0.03	
SW-10	SGS	2022-07-27				< 0.00001		0.0005	0.00055	0.0009	0.0014	< 0.06	< 0.06	< 0.03	
SW-10	SGS	2022-08-23	CA15433-AUG22			< 0.00001		0.00025	0.00043	0.0011	0.0012	< 0.06	< 0.06	< 0.03	
SW-10	SGS	2022-09-13	CA15263-SEP22			< 0.00001		0.00038	0.00045	0.001	0.001	< 0.06	< 0.06	< 0.03	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002												
SW-08a	ALS	2024-09-03	WP2421465	<0.030											
SW-08a	ALS	2024-09-03	WP2421465	<0.050	0.037	0.0434	<0.050	0.89	0.964		0.00177	0.0022	0.000174	0.000149	2.07
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012												
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014												
SW-08a	ALS	2024-10-02	WP2423347		0.043	0.035		1.93	1.99		0.0029	0.00295	0.000188	0.000175	6.89
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011												
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020												
SW-08a	ALS	2024-11-02	WP2425500		0.035	0.0228		2.02	2		0.00206	0.00227	0.000074	0.000096	6.63
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003												
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002												
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004												
SW-08a	ALS	2024-12-01	WP2426900		<0.030	0.0293		1.18	1.05		0.00142	0.0021	0.000055	0.000126	6.64
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009												
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010												
SW-09	SGS	2022-06-15	CA14382-JUN22	0.029			0.059	0.946	1.66				0.00011	0.00013	2.3
SW-09	SGS	2022-07-27		0.072			0.127	0.94	2.26				0.00012	0.00019	1.94
SW-09	SGS	2022-08-23	CA15433-AUG22	0.013			0.048	0.941	1.09				0.00013	0.00014	1.5
SW-09	SGS	2022-09-13	CA15263-SEP22	0.007			0.04	0.983	1.07				0.00013	0.00014	1.15
SW-09	SGS	2022-11-09	CA15304-NOV22	0.052			0.064	1.01	1.15				0.00316	0.00228	0.8
SW-09	ALS	2023-05-26	WP2309861-001	<0.030		0.0338	<0.030	1.02	1.23		0.00161	0.00266	0.000105	0.000128	1.95
SW-09	ALS	2023-06-10	WP2311799-003	<0.030		0.0559	0.07	1.11	1.5		0.00149	0.00431	0.000121	0.000165	2.66
SW-09	ALS	2023-07-18	WP2316178-004	<0.030		0.0333	0.033	1.45	1.54		0.00191	0.002	0.000141	0.000117	2.56
SW-09	ALS	2023-08-12	WP2319515-006	<0.030		0.0362	0.04	1.32	1.47		0.00169	0.00201	0.000107	0.000158	3.99
SW-09	ALS	2023-09-02	WP2322077-004	<0.030		0.0521	0.044	2.23	2.22		0.00243	0.00345	0.000109	0.000109	3.83
SW-09	ALS	2023-10-08	WP2325933-003	0.054		0.173	0.204	3.09	4.66		0.00425	0.0231	0.000162	0.000259	7.59
SW-09	ALS	2023-11-02	WP2328687	<0.030	<0.030	0.0459	<0.050	1.11	1.12		0.00176	0.00216	0.000086	0.000098	2.25
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010												
SW-09	Flett	2023-11-02	MTWATR112023JS1-010												
SW-09	ALS	2023-11-02	WP2328687-006				<0.030								
SW-09	ALS	2024-05-21	WP2412814	<0.030	0.045	0.0378	<0.050	0.934	1.11		0.00151	0.00253	0.000106	0.000143	2.11
SW-09	ALS	2024-06-17	WP2415380	<0.050	0.032	0.0372	<0.050	0.884	0.953		0.00165	0.00218	0.000114	0.000114	0.588
SW-09	Flett	2024-06-17	TMWATR070224CH1												
SW-09	ALS	2024-07-07	WP2416896	<0.030	0.034	0.0417	<0.050	0.797	0.804		0.00174	0.00199	<0.000050	0.000109	1.32
SW-09	ALS	2024-08-10	WP2419573	<0.030	0.035	0.0501	<0.050	0.823	0.947		0.00164	0.00249	0.00012	0.000111	2.71
SW-09	ALS	2024-09-08	WP2421728	<0.050	0.046	0.0453	<0.050	0.962	1.05		0.00164	0.00295	0.000128	0.000111	2.13
SW-09	Flett	2024-09-08	MTWATR100124JS1-004												
SW-09	Flett	2024-09-08	TMWATR092924CH1-003												
SW-09	Flett	2024-09-08	MTWATR100124JS1-003												
SW-09	ALS	2024-10-02	WP2423347		0.053	0.0479		0.88	0.974		0.00176	0.00239	0.000198	<0.000050	2.32
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004												
SW-09	Flett	2024-10-02	MTWATR111324JS2-003												
SW-09	ALS	2024-11-04	WP2425609		0.036	0.0323		1.06	1.03		0.00159	0.00167	<0.000050	0.000087	1.9
SW-09	Flett	2024-11-04	MTWATR120524JS1-006												
SW-09	Flett	2024-11-04	TMWATR112524CH1-007												
SW-09	ALS	2024-12-02	WP2426974		<0.030	0.0328		0.861	0.602		0.00139	0.00112	<0.000050	<0.000050	1.67
SW-09	Flett	2024-12-02	TMWATR012125CH1-004												
SW-09	Flett	2024-12-02	MTWATR121924JS1-004												
SW-10	SGS	2022-06-15	CA14382-JUN22	0.035			0.042	1.49	1.54				0.00011	0.00012	2.21
SW-10	SGS	2022-07-27		0.083			0.053	1.1	1.26				0.00011	0.00019	3.61
SW-10	SGS	2022-08-23	CA15433-AUG22	0.003			0.133	0.888	1.67				0.00014	0.00021	4.34
SW-10	SGS	2022-09-13	CA15263-SEP22	0.009			0.024	1.11	1.14				0.00012	0.00015	3.75

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002													
SW-08a	ALS	2024-09-03	WP2421465													
SW-08a	ALS	2024-09-03	WP2421465	2.72	<0.000010	0.000011	1.55	1.76	80.5	11.6	0.0269	0.0277	0.66	<0.50	0.66	<0.00020
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012													
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014													
SW-08a	ALS	2024-10-02	WP2423347	6.96	<0.000010	0.000013	6	5.77	201	1.1	0.0824	0.0873	2.76	3.04	7.19	<0.00020
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011													
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020													
SW-08a	ALS	2024-11-02	WP2425500	7.06	<0.000010	<0.000010	6.48	6.49	259	<1.0	0.0889	0.0877	3.38	3.51	9.27	<0.00020
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003													
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002													
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004													
SW-08a	ALS	2024-12-01	WP2426900	7.03	<0.000010	<0.000010	14.3	3.35	171	3.5	0.0473	0.05	2.29	2.06	5	<0.00020
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009													
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010													
SW-09	SGS	2022-06-15	CA14382-JUN22	9.52	< 0.00005	< 0.00005	0.94	1.25	74	43	0.0187	0.0254		< 1	< 2	
SW-09	SGS	2022-07-27		16.3	< 0.00005	< 0.00005	1.46	2.01	120	99	0.025	0.036	3	2	7	
SW-09	SGS	2022-08-23	CA15433-AUG22	2.08	< 0.00005	< 0.00005	1.22	1.54	66	17	0.0243	0.0275	< 1	1	< 2	
SW-09	SGS	2022-09-13	CA15263-SEP22	2	< 0.00005	< 0.00005	1.65	1.75	77	20	0.0277	0.029	1	< 1	< 2	
SW-09	SGS	2022-11-09	CA15304-NOV22	1.8	< 0.00005	< 0.00005	1.6	1.71	97	12	0.0261	0.0285	1	1	< 2	
SW-09	ALS	2023-05-26	WP2309861-001	3	<0.000010	<0.000010	1.42	1.63	70.7	12.2	0.0239	0.0274	<0.50	<0.50	0.9	<0.00020
SW-09	ALS	2023-06-10	WP2311799-003	5.48	<0.000010	0.000039	2.96	2.5	92.8	42	0.0323	0.0386	<0.50	0.92	<15.0	<0.00020
SW-09	ALS	2023-07-18	WP2316178-004	3.02	<0.000010	<0.000010	3.29	3.52	131	4.1	0.0596	0.0536	0.94	1	1.72	<0.00020
SW-09	ALS	2023-08-12	WP2319515-006	4.41	<0.000010	<0.000010	2.98	3.08	129	2.5	0.0493	0.0472	0.73	0.9	1.39	<0.00020
SW-09	ALS	2023-09-02	WP2322077-004	4.7	<0.000010	<0.000010	3.17	3.33	140	11.8	0.0602	0.0756	1.29	1.03	2.04	<0.00020
SW-09	ALS	2023-10-08	WP2325933-003	27.2	0.00001	0.000086	7.04	7.55	235	220	0.0732	0.0813	2.42	2.86	6.25	<0.00020
SW-09	ALS	2023-11-02	WP2328687	2.68	<0.000010	<0.000010	1.58	1.56	57.2	8.6	0.0251	0.0255	<0.50	<0.50	0.69	<0.00020
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010													
SW-09	Flett	2023-11-02	MTWATR112023JS1-010													
SW-09	ALS	2023-11-02	WP2328687-006													
SW-09	ALS	2024-05-21	WP2412814	3.21	<0.000010	<0.000010	1.51	1.53	70	9.2	0.0232	0.0243	<0.50	0.51	0.89	<0.00020
SW-09	ALS	2024-06-17	WP2415380	0.88	<0.000010	<0.000010	1.46	1.49	74.3	19	0.0231	0.0236	0.6	0.55	0.64	<0.00020
SW-09	Flett	2024-06-17	TMWATR070224CH1													
SW-09	ALS	2024-07-07	WP2416896	1.52	<0.000010	<0.000010	1.42	1.52	74.1	7.8	0.0236	0.0244	<0.50	<0.50	0.68	<0.00020
SW-09	ALS	2024-08-10	WP2419573	3.57	<0.000010	<0.000010	1.56	1.59	90.6	14.4	0.0263	0.0288	<0.50	<0.50	0.72	<0.00020
SW-09	ALS	2024-09-08	WP2421728	3.01	<0.000010	<0.000010	1.83	1.75	81.6	10.3	0.0296	0.0315	0.64	<0.50	0.85	<0.00020
SW-09	Flett	2024-09-08	MTWATR100124JS1-004													
SW-09	Flett	2024-09-08	TMWATR092924CH1-003													
SW-09	Flett	2024-09-08	MTWATR100124JS1-003													
SW-09	ALS	2024-10-02	WP2423347	3.2	<0.000010	<0.000010	1.57	1.66	86	6	0.0266	0.0277	<0.50	<0.50	0.64	<0.00020
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004													
SW-09	Flett	2024-10-02	MTWATR111324JS2-003													
SW-09	ALS	2024-11-04	WP2425609	2.47	<0.000010	<0.000010	1.87	2.02	85.2	6	0.0287	0.0291	<0.50	<0.50	1.03	<0.00020
SW-09	Flett	2024-11-04	MTWATR120524JS1-006													
SW-09	Flett	2024-11-04	TMWATR112524CH1-007													
SW-09	ALS	2024-12-02	WP2426974	1.25	<0.000010	<0.000010	1.62	1.3	86.3	7.2	0.0255	0.0192	0.65	<0.50	0.77	<0.00020
SW-09	Flett	2024-12-02	TMWATR012125CH1-004													
SW-09	Flett	2024-12-02	MTWATR121924JS1-004													
SW-10	SGS	2022-06-15	CA14382-JUN22	2.56	< 0.00005	< 0.00005	1.02	1.1	103	3	0.0226	0.0233		< 1	< 20	
SW-10	SGS	2022-07-27		4.04	< 0.00005	< 0.00005	1.83	2.03	109	6	0.0315	0.0346	2	3	< 20	
SW-10	SGS	2022-08-23	CA15433-AUG22	5.01	< 0.00005	< 0.00005	1.7	5.51	120	5	0.0339	0.0916	< 1	2	< 20	
SW-10	SGS	2022-09-13	CA15263-SEP22	3.78	< 0.00005	< 0.00005	2.27	2.56	86	2	0.0432	0.044	< 1	1	< 20	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002													
SW-08a	ALS	2024-09-03	WP2421465													
SW-08a	ALS	2024-09-03	WP2421465	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00209	0.0144		<0.00010	<0.00010	0.000183
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012													
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014													
SW-08a	ALS	2024-10-02	WP2423347	<0.00020	<0.000010	<0.000010	0.00016	0.00018	<0.00010	<0.00010	0.00566	0.00869		0.00065	0.0007	0.00217
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011													
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020													
SW-08a	ALS	2024-11-02	WP2425500	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0022	0.0047		0.00053	0.00058	0.00251
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003													
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002													
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004													
SW-08a	ALS	2024-12-01	WP2426900	<0.00020	<0.000010	<0.000010	0.00012	0.00016	0.0001	0.00022	0.00506	0.0165		0.00041	0.00031	0.00106
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009													
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010													
SW-09	SGS	2022-06-15	CA14382-JUN22		< 0.000005	0.000042			< 0.00006	0.00017			19	0.00009	0.00008	0.000219
SW-09	SGS	2022-07-27			< 0.000005	0.000092			0.00021	0.0001	0.00667	0.293	25	0.00012	0.00009	0.000237
SW-09	SGS	2022-08-23	CA15433-AUG22		0.000011	0.000013			< 0.00006	< 0.00006	0.0167	0.0225	20	0.00006	0.00008	0.000207
SW-09	SGS	2022-09-13	CA15263-SEP22		< 0.000005	0.000005			0.00011	0.00009	0.00258	0.021	22	0.00016	0.00019	0.000283
SW-09	SGS	2022-11-09	CA15304-NOV22		< 0.000005	0.000012			< 0.00006	< 0.00006	0.00523	0.0233	18	0.00064	0.00095	0.000359
SW-09	ALS	2023-05-26	WP2309861-001	<0.00020	<0.000010	0.000011	<0.00010	0.00012	<0.00010	<0.00010	0.00212	0.021		<0.00010	<0.00010	0.000261
SW-09	ALS	2023-06-10	WP2311799-003	<0.00020	<0.000010	0.000024	<0.00010	0.00028	<0.00010	<0.00010	0.00366	0.0594		0.00021	0.0003	0.000193
SW-09	ALS	2023-07-18	WP2316178-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00345	0.00868		0.00013	0.00011	0.000462
SW-09	ALS	2023-08-12	WP2319515-006	<0.00020	<0.000010	<0.000010	0.00011	0.0001	<0.00010	<0.00010	0.00473	0.00765		0.00014	0.00017	0.000262
SW-09	ALS	2023-09-02	WP2322077-004	<0.00020	<0.000010	0.000011	0.0001	0.00017	<0.00010	<0.00010	0.00524	0.0277		0.00014	0.00015	0.000581
SW-09	ALS	2023-10-08	WP2325933-003	<0.00020	0.00002	0.000147	0.00038	0.00173	<0.00010	0.00027	0.0433	0.456		0.00024	0.00039	0.000553
SW-09	ALS	2023-11-02	WP2328687	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00094	0.0106		<0.00010	<0.00010	0.000112
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010													
SW-09	Flett	2023-11-02	MTWATR112023JS1-010													
SW-09	ALS	2023-11-02	WP2328687-006													
SW-09	ALS	2024-05-21	WP2412814	<0.00020	<0.000010	<0.000010	<0.00010	0.00012	<0.00010	<0.00010	0.00274	0.0241		<0.00010	<0.00010	0.000168
SW-09	ALS	2024-06-17	WP2415380	<0.00020	<0.000010	<0.000010	0.0001	0.00011	<0.00010	<0.00010	0.00292	0.0127		<0.00010	<0.00010	0.000193
SW-09	Flett	2024-06-17	TMWATR070224CH1													
SW-09	ALS	2024-07-07	WP2416896	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	0.00011	<0.00010	0.00228	0.00771		<0.00010	<0.00010	0.000179
SW-09	ALS	2024-08-10	WP2419573	<0.00020	<0.000010	<0.000010	0.00011	0.00017	0.0003	<0.00010	0.004	0.0208		<0.00010	<0.00010	0.000192
SW-09	ALS	2024-09-08	WP2421728	<0.00020	<0.000010	0.00001	<0.00010	0.00012	<0.00010	<0.00010	0.00231	0.0226		<0.00010	<0.00010	0.000256
SW-09	Flett	2024-09-08	MTWATR100124JS1-004													
SW-09	Flett	2024-09-08	TMWATR092924CH1-003													
SW-09	Flett	2024-09-08	MTWATR100124JS1-003													
SW-09	ALS	2024-10-02	WP2423347	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00236	0.0152		<0.00010	<0.00010	0.000204
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004													
SW-09	Flett	2024-10-02	MTWATR111324JS2-003													
SW-09	ALS	2024-11-04	WP2425609	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00182	0.00918		<0.00010	<0.00010	0.000278
SW-09	Flett	2024-11-04	MTWATR120524JS1-006													
SW-09	Flett	2024-11-04	TMWATR112524CH1-007													
SW-09	ALS	2024-12-02	WP2426974	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00235	0.00676		<0.00010	<0.00010	0.000218
SW-09	Flett	2024-12-02	TMWATR012125CH1-004													
SW-09	Flett	2024-12-02	MTWATR121924JS1-004													
SW-10	SGS	2022-06-15	CA14382-JUN22		0.000005	0.000006			< 0.00006	< 0.00006			26	0.00002	< 0.00002	0.000121
SW-10	SGS	2022-07-27			< 0.000005	0.000005			< 0.00006	0.00008	0.00425	0.0105	33	0.00003	< 0.00002	0.000155
SW-10	SGS	2022-08-23	CA15433-AUG22		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00396	0.00612	38	< 0.00002	< 0.00002	0.000105
SW-10	SGS	2022-09-13	CA15263-SEP22		< 0.000005	< 0.000005			0.00013	0.00008	0.0018	0.00383	33	0.00003	< 0.00002	0.000185

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-08a	Flett	2024-08-04	MTWATR091624JS1-002									
SW-08a	ALS	2024-09-03	WP2421465									
SW-08a	ALS	2024-09-03	WP2421465	0.000222	0.00076	0.00138			<0.0010	0.0036	0.00036	0.0004
SW-08a	Flett	2024-09-03	TMWATR092924CH1-012									
SW-08a	Flett	2024-09-03	MTWATR100124JS1-014									
SW-08a	ALS	2024-10-02	WP2423347	0.00219	0.00114	0.00148			0.0024	<0.0030	0.00081	0.00082
SW-08a	Flett	2024-10-02	TMWATR102524ZB2-011									
SW-08a	Flett	2024-10-02	MTWATR112624JS1-020									
SW-08a	ALS	2024-11-02	WP2425500	0.00264	<0.00050	0.00068			0.0016	<0.0030	0.00042	0.00038
SW-08a	Flett	2024-11-02	MTWATR120524JS1-003									
SW-08a	Flett	2024-11-02	MTWATR120524JS1-002									
SW-08a	Flett	2024-11-02	TMWATR112524CH1-004									
SW-08a	ALS	2024-12-01	WP2426900	0.00114	0.0008	0.0013			0.0041	0.0045	0.00193	0.00052
SW-08a	Flett	2024-12-01	TMWATR012125CH1-009									
SW-08a	Flett	2024-12-01	MTWATR121924JS1-010									
SW-09	SGS	2022-06-15	CA14382-JUN22	0.000328	0.00068	0.0067	0.00044	0.00102	< 0.002	0.009	< 0.002	0.003
SW-09	SGS	2022-07-27		0.000433	0.00104	0.0155	0.0007	0.00195	< 0.002	0.018	< 0.002	0.005
SW-09	SGS	2022-08-23	CA15433-AUG22	0.000225	0.00134	0.0017	0.00038	0.00041	< 0.002	0.002	< 0.002	< 0.002
SW-09	SGS	2022-09-13	CA15263-SEP22	0.000306	0.0008	0.00177	0.00027	0.00042	< 0.002	< 0.002	< 0.002	< 0.002
SW-09	SGS	2022-11-09	CA15304-NOV22	0.000927	0.00068	0.00174	0.00025	0.00035	< 0.002	0.002	< 0.002	< 0.002
SW-09	ALS	2023-05-26	WP2309861-001	0.00029	0.00071	0.00159			<0.0010	<0.0030	0.00033	0.00046
SW-09	ALS	2023-06-10	WP2311799-003	0.000388	0.00115	0.00401			<0.0010	0.0057	0.00054	0.00103
SW-09	ALS	2023-07-18	WP2316178-004	0.000411	0.00115	0.00167			0.0027	<0.0030	0.00048	0.00037
SW-09	ALS	2023-08-12	WP2319515-006	0.000268	0.00114	0.0014			<0.0010	<0.0030	0.00067	0.00048
SW-09	ALS	2023-09-02	WP2322077-004	0.000631	0.00127	0.00266			<0.0010	<0.0030	0.00054	0.00074
SW-09	ALS	2023-10-08	WP2325933-003	0.000852	0.0041	0.0245			0.0079	0.0348	0.00228	0.00396
SW-09	ALS	2023-11-02	WP2328687	0.000128	<0.00050	0.00092			<0.0010	<0.0030	<0.00030	0.00025
SW-09	Flett	2023-11-02	TMWATR110923ZB2-010									
SW-09	Flett	2023-11-02	MTWATR112023JS1-010									
SW-09	ALS	2023-11-02	WP2328687-006									
SW-09	ALS	2024-05-21	WP2412814	0.000181	0.00059	0.00163			0.0011	<0.0030	0.00035	0.00061
SW-09	ALS	2024-06-17	WP2415380	0.000213	0.00076	0.00139			<0.0010	<0.0030	0.00045	0.00051
SW-09	Flett	2024-06-17	TMWATR070224CH1									
SW-09	ALS	2024-07-07	WP2416896	0.000206	0.0008	0.00127			0.001	<0.0030	0.00044	0.00047
SW-09	ALS	2024-08-10	WP2419573	0.000229	0.00094	0.00186			0.0037	<0.0030	0.00055	0.00079
SW-09	ALS	2024-09-08	WP2421728	0.000292	0.0008	0.00176			<0.0010	<0.0030	0.00034	0.00056
SW-09	Flett	2024-09-08	MTWATR100124JS1-004									
SW-09	Flett	2024-09-08	TMWATR092924CH1-003									
SW-09	Flett	2024-09-08	MTWATR100124JS1-003									
SW-09	ALS	2024-10-02	WP2423347	0.000216	0.00069	0.00136			<0.0010	<0.0030	0.00034	0.0005
SW-09	Flett	2024-10-02	TMWATR102524ZB1-004									
SW-09	Flett	2024-10-02	MTWATR111324JS2-003									
SW-09	ALS	2024-11-04	WP2425609	0.000289	0.00064	0.00119			<0.0010	<0.0030	<0.00030	0.00031
SW-09	Flett	2024-11-04	MTWATR120524JS1-006									
SW-09	Flett	2024-11-04	TMWATR112524CH1-007									
SW-09	ALS	2024-12-02	WP2426974	0.000158	0.00065	0.00071			<0.0010	<0.0030	0.00054	0.00072
SW-09	Flett	2024-12-02	TMWATR012125CH1-004									
SW-09	Flett	2024-12-02	MTWATR121924JS1-004									
SW-10	SGS	2022-06-15	CA14382-JUN22	0.000119	0.00063	0.00081	0.00025	0.00029	0.003	0.004	< 0.002	< 0.002
SW-10	SGS	2022-07-27		0.000158	0.0007	0.00119	0.00029	0.00037	< 0.002	< 0.002	< 0.002	< 0.002
SW-10	SGS	2022-08-23	CA15433-AUG22	0.000126	0.00076	0.00093	0.00029	0.00033	< 0.002	0.004	< 0.002	< 0.002
SW-10	SGS	2022-09-13	CA15263-SEP22	0.000189	0.00053	0.00081	0.00024	0.00026	< 0.002	< 0.002	< 0.002	< 0.002

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	7.39	7.55	1.2	< 2					83		0.042
SW-10	SGS	2022-11-09	CA15304-NOV22	7.39	7.61	1.2	< 2					100		0.279
SW-10	ALS	2023-05-26	WP2309861-002	7.54	7.7	18.2	3	46	<1.0	<1.0	<1.0	46	0.0726	0.29
SW-10	ALS	2023-06-10	WP2311799-004	7.04	7.69	17.8	3.9	60.6	<1.0	<1.0	<1.0	60.6	0.0931	0.445
SW-10	ALS	2023-08-12	WP2319515-008	7.07	7.77	19.1	4.4	86.2	<1.0	<1.0	<1.0	86.2	0.0615	0.226
SW-10	ALS	2023-08-12	WP2319515-007	7.07	7.73	19.1	4.3	85.4	<1.0	<1.0	<1.0	85.4	0.0664	0.221
SW-10	ALS	2023-10-08	WP2325933-002	7.21	7.09	8.8	7.1	60.7	<1.0	<1.0	<1.0	60.7	0.203	0.789
SW-10	ALS	2024-05-21	WP2412814	7.33	7.38	13.4	<2.0	38.1	<1.0	<1.0	<1.0	38.1	0.0965	1.32
SW-10	ALS	2024-08-10	WP2419573	6.62	7.31	15.3	7.4	63.1	<1.0	<1.0	<1.0	63.1	0.128	0.222
SW-10	ALS	2024-10-10	WP2424082	6.15	7.32	4.14	5.2	59.6	<1.0	<1.0	<1.0	59.6	0.108	0.203
SW-10	ALS	2024-10-10	WP2424082	6.15	7.31	4.14	4.8	59.7	<1.0	<1.0	<1.0	59.7	0.0926	0.18
SW-10	Flett	2024-10-10	MTWATR112624JS1-007											
SW-10	Flett	2024-10-10	MTWATR112624JS1-006											
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006											
SW-11	SGS	2022-06-14	CA14382-JUN22		6.88		< 2					32		0.852
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003											
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002											
SW-11	Flett	2022-07-21	MTWATR092022JS1-002											
SW-11	SGS	2022-07-26	CA15458-JUL22	6.43	7.48	17.3	< 2					38		1.18
SW-11	Flett	2022-08-29	MTWATR092022JS1-014											
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014											
SW-11	Flett	2022-08-29	MTWATR092022JS1-013											
SW-11	SGS	2022-09-19	CA12949-SEP22	6.48	7.55	10.5	< 2					108		0.531
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010											
SW-11	Flett	2022-10-20	MTWATR110722JS1-010											
SW-11	SGS	2022-10-20	CA12874-OCT22	6.04	7.54	1.1	< 2					107		0.762
SW-11	SGS	2023-01-18	CA13675-JAN23	6.53	7.2	0.17	< 2					94		0.258
SW-11	SGS	2023-04-19	CA15419-APR23	6.03	6.94	0.61	2					22	0.377	1.49
SW-11	SGS	2023-04-19	CA15419-APR23	6.03	6.98	0.61	21					23	0.501	1.79
SW-11	ALS	2023-05-21	WP2309398	6.68	7.17	11.3	3	37.8	<1.0	<1.0	<1.0	37.8	0.214	1.75
SW-11	ALS	2023-05-21	WP2309398-004											
SW-11	ALS	2023-06-03	WP2310873	6.93	7.61	19	4.8	113	<1.0	<1.0	<1.0	113	0.157	0.257
SW-11	ALS	2023-06-03	WP2310873-001											
SW-11	ALS	2023-07-16	WP2316171	6.99	7.27	15	3.5	110	<1.0	<1.0	<1.0	110	1.17	3.92
SW-11	ALS	2023-07-16	WP2316171-007											
SW-11	ALS	2023-08-07	WP2318603-009	6.72	7.13	14.8	18.2	146	<1.0	<1.0	<1.0	146	0.237	0.216
SW-11	ALS	2023-09-04	WP2322079-005	5.91	6.99	13.4	11	100	<1.0	<1.0	<1.0	100	0.278	0.309
SW-11	ALS	2023-10-15	WP2326560	7.08	7.23	5	5.5	73.6	<1.0	<1.0	<1.0	73.6	0.286	1.23
SW-11	ALS	2023-10-15	WP2326560-001											
SW-11	ALS	2023-11-05	WP2328799	7.01	7.63	0.3	11.2	114	<1.0	<1.0	<1.0	114	0.163	1.28
SW-11	ALS	2023-11-05	WP2328799	7.01	7.58	0.3	9.5	112	<1.0	<1.0	<1.0	112	0.17	2.33
SW-11	ALS	2023-11-05	WP2328799-010											
SW-11	ALS	2023-11-05	WP2328799-012											
SW-11	ALS	2023-12-07	WP2332136	6.66	7.09	0.2	14.1	90.8	<1.0	<1.0	<1.0	90.8	0.188	0.412
SW-11	ALS	2023-12-07	WP2332136-003											
SW-11	ALS	2024-04-04	WP2408018	6.42	7.1	<0.10	7.8	167	<1.0	<1.0	<1.0	167	0.0829	1.59
SW-11	ALS	2024-04-04	WP2408018	6.42	7.12	<0.10	8.3	167	<1.0	<1.0	<1.0	167	0.23	1.55
SW-11	ALS	2024-04-04	WP2408018-006											
SW-11	ALS	2024-04-04	WP2408018-007											
SW-11	ALS	2024-06-18	WP2415532											
SW-11	ALS	2024-06-18	WP2415532	6.6	7.15	13	7	39.1	<1.0	<1.0	<1.0	39.1	0.526	1.58
SW-11	ALS	2024-07-10	WP2417255	6.23	7.51	17.3	8.6	60.9	<1.0	<1.0	<1.0	60.9	0.434	0.476

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	0.042			< 0.1	< 0.0009	< 0.0009	0.0025	0.0018	0.015	0.0156	0.000113	0.00003
SW-10	SGS	2022-11-09	CA15304-NOV22	0.039			< 0.1	< 0.0009	0.0011	0.002	0.0021	0.0134	0.0153	0.00004	0.00001
SW-10	ALS	2023-05-26	WP2309861-002		0.012	<0.0010		<0.00010	<0.00010	0.00191	0.0021	0.0094	0.0115	<0.000020	0.000022
SW-10	ALS	2023-06-10	WP2311799-004		0.023	<0.0010		<0.00010	<0.00010	0.00283	0.00361	0.0119	0.0172	<0.000020	0.000029
SW-10	ALS	2023-08-12	WP2319515-008		0.063	<0.0010		<0.00010	<0.00010	0.00299	0.00334	0.015	0.0162	<0.000020	<0.000020
SW-10	ALS	2023-08-12	WP2319515-007		<0.010	<0.0010		<0.00010	<0.00010	0.00301	0.00321	0.0151	0.0164	<0.000020	0.000022
SW-10	ALS	2023-10-08	WP2325933-002		0.0178	<0.0010		<0.00010	<0.00010	0.0024	0.0027	0.0144	0.0194	<0.000020	0.000036
SW-10	ALS	2024-05-21	WP2412814			<0.0010	0.0113	<0.00010	<0.00010	0.00183	0.0027	0.00851	0.0223	<0.000020	0.000052
SW-10	ALS	2024-08-10	WP2419573			<0.0010	0.04	<0.00010	<0.00010	0.00298	0.00295	0.0113	0.0122	0.000021	<0.000020
SW-10	ALS	2024-10-10	WP2424082			<0.0010	0.0236	<0.00010	<0.00010	0.00261	0.00253	0.0128	0.0129	0.000022	<0.000020
SW-10	ALS	2024-10-10	WP2424082			<0.0010	0.0292	<0.00010	<0.00010	0.00246	0.00258	0.0119	0.0129	<0.000020	<0.000020
SW-10	Flett	2024-10-10	MTWATR112624JS1-007												
SW-10	Flett	2024-10-10	MTWATR112624JS1-006												
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006												
SW-11	SGS	2022-06-14	CA14382-JUN22	0.493			< 0.1	< 0.0009	< 0.0009	0.0037	0.0043	0.0131	0.0167	0.000036	0.000048
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003												
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002												
SW-11	Flett	2022-07-21	MTWATR092022JS1-002												
SW-11	SGS	2022-07-26	CA15458-JUL22	0.484			< 0.1	< 0.0009	< 0.0009	0.0067	0.0066	0.0168	0.0175	0.000057	0.000063
SW-11	Flett	2022-08-29	MTWATR092022JS1-014												
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014												
SW-11	Flett	2022-08-29	MTWATR092022JS1-013												
SW-11	SGS	2022-09-19	CA12949-SEP22	0.114			0.3	< 0.0009	< 0.0009	0.0077	0.0101	0.0243	0.0264	0.000018	0.000029
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010												
SW-11	Flett	2022-10-20	MTWATR110722JS1-010												
SW-11	SGS	2022-10-20	CA12874-OCT22	0.068			0.2	< 0.0009	< 0.0009	0.0038	0.0044	0.0148	0.013	0.000034	0.00003
SW-11	SGS	2023-01-18	CA13675-JAN23	0.072			0.2	< 0.0009	< 0.0009	0.0038	0.0044	0.02	0.0269	0.000118	0.000049
SW-11	SGS	2023-04-19	CA15419-APR23	0.033			< 0.1	< 0.0009	< 0.0009	0.0025	0.0028	0.0128	0.0231	0.00003	0.000067
SW-11	SGS	2023-04-19	CA15419-APR23	0.479			< 0.1	< 0.0009	< 0.0009	0.0029	0.0029	0.015	0.0254	0.000031	0.000072
SW-11	ALS	2023-05-21	WP2309398			<0.0010	0.038	0.00012	0.00013	0.00278	0.00297	0.011	0.0242	0.000027	0.000078
SW-11	ALS	2023-05-21	WP2309398-004		0.038										
SW-11	ALS	2023-06-03	WP2310873			<0.0010	0.08	0.00015	0.00015	0.00787	0.00806	0.0253	0.0257	0.000037	0.000052
SW-11	ALS	2023-06-03	WP2310873-001		0.08										
SW-11	ALS	2023-07-16	WP2316171			<0.0010	0.163	0.0002	0.00022	0.0138	0.0173	0.0344	0.07	0.000036	0.000108
SW-11	ALS	2023-07-16	WP2316171-007		0.163										
SW-11	ALS	2023-08-07	WP2318603-009		0.407	<0.0010		0.0002	0.0002	0.0247	0.023	0.0379	0.0352	0.00004	0.000035
SW-11	ALS	2023-09-04	WP2322079-005		0.332	<0.0010		0.00022	0.00023	0.0361	0.037	0.0255	0.0254	0.000072	0.000068
SW-11	ALS	2023-10-15	WP2326560			<0.0010	0.0591	0.00016	0.0002	0.00479	0.00519	0.0282	0.0387	0.000021	0.000058
SW-11	ALS	2023-10-15	WP2326560-001		0.0591										
SW-11	ALS	2023-11-05	WP2328799			<0.0010	0.0185	0.00012	0.00018	0.00475	0.00515	0.0283	0.0548	0.000021	0.000077
SW-11	ALS	2023-11-05	WP2328799			<0.0010	0.018	0.00013	0.00013	0.00459	0.00529	0.0268	0.0636	0.000026	0.000124
SW-11	ALS	2023-11-05	WP2328799-010		0.0185										
SW-11	ALS	2023-11-05	WP2328799-012		0.018										
SW-11	ALS	2023-12-07	WP2332136			<0.0010	0.199	0.00013	0.00011	0.00457	0.00448	0.0208	0.0442	0.000026	0.000033
SW-11	ALS	2023-12-07	WP2332136-003		0.199										
SW-11	ALS	2024-04-04	WP2408018			<0.0010	0.144	<0.00010	<0.00010	0.00201	0.00312	0.0472	0.0726	<0.000020	0.000033
SW-11	ALS	2024-04-04	WP2408018			<0.0010	0.151	<0.00010	<0.00010	0.00237	0.00313	0.0564	0.0715	0.000023	0.000036
SW-11	ALS	2024-04-04	WP2408018-006		0.144										
SW-11	ALS	2024-04-04	WP2408018-007		0.151										
SW-11	ALS	2024-06-18	WP2415532												
SW-11	ALS	2024-06-18	WP2415532			<0.0010	0.0298	0.00017	0.00017	0.00477	0.00515	0.0193	0.034	0.000042	0.000066
SW-11	ALS	2024-07-10	WP2417255			<0.0010	0.0924	0.00019	0.00018	0.00893	0.00942	0.0218	0.0215	0.000063	0.000053

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	0.00001	< 0.00001	0.006	0.006	0.000009	0.000005	22.3	23.6	19			52	< 1
SW-10	SGS	2022-11-09	CA15304-NOV22	0.00003	0.00003	0.007	0.006	0.00003	0.00008	22.7	24.5	22			52	< 1
SW-10	ALS	2023-05-26	WP2309861-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000052	13.4	13.7	23.2	<0.000010	0.000029		0.14
SW-10	ALS	2023-06-10	WP2311799-004	<0.000050	<0.000050	0.011	<0.010	0.0000056	0.0000082	16.4	19.5	25.3	<0.000010	0.000044		<5.00
SW-10	ALS	2023-08-12	WP2319515-008	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	23.2	23.1	27.2	<0.000010	0.000017		0.3
SW-10	ALS	2023-08-12	WP2319515-007	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	24.1	23.1	26.7	<0.000010	0.000018		0.34
SW-10	ALS	2023-10-08	WP2325933-002	<0.000050	<0.000050	<0.010	<0.010	0.0000053	0.0000096	18.1	18	39.6	<0.000010	0.000069		0.56
SW-10	ALS	2024-05-21	WP2412814	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000212	11.2	12.5	25.3	<0.000010	0.000146		0.23
SW-10	ALS	2024-08-10	WP2419573	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	15.9	19.1	34.5	<0.000010	0.000011		0.17
SW-10	ALS	2024-10-10	WP2424082	<0.000050	<0.000050	<0.010	<0.010	0.0000068	<0.0000050	18.4	18.6	37.5	<0.000010	0.000015		0.27
SW-10	ALS	2024-10-10	WP2424082	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	17.9	18.5	36.8	<0.000010	0.000016		0.27
SW-10	Flett	2024-10-10	MTWATR112624JS1-007													
SW-10	Flett	2024-10-10	MTWATR112624JS1-006													
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006													
SW-11	SGS	2022-06-14	CA14382-JUN22	0.00001	< 0.00001	0.006	0.008	0.000039	0.000052	10.9	11.8	40			40	3
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003													
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002													
SW-11	Flett	2022-07-21	MTWATR092022JS1-002													
SW-11	SGS	2022-07-26	CA15458-JUL22	< 0.00001	0.00001	0.007	0.007	0.000037	0.00003	13.6	13.7	51			129	3
SW-11	Flett	2022-08-29	MTWATR092022JS1-014													
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014													
SW-11	Flett	2022-08-29	MTWATR092022JS1-013													
SW-11	SGS	2022-09-19	CA12949-SEP22	0.00001	< 0.00001	0.008	0.008	0.000016	0.000016	32.4	33.5	35			87	2
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010													
SW-11	Flett	2022-10-20	MTWATR110722JS1-010													
SW-11	SGS	2022-10-20	CA12874-OCT22	0.00002	0.00001	0.008	0.005	0.000049	0.000027	26	29.2	37			80	3
SW-11	SGS	2023-01-18	CA13675-JAN23	0.00001	< 0.00001	0.004	0.006	0.000082	0.000084	30.8	34.1	26			64	20
SW-11	SGS	2023-04-19	CA15419-APR23	< 0.00001	0.00001	0.008	0.009	0.00003	0.000043	10.7	11.1	34			73	13
SW-11	SGS	2023-04-19	CA15419-APR23	< 0.00001	0.00002	0.01	0.011	0.000041	0.000048	11.8	11.4	35			75	12
SW-11	ALS	2023-05-21	WP2309398	<0.000050	<0.000050	<0.010	<0.010	0.0000154	0.0000266	11.9	13.1	39.3	<0.000010	0.000178		1.96
SW-11	ALS	2023-05-21	WP2309398-004													
SW-11	ALS	2023-06-03	WP2310873	<0.000050	<0.000050	0.017	0.01	0.0000356	0.000037	30.1	31.9	38.1	<0.000010	0.000013		1.86
SW-11	ALS	2023-06-03	WP2310873-001													
SW-11	ALS	2023-07-16	WP2316171	<0.000050	<0.000050	<0.010	<0.010	0.0000597	0.0000912	28.8	30.8	52.6	0.000078	0.000297		4.95
SW-11	ALS	2023-07-16	WP2316171-007													
SW-11	ALS	2023-08-07	WP2318603-009	<0.000050	<0.000050	<0.010	<0.010	0.0000972	0.0000889	38	39.6	49.8	<0.000010	<0.000010		7.38
SW-11	ALS	2023-09-04	WP2322079-005	<0.000050	<0.000050	<0.010	<0.010	0.0000194	0.0000235	30	33	58.4	<0.000010	<0.000010		18
SW-11	ALS	2023-10-15	WP2326560	<0.000050	<0.000050	<0.010	<0.010	0.0000183	0.0000275	21.3	24	47.2	<0.000010	0.000102		5.41
SW-11	ALS	2023-10-15	WP2326560-001													
SW-11	ALS	2023-11-05	WP2328799	<0.000050	<0.000050	<0.010	0.01	0.0000188	0.0000359	33	32.9	38.7	<0.000010	0.000085		15.3
SW-11	ALS	2023-11-05	WP2328799	<0.000050	<0.000050	<0.010	<0.010	0.0000199	0.0000492	32.2	32.9	40.6	<0.000010	0.000128		15.3
SW-11	ALS	2023-11-05	WP2328799-010													
SW-11	ALS	2023-11-05	WP2328799-012													
SW-11	ALS	2023-12-07	WP2332136	<0.000050	<0.000050	<0.010	<0.010	0.0000334	0.0000259	28.9	31.5	38.5	<0.000010	0.000022		16.4
SW-11	ALS	2023-12-07	WP2332136-003													
SW-11	ALS	2024-04-04	WP2408018	<0.000050	<0.000050	0.025	0.025	0.0000782	0.00106	47.8	54.3	52.5	<0.000010	0.000087		119
SW-11	ALS	2024-04-04	WP2408018	<0.000050	<0.000050	0.025	0.024	0.000219	0.00108	53.3	54.4	65.3	<0.000010	0.000083		121
SW-11	ALS	2024-04-04	WP2408018-006													
SW-11	ALS	2024-04-04	WP2408018-007													
SW-11	ALS	2024-06-18	WP2415532													
SW-11	ALS	2024-06-18	WP2415532	<0.000050	<0	0.012	0.017	0.0000622	0.0000817	13.5	14.1	48.4	<0.000010	0.000118		4.56
SW-11	ALS	2024-07-10	WP2417255	<0.000050	<0.000050	<0.010	<0.010	0.0000318	0.0000155	19.7	18.6	63	<0.000010	<0.000010		2.64

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	0.0209	0.00073	0.000096	0.000176	162	0.0007	0.0008	< 0.005		< 0.01	< 0.01		0.07
SW-10	SGS	2022-11-09	CA15304-NOV22	< 0.00008	< 0.00008	< 0.000004	0.00002	168	0.0003	0.0007	< 0.005		< 0.01	< 0.01		0.07
SW-10	ALS	2023-05-26	WP2309861-002	0.0002	0.00082	0.00011	0.00021	99.5	0.00071	0.00096	<0.0010	0.0016		<0.0010		
SW-10	ALS	2023-06-10	WP2311799-004	0.00042	0.00117	0.00017	0.00037	114	0.00311	0.00119	<0.0010	0.001		0.0017		
SW-10	ALS	2023-08-12	WP2319515-008	0.00035	0.00056	0.00012	0.00018	172	0.00084	0.00098	<0.0010	0.0016		<0.0010		
SW-10	ALS	2023-08-12	WP2319515-007	0.00033	0 0.0260	0.00012	0.00042	171	0.00084	0.00151	<0.0010	0.001		<0.0010		
SW-10	ALS	2023-10-08	WP2325933-002	0.00065	0.00176	0.00013	0.00037	129	0.00078	0.00151	0.0016	0.0017		0.0012		
SW-10	ALS	2024-05-21	WP2412814	0.00039	0.00287	0.00013	0.00098	81.4	0.00088	0.00246	<0.0010	<0.0010		<0.0010		
SW-10	ALS	2024-08-10	WP2419573	0.00053	0.00069	0.00011	0.00014	127	0.00091	0.00089	0.0011	<0.0010		<0.0010		
SW-10	ALS	2024-10-10	WP2424082	0.00047	0.00068	0.00014	0.00019	122	0.0009	0.00071	0.0012	0.001		<0.0010		
SW-10	ALS	2024-10-10	WP2424082	0.00046	0.00067	0.0001	0.00018	121	0.00055	0.00067	0.0011	<0.0010		<0.0010		
SW-10	Flett	2024-10-10	MTWATR112624JS1-007													
SW-10	Flett	2024-10-10	MTWATR112624JS1-006													
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006													
SW-11	SGS	2022-06-14	CA14382-JUN22	0.00082	0.00159	0.000134	0.000441	79	0.0024	0.0027			< 0.01			< 0.06
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003													
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002													
SW-11	Flett	2022-07-21	MTWATR092022JS1-002													
SW-11	SGS	2022-07-26	CA15458-JUL22	0.00197	0.00223	0.000853	0.000951	65	0.003	0.0033			< 0.01			< 0.06
SW-11	Flett	2022-08-29	MTWATR092022JS1-014													
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014													
SW-11	Flett	2022-08-29	MTWATR092022JS1-013													
SW-11	SGS	2022-09-19	CA12949-SEP22	0.00096	0.00173	0.0012	0.00302	195	0.0008	0.001			< 0.01			0.12
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010													
SW-11	Flett	2022-10-20	MTWATR110722JS1-010													
SW-11	SGS	2022-10-20	CA12874-OCT22	0.00133	0.00084	0.000252	0.000137	212	0.0031	0.0016	< 0.005		< 0.01			0.11
SW-11	SGS	2023-01-18	CA13675-JAN23	0.00067	0.00109	0.00155	0.00211	204	0.0014	0.0017	< 0.005		< 0.01	< 0.01		0.06
SW-11	SGS	2023-04-19	CA15419-APR23	0.00072	0.00285	0.000217	0.000996	97	0.0028	0.0045	< 0.005		< 0.01			< 0.06
SW-11	SGS	2023-04-19	CA15419-APR23	0.00137	0.00349	0.000262	0.00107	95	0.0033	0.0045	< 0.005		< 0.01			< 0.06
SW-11	ALS	2023-05-21	WP2309398	0.00079	0.0037	0.00026	0.00096	97.2	0.00356	0.00552	0.0018	0.0016		0.0018		
SW-11	ALS	2023-05-21	WP2309398-004													
SW-11	ALS	2023-06-03	WP2310873	0.0009	0.00111	0.00159	0.00185	203	0.00137	0.00157	0.002	0.0023		0.002		
SW-11	ALS	2023-06-03	WP2310873-001													
SW-11	ALS	2023-07-16	WP2316171	0.00264	0.00565	0.00102	0.004	215	0.00501	0.00695	0.0027	0.0024		0.0028		
SW-11	ALS	2023-07-16	WP2316171-007													
SW-11	ALS	2023-08-07	WP2318603-009	0.00142	0.00126	0.00372	0.00361	288	0.00118	0.0011	0.0016	0.0013		0.0016		
SW-11	ALS	2023-09-04	WP2322079-005	0.0019	0.00208	0.00717	0.00726	247	0.00108	0.00122	0.0014	0.0015		0.0016		
SW-11	ALS	2023-10-15	WP2326560	0.00103	0.00225	0.00081	0.00106	169	0.00223	0.00288	0.0017	0.0022		0.0017		
SW-11	ALS	2023-10-15	WP2326560-001													
SW-11	ALS	2023-11-05	WP2328799	0.0008	0.00281	0.00232	0.00305	266	0.00105	0.00258	0.0016	0.0014		0.0013		
SW-11	ALS	2023-11-05	WP2328799	0.00076	0.00473	0.00225	0.00395	268	0.00113	0.00385	0.0016	0.0013		0.0014		
SW-11	ALS	2023-11-05	WP2328799-010													
SW-11	ALS	2023-11-05	WP2328799-012													
SW-11	ALS	2023-12-07	WP2332136	0.00076	0.00097	0.00293	0.00258	247	0.0012	0.00198	0.0018	0.0018		0.0015		
SW-11	ALS	2023-12-07	WP2332136-003													
SW-11	ALS	2024-04-04	WP2408018	0.00042	0.00318	0.00256	0.00332	782	0.00215	0.0287	<0.0010	0.001		<0.0010		
SW-11	ALS	2024-04-04	WP2408018	0.00095	0.0032	0.00282	0.00319	779	0.00977	0.0278	<0.0010	0.0011		<0.0010		
SW-11	ALS	2024-04-04	WP2408018-006													
SW-11	ALS	2024-04-04	WP2408018-007													
SW-11	ALS	2024-06-18	WP2415532	0.0014	0.00332											
SW-11	ALS	2024-06-18	WP2415532	0.0014	0.00332	0.00084	0.00136	108	0.00334	0.00484	0.0015	0.0018		0.0014		
SW-11	ALS	2024-07-10	WP2417255	0.00165	0.00171	0.00168	0.00177	138	0.00163	0.00159	0.0014	0.0022		0.0019		

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	83.3	88.9	0.261	0.265	0.00009	< 0.00009			6.72	7.28	0.02086	0.02093
SW-10	SGS	2022-11-09	CA15304-NOV22	84.3	91.5	0.27	0.57	0.00011	0.00022			6.7	7.37	0.0191	0.0259
SW-10	ALS	2023-05-26	WP2309861-002	49.9	52.7	0.292	0.563	0.000066	0.000145	0.002	0.0025	3.99	4.49	0.0257	0.0329
SW-10	ALS	2023-06-10	WP2311799-004	63.4	74.5	0.394	1.01	0.000117	0.000234	0.0028	0.003	5.44	6.27	0.0442	0.0611
SW-10	ALS	2023-08-12	WP2319515-008	90.1	87.6	0.285	0.479	0.000073	0.000117	0.0041	0.0041	7.82	7.28	0.0685	0.0812
SW-10	ALS	2023-08-12	WP2319515-007	92.5	87.6	0.292	0.609	0.000075	0.000126	0.0043	0.0039	7.85	7.26	0.071	0.093
SW-10	ALS	2023-10-08	WP2325933-002	69.1	71.9	0.543	1.25	0.000076	0.000297	0.0031	0.0034	5.8	6.54	0.0186	0.0358
SW-10	ALS	2024-05-21	WP2412814	42.9	48.7	0.318	1.97	0.000068	0.000706	0.0018	0.0035	3.62	4.24	0.0279	0.142
SW-10	ALS	2024-08-10	WP2419573	59.8	71.5	0.431	0.596	0.000092	0.000124	0.0025	0.0035	4.87	5.79	0.0148	0.0129
SW-10	ALS	2024-10-10	WP2424082	70.4	72.4	0.436	0.6	0.000098	0.000102	0.0033	0.0024	5.93	6.31	0.0188	0.0208
SW-10	ALS	2024-10-10	WP2424082	68.3	71.5	0.411	0.586	0.000059	0.000104	0.0032	0.0026	5.74	6.15	0.0179	0.021
SW-10	Flett	2024-10-10	MTWATR112624JS1-007												
SW-10	Flett	2024-10-10	MTWATR112624JS1-006												
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006												
SW-11	SGS	2022-06-14	CA14382-JUN22	43.2	46.9	0.486	0.869	0.00011	0.00024	0.0021	0.0025	3.89	4.25	0.00877	0.0292
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003												
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002												
SW-11	Flett	2022-07-21	MTWATR092022JS1-002												
SW-11	SGS	2022-07-26	CA15458-JUL22	53.3	53.5	1.22	1.52	0.0003	0.00036	0.0029	0.0029	4.68	4.69	0.114	0.117
SW-11	Flett	2022-08-29	MTWATR092022JS1-014												
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014												
SW-11	Flett	2022-08-29	MTWATR092022JS1-013												
SW-11	SGS	2022-09-19	CA12949-SEP22	122	127	2.01	3.11	0.00048	0.00038			9.9	10.5	0.00119	1.31
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010												
SW-11	Flett	2022-10-20	MTWATR110722JS1-010												
SW-11	SGS	2022-10-20	CA12874-OCT22	98.7	112	1.2	1.34	0.00069	0.00016			8.17	9.39	0.015	0.0132
SW-11	SGS	2023-01-18	CA13675-JAN23	118	132	1.39	2.19	0.00015	0.00029			9.9	11.4	0.47	0.686
SW-11	SGS	2023-04-19	CA15419-APR23	42.7	45.4	0.446	1.7	0.00015	0.00058			3.85	4.33	0.0322	0.0956
SW-11	SGS	2023-04-19	CA15419-APR23	47.1	46.7	0.559	1.94	0.0002	0.00062			4.27	4.42	0.0368	0.1
SW-11	ALS	2023-05-21	WP2309398	48.5	53.5	0.287	2.14	0.000085	0.000629	0.0017	0.004	4.57	5.04	0.0257	0.0626
SW-11	ALS	2023-05-21	WP2309398-004												
SW-11	ALS	2023-06-03	WP2310873	115	124	0.612	0.868	0.000077	0.000137	0.004	0.0045	9.75	10.7	0.642	0.696
SW-11	ALS	2023-06-03	WP2310873-001												
SW-11	ALS	2023-07-16	WP2316171	110	120	2.59	5.49	0.000463	0.00124	0.0039	0.0072	9.35	10.6	0.215	1.12
SW-11	ALS	2023-07-16	WP2316171-007												
SW-11	ALS	2023-08-07	WP2318603-009	144	146	4.1	3.96	0.000203	0.000198	0.0047	0.0048	12	11.4	1.52	1.44
SW-11	ALS	2023-09-04	WP2322079-005	118	126	6.62	7.41	0.000162	0.000183	0.0024	0.003	10.5	10.6	1.62	1.72
SW-11	ALS	2023-10-15	WP2326560	86.6	92.9	1.25	2.2	0.000182	0.000513	<0.0010	0.0032	8.11	8.01	0.196	0.204
SW-11	ALS	2023-10-15	WP2326560-001												
SW-11	ALS	2023-11-05	WP2328799	129	132	2.37	3.88	0.000129	0.00104	0.003	0.0044	11.4	12.1	0.874	0.953
SW-11	ALS	2023-11-05	WP2328799	127	134	2.4	5.14	0.000139	0.00211	0.0032	0.0056	11.3	12.5	0.823	0.974
SW-11	ALS	2023-11-05	WP2328799-010												
SW-11	ALS	2023-11-05	WP2328799-012												
SW-11	ALS	2023-12-07	WP2332136	119	124	2.12	2.88	0.000105	0.000339	0.003	0.0029	11.4	11	0.921	0.938
SW-11	ALS	2023-12-07	WP2332136-003												
SW-11	ALS	2024-04-04	WP2408018	201	231	0.958	4.05	0.000213	0.00156	0.0095	0.0086	19.9	23.2	0.41	0.539
SW-11	ALS	2024-04-04	WP2408018	224	229	2.38	4.08	0.000719	0.0016	0.0098	0.0085	22	22.6	0.472	0.524
SW-11	ALS	2024-04-04	WP2408018-006												
SW-11	ALS	2024-04-04	WP2408018-007												
SW-11	ALS	2024-06-18	WP2415532												
SW-11	ALS	2024-06-18	WP2415532	52.6	57	0.765	1.87	0.000219	0.000743	0.0031	0.0042	4.58	5.28	0.112	0.136
SW-11	ALS	2024-07-10	WP2417255	75.9	72.2	1.6	1.8	0.000142	0.00018	0.0027	0.0029	6.49	6.25	0.378	0.401

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Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	< 0.00001		< 0.00001		0.00074	0.0008	0.0009	0.0007	< 0.06	< 0.06	< 0.03	
SW-10	SGS	2022-11-09	CA15304-NOV22	< 0.00001		< 0.00001		0.00058	0.00097	0.0007	0.0009	< 0.06	< 0.06	< 0.03	
SW-10	ALS	2023-05-26	WP2309861-002	<0.0000050		<0.0000050		0.000493	0.000568	0.00062	0.00106	<0.0050	<0.0051	<0.0010	
SW-10	ALS	2023-06-10	WP2311799-004	<0.0000050		0.0000058		0.000647	0.000676	0.0011	0.00156	<0.250	<0.255	<0.0500	
SW-10	ALS	2023-08-12	WP2319515-008	<0.0000050		<0.0000050		0.000628	0.000639	0.00086	0.00103	0.0085	0.0085	<0.0010	
SW-10	ALS	2023-08-12	WP2319515-007	<0.0000050		<0.0000050		0.0006	0.00402	0.00084	0.0108	0.0108	0.0108	<0.0010	
SW-10	ALS	2023-10-08	WP2325933-002	0.0000055		0.0000083		0.000575	0.000597	0.00119	0.00179	0.0102	0.0102	<0.0010	
SW-10	ALS	2024-05-21	WP2412814	<0.0000050		0.0000073		0.000279	0.00028	0.00075	0.00245	0.0082	0.0082	<0.0010	<0.03
SW-10	ALS	2024-08-10	WP2419573	<0.0000050		<0.0000050		0.000356	0.000436	0.00102	0.00116	0.0055	0.0055	<0.0010	
SW-10	ALS	2024-10-10	WP2424082	<0.0000050		<0.0000050		0.000452	0.000437	0.0012	0.0012	0.0059	0.0059	<0.0010	<0.030
SW-10	ALS	2024-10-10	WP2424082	<0.0000050		<0.0000050		0.000388	0.00039	0.00101	0.00123	0.0055	0.0055	<0.0010	<0.030
SW-10	Flett	2024-10-10	MTWATR112624JS1-007		0.298										
SW-10	Flett	2024-10-10	MTWATR112624JS1-006		0.306										
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006				3.31								
SW-11	SGS	2022-06-14	CA14382-JUN22	< 0.00001		< 0.00001		0.0002	0.00023	0.0023	0.0029	< 0.06	< 0.06	< 0.03	
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003				10.9								
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002				11.3								
SW-11	Flett	2022-07-21	MTWATR092022JS1-002		1.24										
SW-11	SGS	2022-07-26	CA15458-JUL22	< 0.00001		< 0.00001		0.00026	0.00035	0.0037	0.004	< 0.06	< 0.06	< 0.03	
SW-11	Flett	2022-08-29	MTWATR092022JS1-014		1.13										
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014				6.63								
SW-11	Flett	2022-08-29	MTWATR092022JS1-013		1.06										
SW-11	SGS	2022-09-19	CA12949-SEP22			< 0.00001		0.00054	0.0006	0.0033	0.0035	< 0.06	< 0.06	< 0.03	
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010				3.38								
SW-11	Flett	2022-10-20	MTWATR110722JS1-010		0.286										
SW-11	SGS	2022-10-20	CA12874-OCT22	< 0.00001		< 0.00001		0.00046	0.00043	0.0066	0.0029	< 0.06	< 0.06	< 0.03	
SW-11	SGS	2023-01-18	CA13675-JAN23	< 0.00001		< 0.00001		0.00024	0.00023	0.002	0.0024	0.06	0.06	< 0.03	
SW-11	SGS	2023-04-19	CA15419-APR23	< 0.00001		< 0.00001		0.00018	0.0002	0.002	0.0035	1.26	1.26	< 0.03	
SW-11	SGS	2023-04-19	CA15419-APR23	0.00001		0.00001		0.00022	0.00021	0.0023	0.0037	1.29	1.29	< 0.03	
SW-11	ALS	2023-05-21	WP2309398	0.0000066		0.00001		0.000305	0.000345	0.00211	0.00416	0.0695	0.0695	<0.0010	
SW-11	ALS	2023-05-21	WP2309398-004												
SW-11	ALS	2023-06-03	WP2310873	<0.0000050		0.0000055		0.000946	0.000965	0.00344	0.00364	0.0125	0.0146	0.0021	
SW-11	ALS	2023-06-03	WP2310873-001												
SW-11	ALS	2023-07-16	WP2316171	0.0000143		0.0000123		0.00283	0.00296	0.00518	0.00699	0.0271	0.0335	0.0064	
SW-11	ALS	2023-07-16	WP2316171-007												
SW-11	ALS	2023-08-07	WP2318603-009	0.0000098		0.0000089		0.00144	0.00147	0.00483	0.00435	<0.0050	<0.0051	<0.0010	
SW-11	ALS	2023-09-04	WP2322079-005	0.000007		0.0000057		0.00126	0.00135	0.00701	0.00742	<0.0050	<0.0051	<0.0010	
SW-11	ALS	2023-10-15	WP2326560	0.0000064		<0.0000050		0.000429	0.000443	0.00298	0.0035	0.0108	0.0108	<0.0010	
SW-11	ALS	2023-10-15	WP2326560-001												
SW-11	ALS	2023-11-05	WP2328799	<0.0000050		<0.0000050		0.000441	0.000318	0.00282	0.00407	0.0151	0.0151	<0.0010	
SW-11	ALS	2023-11-05	WP2328799	<0.0000050		<0.0000050		0.000418	0.000286	0.00276	0.00575	0.0085	0.0085	<0.0010	
SW-11	ALS	2023-11-05	WP2328799-010												
SW-11	ALS	2023-11-05	WP2328799-012												
SW-11	ALS	2023-12-07	WP2332136	<0.0000050		0.000006		0.000264	0.00022	0.00268	0.00284	0.0127	0.0138	0.0011	
SW-11	ALS	2023-12-07	WP2332136-003												
SW-11	ALS	2024-04-04	WP2408018	0.0000195		0.0000416		0.000423	0.000756	0.00298	0.00422	<0.0050	<0.0051	0.0021	<0.03
SW-11	ALS	2024-04-04	WP2408018	0.0000158		0.0000418		0.000514	0.000673	0.00313	0.00405	<0.0050	<0.0051	0.0029	0.049
SW-11	ALS	2024-04-04	WP2408018-006												
SW-11	ALS	2024-04-04	WP2408018-007												
SW-11	ALS	2024-06-18	WP2415532												
SW-11	ALS	2024-06-18	WP2415532	0.0000097		0.0000106		0.000523	0.00042	0.00312	0.00448	0.0145	0.0145	<0.0010	
SW-11	ALS	2024-07-10	WP2417255	0.0000064		0.0000061		0.000501	0.000491	0.00384	0.00375	<0.0050	<0.0051	<0.0010	

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Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	0.057			0.021	1.85	1.97				0.00414	0.00096	3.74
SW-10	SGS	2022-11-09	CA15304-NOV22	0.03			0.01	1.7	1.92				0.00049	< 0.00004	4.29
SW-10	ALS	2023-05-26	WP2309861-002	<0.030		0.0248	<0.030	1.13	1.31		0.00113	0.00163	0.000071	0.000129	1.39
SW-10	ALS	2023-06-10	WP2311799-004	<0.030		0.0323	<0.030	1.08	1.28		0.00111	0.00183	0.000132	0.000166	3.08
SW-10	ALS	2023-08-12	WP2319515-008	<0.030		0.0311	0.031	1.12	1.16		0.00132	0.00173	0.000118	0.000159	3.4
SW-10	ALS	2023-08-12	WP2319515-007	<0.030		0.0299	0.032	1.14	1.37		0.00138	0.00167	0.000112	0.000151	3.46
SW-10	ALS	2023-10-08	WP2325933-002	<0.030		0.0359	0.037	1.96	2.14		0.00207	0.00327	0.000108	0.000176	4.9
SW-10	ALS	2024-05-21	WP2412814	<0.030	0.133	0.0362	0.133	1	1.38		0.00142	0.00373	0.000093	0.00016	2.08
SW-10	ALS	2024-08-10	WP2419573	<0.030	<0.030	0.0446	<0.050	0.979	1.12		0.00158	0.00179	0.00012	0.000134	3.68
SW-10	ALS	2024-10-10	WP2424082		<0.030	0.0214		1.35	1.32		0.00161	0.00177	<0.000050	0.000121	5.02
SW-10	ALS	2024-10-10	WP2424082		<0.030	0.0231		1.32	1.3		0.00157	0.0018	0.000114	0.00005	5
SW-10	Flett	2024-10-10	MTWATR112624JS1-007												
SW-10	Flett	2024-10-10	MTWATR112624JS1-006												
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006												
SW-11	SGS	2022-06-14	CA14382-JUN22	0.014			0.031	1.17	1.33				0.00018	0.00022	4.38
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003												
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002												
SW-11	Flett	2022-07-21	MTWATR092022JS1-002												
SW-11	SGS	2022-07-26	CA15458-JUL22	0.037			0.059	0.926	1.03				0.00027	0.00028	6.43
SW-11	Flett	2022-08-29	MTWATR092022JS1-014												
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014												
SW-11	Flett	2022-08-29	MTWATR092022JS1-013												
SW-11	SGS	2022-09-19	CA12949-SEP22	0.058			0.099	1.54	1.61				0.00019	0.00018	7.31
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010												
SW-11	Flett	2022-10-20	MTWATR110722JS1-010												
SW-11	SGS	2022-10-20	CA12874-OCT22	0.053			0.029	1.39	1.54				0.00029	0.00045	5.01
SW-11	SGS	2023-01-18	CA13675-JAN23	0.029			0.065	1.47	1.7				0.00077	0.00071	7.37
SW-11	SGS	2023-04-19	CA15419-APR23	0.022			0.061	1.84	2.03				0.00012	0.00018	5.19
SW-11	SGS	2023-04-19	CA15419-APR23	0.029			0.066	2.1	2.17				0.00015	0.00018	6.17
SW-11	ALS	2023-05-21	WP2309398	<0.030	0.095	0.058	0.095	1.21	1.5		0.00113	0.004	0.000155	0.000213	3.82
SW-11	ALS	2023-05-21	WP2309398-004												
SW-11	ALS	2023-06-03	WP2310873	<0.030	0.051	0.0903	0.051	1.89	1.84		0.00254	0.00283	0.000266	0.000273	5.76
SW-11	ALS	2023-06-03	WP2310873-001												
SW-11	ALS	2023-07-16	WP2316171	0.11	0.206	1.21	0.206	3.39	4.15		0.00428	0.00773	0.000279	0.000264	9.93
SW-11	ALS	2023-07-16	WP2316171-007												
SW-11	ALS	2023-08-07	WP2318603-009	0.188		0.201	0.183	3.1	2.84		0.00282	0.00305	0.000288	0.000286	9.4
SW-11	ALS	2023-09-04	WP2322079-005	0.129		0.184	0.176	2.1	2.11		0.00356	0.00356	0.000404	0.000326	10.4
SW-11	ALS	2023-10-15	WP2326560	0.048	0.077	0.0744	0.077	2.37	2.43		0.00216	0.0041	0.000298	0.00023	6.17
SW-11	ALS	2023-10-15	WP2326560-001												
SW-11	ALS	2023-11-05	WP2328799	0.045	0.157	0.358	0.157	2.1	2.4		0.00223	0.00406	0.000171	0.000183	6.8
SW-11	ALS	2023-11-05	WP2328799	0.046	0.306	0.269	0.306	2.08	2.48		0.00227	0.00518	0.000145	0.000189	6.75
SW-11	ALS	2023-11-05	WP2328799-010												
SW-11	ALS	2023-11-05	WP2328799-012												
SW-11	ALS	2023-12-07	WP2332136	<0.030	0.042	0.0438	<0.050	1.75	1.81		0.00219	0.00245	0.000199	0.000142	8
SW-11	ALS	2023-12-07	WP2332136-003				0.042								
SW-11	ALS	2024-04-04	WP2408018	<0.050	0.152	0.0876	0.152	5.19	5.86		0.00237	0.00404	0.000068	0.000111	6.67
SW-11	ALS	2024-04-04	WP2408018	<0.050	0.146	0.0987	0.146	5.14	5.75		0.00239	0.00385	0.000084	0.000141	7.08
SW-11	ALS	2024-04-04	WP2408018-006												
SW-11	ALS	2024-04-04	WP2408018-007												
SW-11	ALS	2024-06-18	WP2415532	<0.030	0.044		<0.05								
SW-11	ALS	2024-06-18	WP2415532	<0.050		0.0872		1.59	1.77		0.00212	0.00449	0.0001	0.000372	5.44
SW-11	ALS	2024-07-10	WP2417255	<0.050	0.059	0.0835	0.059	1.51	1.52		0.00208	0.00219	0.000128	0.000328	5.72

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	3.82	0.00005	< 0.00005	2.51	2.8	160	4	0.0442	0.04679	1	< 1	< 2	
SW-10	SGS	2022-11-09	CA15304-NOV22	5.06	< 0.00005	< 0.00005	2.61	2.89	137	3	0.0439	0.0482	5	7	< 2	
SW-10	ALS	2023-05-26	WP2309861-002	2.07	<0.000010	<0.000010	1.78	1.97	91.3	7.2	0.0272	0.0299	<0.50	<0.50	0.92	<0.00020
SW-10	ALS	2023-06-10	WP2311799-004	3.91	<0.000010	<0.000010	2.13	2.54	63	11.8	0.0351	0.0382	<0.50	0.69	<15.0	<0.00020
SW-10	ALS	2023-08-12	WP2319515-008	3.96	<0.000010	<0.000010	3	2.91	133	3.1	0.05	0.0493	0.53	1.22	0.8	<0.00020
SW-10	ALS	2023-08-12	WP2319515-007	4.26	<0.000010	<0.000010	2.96	3.06	135	3.4	0.0473	0.0491	0.58	0.75	0.78	<0.00020
SW-10	ALS	2023-10-08	WP2325933-002	5.9	<0.000010	<0.000010	2.46	2.7	142	6.3	0.0393	0.0387	0.8	0.96	0.93	<0.00020
SW-10	ALS	2024-05-21	WP2412814	4.18	<0.000010	<0.000010	1.68	1.8	80	61.2	0.023	0.0276	<0.50	<0.50	0.84	<0.00020
SW-10	ALS	2024-08-10	WP2419573	4.24	<0.000010	0.000021	1.95	2.09	130	2.2	0.0361	0.0397	0.78	<0.50	0.45	<0.00020
SW-10	ALS	2024-10-10	WP2424082	5.37	<0.000010	<0.000010	2.23	2.24	139	5.5	0.0374	0.0364	0.6	<0.50	0.48	<0.00020
SW-10	ALS	2024-10-10	WP2424082	5.14	<0.000010	<0.000010	2.17	2.21	142	5.3	0.0384	0.0384	0.63	<0.50	0.48	<0.00020
SW-10	Flett	2024-10-10	MTWATR112624JS1-007													
SW-10	Flett	2024-10-10	MTWATR112624JS1-006													
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006													
SW-11	SGS	2022-06-14	CA14382-JUN22	5.32	< 0.00005	< 0.00005	1.86	2.12	117	7	0.0302	0.0333		< 1	< 20	
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003													
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002													
SW-11	Flett	2022-07-21	MTWATR092022JS1-002													
SW-11	SGS	2022-07-26	CA15458-JUL22	7.18	< 0.00005	< 0.00005	2.28	2.31	166	14	0.0383	0.0401		2	< 20	
SW-11	Flett	2022-08-29	MTWATR092022JS1-014													
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014													
SW-11	Flett	2022-08-29	MTWATR092022JS1-013													
SW-11	SGS	2022-09-19	CA12949-SEP22	7.77	< 0.00005	< 0.00005	3.38	3.53	217	4	0.0742	0.0763	1	1	< 2	
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010													
SW-11	Flett	2022-10-20	MTWATR110722JS1-010													
SW-11	SGS	2022-10-20	CA12874-OCT22	5.53	< 0.00005	< 0.00005	2.89	2.86	209	5	0.0648	0.0712	1	< 1	< 2	
SW-11	SGS	2023-01-18	CA13675-JAN23	8.35	< 0.00005	< 0.00005	5.21	5.93	217	2	0.0681	0.0746	4	4	8	
SW-11	SGS	2023-04-19	CA15419-APR23	7.36	< 0.00005	< 0.00005	5.03	5.2	111	43	0.027	0.0297	2	2	< 2	
SW-11	SGS	2023-04-19	CA15419-APR23	8.04	< 0.00005	< 0.00005	5.8	5.39	109	38	0.03	0.0304	2	2	< 2	
SW-11	ALS	2023-05-21	WP2309398	7.46	<0.000010	<0.000010	3.43	3.43	120	48.8	0.0304	0.0336	1.52	1.8	3.85	<0.00020
SW-11	ALS	2023-05-21	WP2309398-004													
SW-11	ALS	2023-06-03	WP2310873	6.1	<0.000010	<0.000010	4.07	4.39	184	9.5	0.071	0.076	<0.50	0.53	0.56	<0.00020
SW-11	ALS	2023-06-03	WP2310873-001													
SW-11	ALS	2023-07-16	WP2316171	13.5	0.000174	0.000569	10.6	12.3	258	80.6	0.0691	0.0763	0.98	1	1.35	<0.00020
SW-11	ALS	2023-07-16	WP2316171-007													
SW-11	ALS	2023-08-07	WP2318603-009	8.46	0.000012	0.000014	9.83	9.17	287	34	0.0849	0.0827	0.56	0.74	0.36	<0.00020
SW-11	ALS	2023-09-04	WP2322079-005	10.6	0.000012	0.000012	10.4	10.4	260	6.9	0.0823	0.0819	0.63	0.51	<0.30	<0.00020
SW-11	ALS	2023-10-15	WP2326560	7.87	<0.000010	0.000016	5.64	5.21	189	7.4	0.0603	0.0577	2	1.49	4.13	<0.00020
SW-11	ALS	2023-10-15	WP2326560-001													
SW-11	ALS	2023-11-05	WP2328799	8.39	<0.000010	0.00001	10.1	10.2	258	635	0.0792	0.0828	3.8	3.65	9.43	<0.00020
SW-11	ALS	2023-11-05	WP2328799	9.33	<0.000010	0.00001	10.2	10.1	246	526	0.08	0.084	3.7	3.48	9.39	<0.00020
SW-11	ALS	2023-11-05	WP2328799-010													
SW-11	ALS	2023-11-05	WP2328799-012													
SW-11	ALS	2023-12-07	WP2332136	8.01	<0.000010	<0.000010	8.06	7.82	222	18.9	0.0724	0.0733	3.51	3.48	9.22	<0.00020
SW-11	ALS	2023-12-07	WP2332136-003													
SW-11	ALS	2024-04-04	WP2408018	9.6	0.000012	0.000469	82.1	86.2	600	26.5	0.134	0.142	24	26.9	69.7	<0.00020
SW-11	ALS	2024-04-04	WP2408018	9.29	0.000086	0.000466	82.6	83.2	542	22.3	0.141	0.136	23.6	26.6	70.4	<0.00020
SW-11	ALS	2024-04-04	WP2408018-006													
SW-11	ALS	2024-04-04	WP2408018-007													
SW-11	ALS	2024-06-18	WP2415532													
SW-11	ALS	2024-06-18	WP2415532	7.17	<0.000010	<0	6.02	6.22	189	45.6	0.037	0.0406	1.01	0.92	1.77	<0.00020
SW-11	ALS	2024-07-10	WP2417255	5.79	<0.000010	<0.000010	5.1	5.09	173	4.2	0.0514	0.0487	0.72	0.52	<0.30	<0.00020

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Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22		0.00001	0.000005			< 0.00006	< 0.00006	0.00552	0.00226	21	0.00038	0.00015	0.000294
SW-10	SGS	2022-11-09	CA15304-NOV22		< 0.000005	0.00003			0.00009	0.0002	0.0012	0.00743	22	0.00006	0.00007	0.00031
SW-10	ALS	2023-05-26	WP2309861-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00205	0.0112		<0.00010	<0.00010	0.000144
SW-10	ALS	2023-06-10	WP2311799-004	<0.00020	<0.000010	<0.000010	<0.00010	0.00012	<0.00010	<0.00010	0.00238	0.0183		<0.00010	<0.00010	0.000148
SW-10	ALS	2023-08-12	WP2319515-008	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	0.00026	0.00289	0.00979		<0.00010	<0.00010	0.000197
SW-10	ALS	2023-08-12	WP2319515-007	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00325	0.00858		<0.00010	0.00014	0.000198
SW-10	ALS	2023-10-08	WP2325933-002	<0.00020	<0.000010	0.000011	0.00014	0.00018	<0.00010	<0.00010	0.00578	0.0325		<0.00010	<0.00010	0.000119
SW-10	ALS	2024-05-21	WP2412814	<0.00020	<0.000010	0.00002	<0.00010	0.0002	<0.00010	<0.00010	0.00294	0.0592		<0.00010	<0.00010	0.000157
SW-10	ALS	2024-08-10	WP2419573	<0.00020	<0.000010	<0.000010	0.00011	0.00011	<0.00010	<0.00010	0.0038	0.00748		<0.00010	<0.00010	0.000147
SW-10	ALS	2024-10-10	WP2424082	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	0.00012	<0.00010	0.00226	0.00771		<0.00010	<0.00010	0.000154
SW-10	ALS	2024-10-10	WP2424082	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00202	0.00627		<0.00010	<0.00010	0.00015
SW-10	Flett	2024-10-10	MTWATR112624JS1-007													
SW-10	Flett	2024-10-10	MTWATR112624JS1-006													
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006													
SW-11	SGS	2022-06-14	CA14382-JUN22		0.000008	0.000009			< 0.00006	< 0.00006			40	0.00003	0.00011	0.000144
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003													
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002													
SW-11	Flett	2022-07-21	MTWATR092022JS1-002													
SW-11	SGS	2022-07-26	CA15458-JUL22		0.000007	0.00001			0.00007	0.00012			51	0.00005	0.00003	0.000155
SW-11	Flett	2022-08-29	MTWATR092022JS1-014													
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014													
SW-11	Flett	2022-08-29	MTWATR092022JS1-013													
SW-11	SGS	2022-09-19	CA12949-SEP22		< 0.000005	0.000006			< 0.00006	< 0.00006	0.00616	0.0248	38	0.00003	0.00006	0.000192
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010													
SW-11	Flett	2022-10-20	MTWATR110722JS1-010													
SW-11	SGS	2022-10-20	CA12874-OCT22		0.000008	0.000005			0.00007	< 0.00006	0.00939	0.00556	37	0.00028	0.00005	0.000364
SW-11	SGS	2023-01-18	CA13675-JAN23		0.000009	0.000007			0.00011	0.00009	0.00446	0.014	26	0.00004	0.00006	0.000161
SW-11	SGS	2023-04-19	CA15419-APR23		0.000005	0.00002			0.00026	< 0.00006	0.00709	0.0577	38	< 0.00002	0.00003	0.000104
SW-11	SGS	2023-04-19	CA15419-APR23		0.000007	0.000024			0.00056	0.0001	0.0121	0.0669	38	0.00003	0.00005	0.000132
SW-11	ALS	2023-05-21	WP2309398	<0.00020	<0.000010	0.000026	0.00024	0.00042	<0.00010	<0.00010	0.00586	0.0817		<0.00010	<0.00010	0.000148
SW-11	ALS	2023-05-21	WP2309398-004													
SW-11	ALS	2023-06-03	WP2310873	<0.00020	<0.000010	0.000013	0.00024	0.00023	<0.00010	<0.00010	0.00552	0.0104		<0.00010	<0.00010	0.000204
SW-11	ALS	2023-06-03	WP2310873-001													
SW-11	ALS	2023-07-16	WP2316171	<0.00020	0.000033	0.000066	0.0006	0.00064	<0.00010	<0.00010	0.0433	0.133		0.00309	0.00496	0.000218
SW-11	ALS	2023-07-16	WP2316171-007													
SW-11	ALS	2023-08-07	WP2318603-009	<0.00020	<0.000010	<0.000010	0.0004	0.00025	<0.00010	<0.00010	0.0129	0.0112		0.00062	0.00062	0.000176
SW-11	ALS	2023-09-04	WP2322079-005	<0.00020	<0.000010	<0.000010	0.00058	0.0005	<0.00010	<0.00010	0.0166	0.0181		0.00015	0.00018	0.000134
SW-11	ALS	2023-10-15	WP2326560	<0.00020	<0.000010	0.000014	0.00022	0.00021	<0.00010	<0.00010	0.0115	0.044		0.00025	0.00028	0.000157
SW-11	ALS	2023-10-15	WP2326560-001													
SW-11	ALS	2023-11-05	WP2328799	<0.00020	<0.000010	0.000015	0.00017	0.00035	<0.00010	<0.00010	0.00648	0.04		0.00014	0.00011	0.00017
SW-11	ALS	2023-11-05	WP2328799	<0.00020	<0.000010	0.000024	0.00017	0.00055	<0.00010	<0.00010	0.00653	0.0732		0.00014	<0.00010	0.000174
SW-11	ALS	2023-11-05	WP2328799-010													
SW-11	ALS	2023-11-05	WP2328799-012													
SW-11	ALS	2023-12-07	WP2332136	<0.00020	<0.000010	<0.000010	0.00025	0.00017	<0.00010	<0.00010	0.00831	0.0127		0.00014	0.00015	0.000166
SW-11	ALS	2023-12-07	WP2332136-003													
SW-11	ALS	2024-04-04	WP2408018	<0.00020	<0.000010	0.000018	<0.00010	0.00018	<0.00010	<0.00010	0.00259	0.053		0.0004	0.00146	0.000206
SW-11	ALS	2024-04-04	WP2408018	<0.00020	<0.000010	0.000021	0.00013	0.0002	<0.00010	<0.00010	0.0075	0.0538		0.0007	0.00149	0.000221
SW-11	ALS	2024-04-04	WP2408018-006													
SW-11	ALS	2024-04-04	WP2408018-007													
SW-11	ALS	2024-06-18	WP2415532													
SW-11	ALS	2024-06-18	WP2415532	<0.0002	<0.000010	0.000021	0.00037	0.00032	<0.00010	<0.0001	0.0141	0.0408		0.00044	0.00034	0.000164
SW-11	ALS	2024-07-10	WP2417255	<0.00020	<0.000010	<0.000010	0.00036	0.00037	<0.00010	<0.00010	0.0125	0.0141		0.00036	0.00035	0.000172

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Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-10	SGS	2022-11-09	CA15304-NOV22	0.00028	0.00055	0.00041	0.00019	0.00015	< 0.002	< 0.002	< 0.002	< 0.002
SW-10	SGS	2022-11-09	CA15304-NOV22	0.00039	0.00037	0.00049	0.00014	0.00024	0.004	0.004	< 0.002	< 0.002
SW-10	ALS	2023-05-26	WP2309861-002	0.000157	0.00052	0.00102			<0.0010	<0.0030	0.00038	0.00041
SW-10	ALS	2023-06-10	WP2311799-004	0.000194	0.00062	0.00161			0.003	<0.0030	0.00048	0.00057
SW-10	ALS	2023-08-12	WP2319515-008	0.0002	0.00065	0.00112			<0.0010	<0.0030	0.00053	0.00049
SW-10	ALS	2023-08-12	WP2319515-007	0.000205	0.00072	0.00128			<0.0010	<0.0030	0.00048	0.00046
SW-10	ALS	2023-10-08	WP2325933-002	0.000161	0.00066	0.00182			0.0014	0.0031	0.00069	0.00086
SW-10	ALS	2024-05-21	WP2412814	0.000284	0.00062	0.00348			0.0012	0.0068	0.00043	0.00074
SW-10	ALS	2024-08-10	WP2419573	0.000128	0.00079	0.00112			<0.0010	<0.0030	0.00058	0.00056
SW-10	ALS	2024-10-10	WP2424082	0.000162	<0.00050	0.00072			0.0076	<0.0030	0.00043	0.00046
SW-10	ALS	2024-10-10	WP2424082	0.000155	<0.00050	0.00071			0.0011	<0.0030	0.00044	0.00047
SW-10	Flett	2024-10-10	MTWATR112624JS1-007									
SW-10	Flett	2024-10-10	MTWATR112624JS1-006									
SW-10	Flett	2024-10-10	TMWATR102224ZB2-006									
SW-11	SGS	2022-06-14	CA14382-JUN22	0.000157	0.00114	0.00165	0.00082	0.00096	0.004	0.006	< 0.002	< 0.002
SW-11	Flett	2022-07-21	TMWATR091622ZB1-003									
SW-11	Flett	2022-07-21	TMWATR091622ZB1-002									
SW-11	Flett	2022-07-21	MTWATR092022JS1-002									
SW-11	SGS	2022-07-26	CA15458-JUL22	0.000617	0.00249	0.00295	0.00122	0.00131	0.004	0.004	< 0.002	< 0.002
SW-11	Flett	2022-08-29	MTWATR092022JS1-014									
SW-11	Flett	2022-08-29	TMWATR091622ZB1-014									
SW-11	Flett	2022-08-29	MTWATR092022JS1-013									
SW-11	SGS	2022-09-19	CA12949-SEP22	0.00019	0.00156	0.00279	0.00071	0.00088	0.048	0.067	< 0.002	< 0.002
SW-11	Flett	2022-10-20	TMWATR111022ZB3-010									
SW-11	Flett	2022-10-20	MTWATR110722JS1-010									
SW-11	SGS	2022-10-20	CA12874-OCT22	0.000217	0.00091	0.00091	0.00052	0.00055	0.004	< 0.002	< 0.002	< 0.002
SW-11	SGS	2023-01-18	CA13675-JAN23	0.000188	0.00094	0.00167	0.00045	0.00057	0.002	0.004	< 0.002	< 0.002
SW-11	SGS	2023-04-19	CA15419-APR23	0.00016	0.0011	0.00327	0.00111	0.0015	0.003	0.006	< 0.002	< 0.002
SW-11	SGS	2023-04-19	CA15419-APR23	0.000177	0.00135	0.00365	0.00127	0.00153	0.01	0.01	< 0.002	< 0.002
SW-11	ALS	2023-05-21	WP2309398	0.000218	0.00125	0.00428			0.0018	0.0063	0.00106	0.00149
SW-11	ALS	2023-05-21	WP2309398-004									
SW-11	ALS	2023-06-03	WP2310873	0.000222	0.00197	0.00233			0.0108	0.0103	0.00139	0.00127
SW-11	ALS	2023-06-03	WP2310873-001									
SW-11	ALS	2023-07-16	WP2316171	0.000278	0.00263	0.00619			0.004	0.0091	0.00218	0.00168
SW-11	ALS	2023-07-16	WP2316171-007									
SW-11	ALS	2023-08-07	WP2318603-009	0.000171	0.00338	0.00324			0.0044	0.0039	0.00174	0.0012
SW-11	ALS	2023-09-04	WP2322079-005	0.000134	0.00471	0.0052			0.003	<0.0030	0.00349	0.00257
SW-11	ALS	2023-10-15	WP2326560	0.000176	0.00144	0.00294			0.0029	0.0066	0.00135	0.00108
SW-11	ALS	2023-10-15	WP2326560-001									
SW-11	ALS	2023-11-05	WP2328799	0.000253	0.00137	0.0046			0.002	0.0064	0.00106	0.00145
SW-11	ALS	2023-11-05	WP2328799	0.000351	0.00141	0.00845			0.0018	0.0097	0.00106	0.00186
SW-11	ALS	2023-11-05	WP2328799-010									
SW-11	ALS	2023-11-05	WP2328799-012									
SW-11	ALS	2023-12-07	WP2332136	0.000204	0.00163	0.00239			0.0028	<0.0030	0.00115	0.00107
SW-11	ALS	2023-12-07	WP2332136-003									
SW-11	ALS	2024-04-04	WP2408018	0.000324	0.00052	0.00251			0.0072	0.0243	0.0004	0.00062
SW-11	ALS	2024-04-04	WP2408018	0.000328	0.00088	0.00252			0.0119	0.0241	0.00054	0.00058
SW-11	ALS	2024-04-04	WP2408018-006									
SW-11	ALS	2024-04-04	WP2408018-007									
SW-11	ALS	2024-06-18	WP2415532									
SW-11	ALS	2024-06-18	WP2415532	0.000225	0.00196	0.00395			0.0045	0.0069	0.00151	0.00198
SW-11	ALS	2024-07-10	WP2417255	0.000177	0.0021	0.00246			0.0023	<0.0030	0.00187	0.00174

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-11	ALS	2024-07-10	WP2417255											
SW-11	ALS	2024-07-10	WP2417255	6.23	7.6	17.3	11.5	60.4	<1.0	<1.0	<1.0	60.4	0.436	0.48
SW-11	ALS	2024-08-10	WP2419573	6.55	6.97	17.3	12.4	37.1	<1.0	<1.0	<1.0	37.1	0.525	0.71
SW-11	ALS	2024-09-03	WP2421465											
SW-11	ALS	2024-09-03	WP2421465	6.77	7.56	11.3	12.7	78.5	<1.0	<1.0	<1.0	78.5	0.199	0.28
SW-11	Flett	2024-09-03	TMWATR092924CH1-010											
SW-11	Flett	2024-09-03	MTWATR100124JS1-012											
SW-11	ALS	2024-10-05	WP2423572	6.84	7.67	7.5	14.7	64.7	<1.0	<1.0	<1.0	64.7	0.42	0.43
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001											
SW-11	Flett	2024-10-05	MTWATR112724JS1-001											
SW-11	ALS	2024-11-02	WP2425500	6.8	7.61	0.52	<2.0	104	<1.0	<1.0	<1.0	104	0.0999	0.164
SW-11	Flett	2024-11-02	MTWATR120424JS2-002											
SW-11	Flett	2024-11-02	MTWATR120424JS2-001											
SW-11	Flett	2024-11-02	TMWATR112524CH1-001											
SW-11	ALS	2024-12-02	WP2426974	6.83	6.98	0.1	6.7	52	<1.0	<1.0	<1.0	52	0.388	0.613
SW-11	Flett	2024-12-02	TMWATR012125CH1-003											
SW-11	Flett	2024-12-02	MTWATR121924JS1-003											
SW-12	SGS	2022-10-19	CA15422-OCT22	2.5	6.63	5.43	9					9		0.47
SW-12B	ALS	2023-05-30	WP2310312-002	7.21	7.4	20.1	5.4	32.5	<1.0	<1.0	<1.0	32.5	0.059	0.0832
SW-12B	ALS	2023-08-13	WP2319515-003	7.48	7.54	21	3.3	42.4	<1.0	<1.0	<1.0	42.4	0.0248	0.0778
SW-12B	ALS	2023-10-15	WP2326560	6.87	6.77	5.3	6.7	30.9	<1.0	<1.0	<1.0	30.9	0.195	0.24
SW-12B	ALS	2023-10-15	WP2326560-002											
SW-12B	ALS	2024-02-07	WP2403186	6.36	6.37	<0.10	45.1	65.1	<1.0	<1.0	<1.0	65.1	0.0585	0.317
SW-12B	ALS	2024-02-07	WP2403186-006											
SW-12B	ALS	2024-05-26	WP2413300	6.31	6.77	7.9	<2.0	26.7	<1.0	<1.0	<1.0	26.7	0.145	0.154
SW-12B	ALS	2024-08-12	WP2419654	6.05	7.17	14.8	15.7	39.4	<1.0	<1.0	<1.0	39.4	0.114	0.131
SW-12B	ALS	2024-10-09	WP2424079	6.57	7.09	7.1	6.5	39.9	<1.0	<1.0	<1.0	39.9	0.074	0.0945
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016											
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016											
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015											
SW-13	SGS	2022-10-19	CA15422-OCT22	1.6	7.42	5.68	< 2					32		0.14
SW-14	SGS	2022-04-26	CA15019-MAY22		6.47		< 2					3		0.011
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002											
SW-14	Flett	2022-06-05	MTWATR061722JS2-002											
SW-14	SGS	2022-06-05	CA15234-JUN22		7.13		< 2					22		0.137
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008											
SW-14	Flett	2022-08-30	MTWATR092022JS1-007											
SW-14	SGS	2022-09-20	CA13964-SEP22	6.88	7.43	15.2	< 2					33		0.035
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005											
SW-14	Flett	2022-10-19	MTWATR110722JS1-005											
SW-14	SGS	2022-10-19	CA15422-OCT22	2.4	7.74	6.3	< 2					43		0.167
SW-14	SGS	2023-01-18	CA13675-JAN23	6.08	7.19	0.58	< 2					64		0.167
SW-14	SGS	2023-02-08	CA15284-FEB23	6.99	7.46		< 2					54	0.035	0.044
SW-14	SGS	2023-02-08	CA15284-FEB23	6.99	7.39		< 2					56	0.037	0.033
SW-14	SGS	2023-03-23	CA13921-MAR23	7.17	7.09	3.14	< 2					62	0.041	0.057
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014											
SW-14	Flett	2023-05-26	MTWATR060823JS1-016											
SW-14	ALS	2023-05-30	WP2310312-003	8.1	7.73	21.5	2.3	33.9	<1.0	<1.0	<1.0	33.9	0.0417	0.0667
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004											
SW-14	Flett	2023-08-13	MTWATR082323JS1-005											
SW-14	ALS	2023-08-13	WP2319515-001	7.77	7.67	18.8	<2.0	42.7	<1.0	<1.0	<1.0	42.7	0.0236	0.0495
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-11	ALS	2024-07-10	WP2417255												
SW-11	ALS	2024-07-10	WP2417255			<0.0010	0.0615	0.00018	0.00018	0.00902	0.00954	0.0217	0.0218	0.000063	0.000048
SW-11	ALS	2024-08-10	WP2419573			<0.0010	0.0296	0.00021	0.00021	0.00574	0.00586	0.0193	0.0217	0.000044	0.000055
SW-11	ALS	2024-09-03	WP2421465												
SW-11	ALS	2024-09-03	WP2421465			<0.0010	0.0676	0.00011	0.00012	0.00607	0.00747	0.0171	0.0183	0.000026	0.000032
SW-11	Flett	2024-09-03	TMWATR092924CH1-010												
SW-11	Flett	2024-09-03	MTWATR100124JS1-012												
SW-11	ALS	2024-10-05	WP2423572			<0.0010	0.0596	0.00014	0.00014	0.00571	0.00549	0.0197	0.0186	0.000045	0.000043
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001												
SW-11	Flett	2024-10-05	MTWATR112724JS1-001												
SW-11	ALS	2024-11-02	WP2425500			<0.0010	0.178	<0.00010	<0.00010	0.00359	0.00373	0.0182	0.0201	0.000026	0.000027
SW-11	Flett	2024-11-02	MTWATR120424JS2-002												
SW-11	Flett	2024-11-02	MTWATR120424JS2-001												
SW-11	Flett	2024-11-02	TMWATR112524CH1-001												
SW-11	ALS	2024-12-02	WP2426974			<0.0010	0.0496	0.00013	<0.00010	0.00354	0.00246	0.0166	0.0144	0.000033	0.000028
SW-11	Flett	2024-12-02	TMWATR012125CH1-003												
SW-11	Flett	2024-12-02	MTWATR121924JS1-003												
SW-12	SGS	2022-10-19	CA15422-OCT22	0.389			< 0.1	< 0.0009	< 0.0009	0.0048	0.0055	0.00657	0.00746	0.000025	0.000044
SW-12B	ALS	2023-05-30	WP2310312-002		0.028	<0.0010		<0.00010	0.0001	0.00292	0.00306	0.00737	0.00767	<0.000020	<0.000020
SW-12B	ALS	2023-08-13	WP2319515-003		<0.010	<0.0010		<0.00010	<0.00010	0.0027	0.00338	0.0113	0.0126	<0.000020	<0.000020
SW-12B	ALS	2023-10-15	WP2326560			<0.0010	0.0214	0.00013	0.00014	0.00376	0.0037	0.00957	0.0103	<0.000020	0.000024
SW-12B	ALS	2023-10-15	WP2326560-002		0.0214										
SW-12B	ALS	2024-02-07	WP2403186			<0.0010	1.85	<0.00010	0.00012	0.00396	0.00414	0.014	0.018	<0.000020	<0.000020
SW-12B	ALS	2024-02-07	WP2403186-006		1.85										
SW-12B	ALS	2024-05-26	WP2413300			<0.0010	0.0091	0.0001	0.00011	0.00269	0.00271	0.00723	0.00683	<0.000020	<0.000020
SW-12B	ALS	2024-08-12	WP2419654			<0.0010	0.0201	0.0001	0.00013	0.00384	0.00397	0.01	0.0109	<0.000020	<0.000020
SW-12B	ALS	2024-10-09	WP2424079			<0.0010	0.0284	<0.00010	<0.00010	0.00277	0.00288	0.00925	0.00997	<0.000020	<0.000020
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016												
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016												
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015												
SW-13	SGS	2022-10-19	CA15422-OCT22	0.11			< 0.1	< 0.0009	< 0.0009	0.0041	0.0046	0.00996	0.0101	0.000013	0.00004
SW-14	SGS	2022-04-26	CA15019-MAY22	0.003			0.5	< 0.0009	< 0.0009	< 0.0002	0.0002	0.00194	0.00236	< 0.000007	< 0.000007
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002												
SW-14	Flett	2022-06-05	MTWATR061722JS2-002												
SW-14	SGS	2022-06-05	CA15234-JUN22	0.074			< 0.1	< 0.0009	< 0.0009	0.0015	0.0019	0.0061	0.00723	< 0.000007	0.000011
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008												
SW-14	Flett	2022-08-30	MTWATR092022JS1-007												
SW-14	SGS	2022-09-20	CA13964-SEP22	0.019			0.2	< 0.0009	< 0.0009	0.0036	0.003	0.00747	0.0109	0.000013	0.000013
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005												
SW-14	Flett	2022-10-19	MTWATR110722JS1-005												
SW-14	SGS	2022-10-19	CA15422-OCT22	0.023			0.2	< 0.0009	< 0.0009	0.0026	0.0036	0.0117	0.014	0.000062	0.000045
SW-14	SGS	2023-01-18	CA13675-JAN23	0.04			0.7	< 0.0009	< 0.0009	0.0054	0.0066	0.0206	0.0236	0.000049	0.000054
SW-14	SGS	2023-02-08	CA15284-FEB23	0.039			0.7	< 0.0009	< 0.0009	0.0046	0.0052	0.0165	0.0176	0.000008	0.000009
SW-14	SGS	2023-02-08	CA15284-FEB23	0.033			0.7	< 0.0009	< 0.0009	0.0046	0.0051	0.0174	0.0178	0.000008	0.000012
SW-14	SGS	2023-03-23	CA13921-MAR23	0.04			1	< 0.0009	< 0.0009	0.0058	0.0065	0.02012	0.02098	0.000016	0.000016
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014												
SW-14	Flett	2023-05-26	MTWATR060823JS1-016												
SW-14	ALS	2023-05-30	WP2310312-003		0.03	0.0016		0.00012	0.00013	0.0025	0.00273	0.00747	0.00759	0.000024	<0.000020
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004												
SW-14	Flett	2023-08-13	MTWATR082323JS1-005												
SW-14	ALS	2023-08-13	WP2319515-001		<0.010	<0.0010		<0.00010	<0.00010	0.00283	0.00328	0.0117	0.0127	<0.000020	<0.000020
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-11	ALS	2024-07-10	WP2417255													
SW-11	ALS	2024-07-10	WP2417255	<0.000050	<0.000050	<0.010	<0.010	0.0000309	0.0000167	19.7	18.9	61.6	<0.000010	<0.000010		2.66
SW-11	ALS	2024-08-10	WP2419573	<0.000050	<0.000050	0.011	0.014	0.0000303	0.0000414	13.4	14.6	56.2	<0.000010	0.000016		2.54
SW-11	ALS	2024-09-03	WP2421465													
SW-11	ALS	2024-09-03	WP2421465	<0.000050	<0.000050	<0.010	<0.010	0.0000084	0.0000274	20.8	22.4	39.7	<0.000010	<0.000010		2.9
SW-11	Flett	2024-09-03	TMWATR092924CH1-010													
SW-11	Flett	2024-09-03	MTWATR100124JS1-012													
SW-11	ALS	2024-10-05	WP2423572	<0.000050	<0.000050	<0.010	<0.010	0.0000258	0.0000233	19.6	20.7	55	<0.000010	<0.000010		2.79
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001													
SW-11	Flett	2024-10-05	MTWATR112724JS1-001													
SW-11	ALS	2024-11-02	WP2425500	<0.000050	<0.000050	<0.010	<0.010	0.0000084	0.0000126	26.7	26	38.7	<0.000010	<0.000010		3.24
SW-11	Flett	2024-11-02	MTWATR120424JS2-002													
SW-11	Flett	2024-11-02	MTWATR120424JS2-001													
SW-11	Flett	2024-11-02	TMWATR112524CH1-001													
SW-11	ALS	2024-12-02	WP2426974	<0.000050	<0.000050	<0.010	<0.010	0.0000197	0.0000132	17	11	45.1	<0.000010	0.00005		2.87
SW-11	Flett	2024-12-02	TMWATR012125CH1-003													
SW-11	Flett	2024-12-02	MTWATR121924JS1-003													
SW-12	SGS	2022-10-19	CA15422-OCT22	0.00002	< 0.00001	0.004	0.004	0.000393	0.000381	4.02	4.53	23			58	< 1
SW-12B	ALS	2023-05-30	WP2310312-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000058	9.4	9.89	25.7	<0.000010	<0.000010		2.98
SW-12B	ALS	2023-08-13	WP2319515-003	<0.000050	<0.000050	0.01	0.011	<0.0000050	<0.0000050	12.7	14.6	22	<0.000010	<0.000010		4.02
SW-12B	ALS	2023-10-15	WP2326560	<0.000050	<0.000050	<0.010	<0.010	0.000006	0.0000065	12.3	13.8	47.9	<0.000010	<0.000010		0.34
SW-12B	ALS	2023-10-15	WP2326560-002													
SW-12B	ALS	2024-02-07	WP2403186	<0.000050	<0.000050	<0.010	<0.010	0.0000126	0.0000232	15	17.4	48.8	<0.000010	0.000025		3.39
SW-12B	ALS	2024-02-07	WP2403186-006													
SW-12B	ALS	2024-05-26	WP2413300	<0.000050	<0.000050	<0.010	<0.010	0.0000068	0.0000091	10.1	10.9	42.6	<0.000010	<0.000010		0.12
SW-12B	ALS	2024-08-12	WP2419654	<0.000050	<0.000050	<0.010	<0.010	0.0000055	0.0000089	14.4	15.4	46.8	<0.000010	<0.000010		0.1
SW-12B	ALS	2024-10-09	WP2424079	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000089	12.9	13	35.6	<0.000010	<0.000010		2.84
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016													
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016													
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015													
SW-13	SGS	2022-10-19	CA15422-OCT22	0.00002	< 0.00001	0.004	0.004	0.000374	0.000318	12.2	13.3	28			52	34
SW-14	SGS	2022-04-26	CA15019-MAY22	< 0.00001	< 0.00001	0.004	0.004	0.000013	< 0.000003	0.62	0.75	2			< 8	< 1
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002													
SW-14	Flett	2022-06-05	MTWATR061722JS2-002													
SW-14	SGS	2022-06-05	CA15234-JUN22	< 0.00001	< 0.00001	0.005	0.005	< 0.000003	< 0.000003	6.36	7.28	20			61	5
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008													
SW-14	Flett	2022-08-30	MTWATR092022JS1-007													
SW-14	SGS	2022-09-20	CA13964-SEP22	< 0.00001	< 0.00001	0.007	0.015	0.000004	< 0.000003	9.06	9.98	19			60	4
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005													
SW-14	Flett	2022-10-19	MTWATR110722JS1-005													
SW-14	SGS	2022-10-19	CA15422-OCT22	< 0.00001	< 0.00001	0.007	0.009	0.000117	0.000331	12.1	13.2	25			65	4
SW-14	SGS	2023-01-18	CA13675-JAN23	< 0.00001	0.00001	0.008	0.009	0.000046	0.000055	19.7	19.9	30			71	8
SW-14	SGS	2023-02-08	CA15284-FEB23	< 0.00001	< 0.00001	0.007	0.007	0.000014	0.000004	17	17.9	29			62	8
SW-14	SGS	2023-02-08	CA15284-FEB23	< 0.00001	0.0001	0.007	0.008	0.000004	0.000005	16.7	17.8	29			69	8
SW-14	SGS	2023-03-23	CA13921-MAR23	< 0.00001	< 0.00001	0.008	0.008	0.000008	< 0.000003	20.9	20.2	29			27	7
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014													
SW-14	Flett	2023-05-26	MTWATR060823JS1-016													
SW-14	ALS	2023-05-30	WP2310312-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.77	10.1	20.8	<0.000010	<0.000010		3.56
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004													
SW-14	Flett	2023-08-13	MTWATR082323JS1-005													
SW-14	ALS	2023-08-13	WP2319515-001	<0.000050	<0.000050	0.012	0.011	<0.0000050	<0.0000050	12.8	14.7	21.7	<0.000010	<0.000010		3.96
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-11	ALS	2024-07-10	WP2417255	0.00165	0.00171											
SW-11	ALS	2024-07-10	WP2417255	0.00168	0.0017	0.00167	0.00174	136	0.00167	0.00165	0.002	0.0021		0.0018		
SW-11	ALS	2024-08-10	WP2419573	0.00152	0.00169	0.0002	0.00077	98.8	0.00322	0.00343	0.0017	0.0016		0.0014		
SW-11	ALS	2024-09-03	WP2421465	0.00106	0.00117											
SW-11	ALS	2024-09-03	WP2421465	0.00106	0.00117	0.00092	0.00104	164	0.00092	0.00115	0.001	<0.0010		0.0011		
SW-11	Flett	2024-09-03	TMWATR092924CH1-010													
SW-11	Flett	2024-09-03	MTWATR100124JS1-012													
SW-11	ALS	2024-10-05	WP2423572	0.00156	0.00152	0.0011	0.00109	145	0.00169	0.00162	0.0014	0.0012		0.0012		
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001													
SW-11	Flett	2024-10-05	MTWATR112724JS1-001													
SW-11	ALS	2024-11-02	WP2425500	0.0007	0.00092	0.00143	0.00151	200	0.00089	0.00106	0.0011	<0.0010		<0.0010		
SW-11	Flett	2024-11-02	MTWATR120424JS2-002													
SW-11	Flett	2024-11-02	MTWATR120424JS2-001													
SW-11	Flett	2024-11-02	TMWATR112524CH1-001													
SW-11	ALS	2024-12-02	WP2426974	0.00179	0.00129	0.00066	0.00057	128	0.00698	0.00228	<0.0010	0.0012		0.0016		
SW-11	Flett	2024-12-02	TMWATR012125CH1-003													
SW-11	Flett	2024-12-02	MTWATR121924JS1-003													
SW-12	SGS	2022-10-19	CA15422-OCT22	0.00232	0.00223	0.000566	0.00114	30	0.0024	0.0009	0.006		< 0.01			< 0.06
SW-12B	ALS	2023-05-30	WP2310312-002	0.00032	0.00031	<0.00010	<0.00010	81.4	0.0006	0.00065	<0.0010	0.0015		0.0014		
SW-12B	ALS	2023-08-13	WP2319515-003	0.00014	0.00027	<0.00010	<0.00010	105	0.00044	0.00061	<0.0010	<0.0010		<0.0010		
SW-12B	ALS	2023-10-15	WP2326560	0.00063	0.00067	0.00018	0.0002	83.5	0.00183	0.00176	0.0014	0.002		0.0016		
SW-12B	ALS	2023-10-15	WP2326560-002													
SW-12B	ALS	2024-02-07	WP2403186	0.00051	0.00118	0.00068	0.00083	155	0.00123	0.00248	0.001	0.0017		0.0015		
SW-12B	ALS	2024-02-07	WP2403186-006													
SW-12B	ALS	2024-05-26	WP2413300	0.00052	0.00055	0.00011	0.0001	63.6	0.0016	0.00151	0.0014	0.0016		0.0015		
SW-12B	ALS	2024-08-12	WP2419654	<0.00050	0.00098	0.00037	0.00046	87.3	0.00063	0.00104	0.0017	0.0016		0.0014		
SW-12B	ALS	2024-10-09	WP2424079	0.0004	0.00051	<0.00010	0.00019	96.6	0.00047	0.00056	0.0015	0.0011		<0.0010		
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016													
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016													
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015													
SW-13	SGS	2022-10-19	CA15422-OCT22	0.00289	0.00197	0.00029	0.000399	148	0.001	0.0008	< 0.005		< 0.01			0.07
SW-14	SGS	2022-04-26	CA15019-MAY22	0.00176	< 0.00008	0.000078	0.000026	11	0.0003	0.0003						< 0.06
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002													
SW-14	Flett	2022-06-05	MTWATR061722JS2-002													
SW-14	SGS	2022-06-05	CA15234-JUN22	0.0006	0.00068	0.000038	0.000058	56	0.0008	0.0008			< 0.01			< 0.06
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008													
SW-14	Flett	2022-08-30	MTWATR092022JS1-007													
SW-14	SGS	2022-09-20	CA13964-SEP22	0.00021	0.00034	0.000028	0.00004	76	0.0004	0.0005			< 0.01			< 0.06
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005													
SW-14	Flett	2022-10-19	MTWATR110722JS1-005													
SW-14	SGS	2022-10-19	CA15422-OCT22	0.00041	0.00205	0.000076	0.000243	93	0.0009	0.0011	< 0.005		< 0.01			0.06
SW-14	SGS	2023-01-18	CA13675-JAN23	0.00063	0.00072	0.000176	0.000348	120	0.0008	0.0009	< 0.005		< 0.01	< 0.01		0.06
SW-14	SGS	2023-02-08	CA15284-FEB23	0.00033	0.00024	0.000079	0.000096	109	0.0008	0.0007	< 0.005		< 0.01	< 0.01	3.27	0.06
SW-14	SGS	2023-02-08	CA15284-FEB23	0.00039	0.00028	0.000084	0.0001	118	0.0007	0.0008	< 0.005		< 0.01	< 0.01	3.27	0.06
SW-14	SGS	2023-03-23	CA13921-MAR23	0.0004	0.00055	0.000066	0.000138	146	0.0007	0.0005	< 0.005		< 0.01			0.07
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014													
SW-14	Flett	2023-05-26	MTWATR060823JS1-016													
SW-14	ALS	2023-05-30	WP2310312-003	0.00022	0.00026	<0.00010	<0.00010	84.7	0.00088	0.0005	<0.0010	0.0012		<0.0010		
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004													
SW-14	Flett	2023-08-13	MTWATR082323JS1-005													
SW-14	ALS	2023-08-13	WP2319515-001	0.00016	0.00025	<0.00010	<0.00010	106	0.00046	0.00056	<0.0010	<0.0010		<0.0010		
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-11	ALS	2024-07-10	WP2417255												
SW-11	ALS	2024-07-10	WP2417255	75.7	73.2	1.57	1.82	0.00015	0.000171	0.0028	0.0032	6.44	6.31	0.378	0.406
SW-11	ALS	2024-08-10	WP2419573	51.7	55.3	0.901	1.25	0.000156	0.000341	0.0019	0.0034	4.43	4.57	0.0163	0.104
SW-11	ALS	2024-09-03	WP2421465												
SW-11	ALS	2024-09-03	WP2421465	81.3	87.8	1.22	2.24	0.000105	0.000239	0.0026	0.004	7.14	7.73	0.258	0.282
SW-11	Flett	2024-09-03	TMWATR092924CH1-010												
SW-11	Flett	2024-09-03	MTWATR100124JS1-012												
SW-11	ALS	2024-10-05	WP2423572	78.5	81.1	1.56	1.78	0.000148	0.000169	0.0026	0.0026	7.17	7.14	0.208	0.211
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001												
SW-11	Flett	2024-10-05	MTWATR112724JS1-001												
SW-11	ALS	2024-11-02	WP2425500	106	104	1.74	2.39	<0.000050	0.000095	0.0032	0.0034	9.51	9.52	0.48	0.517
SW-11	Flett	2024-11-02	MTWATR120424JS2-002												
SW-11	Flett	2024-11-02	MTWATR120424JS2-001												
SW-11	Flett	2024-11-02	TMWATR112524CH1-001												
SW-11	ALS	2024-12-02	WP2426974	66.8	44.4	0.955	1.06	0.000184	0.00031	0.0024	0.0015	5.92	4.11	0.11	0.08
SW-11	Flett	2024-12-02	TMWATR012125CH1-003												
SW-11	Flett	2024-12-02	MTWATR121924JS1-003												
SW-12	SGS	2022-10-19	CA15422-OCT22	15.2	17.3	0.511	0.879	0.00026	0.00026			1.26	1.46	0.0252	0.0703
SW-12B	ALS	2023-05-30	WP2310312-002	37	37.8	0.274	0.321	0.000117	0.000118	<0.0010	0.0017	3.28	3.18	0.00821	0.00901
SW-12B	ALS	2023-08-13	WP2319515-003	48.8	53.5	0.042	0.181	<0.000050	0.000098	0.002	0.0028	4.14	4.15	0.00229	0.0534
SW-12B	ALS	2023-10-15	WP2326560	49	51.9	0.406	0.425	0.000101	0.000112	<0.0010	0.0016	4.44	4.24	0.0118	0.013
SW-12B	ALS	2023-10-15	WP2326560-002												
SW-12B	ALS	2024-02-07	WP2403186	56.3	65.6	0.998	1.52	0.000086	0.000306	0.0012	0.0022	4.57	5.38	0.15	0.165
SW-12B	ALS	2024-02-07	WP2403186-006												
SW-12B	ALS	2024-05-26	WP2413300	39.1	40.6	0.15	0.157	<0.000050	<0.000050	<0.0010	0.0018	3.38	3.24	0.00265	0.00299
SW-12B	ALS	2024-08-12	WP2419654	53.2	56.9	0.46	0.626	<0.000050	0.000108	0.0013	0.0017	4.19	4.47	0.0469	0.0586
SW-12B	ALS	2024-10-09	WP2424079	50.9	52.6	0.233	0.316	<0.000050	0.000054	0.0023	<0.0010	4.55	4.88	0.00779	0.0168
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016												
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016												
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015												
SW-13	SGS	2022-10-19	CA15422-OCT22	46.3	50.8	0.353	0.533	0.00012	< 0.00009			3.88	4.29	0.0261	0.0518
SW-14	SGS	2022-04-26	CA15019-MAY22	1.9	2.3	0.007	0.013	< 0.00009	< 0.00009	< 0.0001	< 0.0001	0.091	0.113	0.00874	0.0093
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002												
SW-14	Flett	2022-06-05	MTWATR061722JS2-002												
SW-14	SGS	2022-06-05	CA15234-JUN22	25.1	28.7	0.114	0.215	0.00014	0.00015	0.001	0.0012	2.25	2.54	0.00107	0.0108
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008												
SW-14	Flett	2022-08-30	MTWATR092022JS1-007												
SW-14	SGS	2022-09-20	CA13964-SEP22	35.7	39.2	0.132	0.188	< 0.00009	0.0001			3.18	3.46	0.00264	0.012
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005												
SW-14	Flett	2022-10-19	MTWATR110722JS1-005												
SW-14	SGS	2022-10-19	CA15422-OCT22	46.2	50.2	0.127	0.298	< 0.00009	0.00018			3.9	4.21	0.00567	0.0219
SW-14	SGS	2023-01-18	CA13675-JAN23	71.7	72.5	0.795	1.22	0.00011	0.00021			5.46	5.52	0.242	0.368
SW-14	SGS	2023-02-08	CA15284-FEB23	61.9	65.7	0.705	0.833	0.00009	< 0.00009			4.72	5.09	0.119	0.129
SW-14	SGS	2023-02-08	CA15284-FEB23	62.2	65.4	0.712	0.885	0.00014	0.0001			4.95	5.09	0.119	0.13
SW-14	SGS	2023-03-23	CA13921-MAR23	75.5	73.1	1.2	1.5	< 0.00009	0.00011			5.69	5.5	0.149	0.222
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014												
SW-14	Flett	2023-05-26	MTWATR060823JS1-016												
SW-14	ALS	2023-05-30	WP2310312-003	38.4	38.7	0.308	0.341	0.000151	0.000132	0.0011	0.0014	3.39	3.27	0.0074	0.00808
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004												
SW-14	Flett	2023-08-13	MTWATR082323JS1-005												
SW-14	ALS	2023-08-13	WP2319515-001	48.5	53.3	0.042	0.155	<0.000050	0.000067	0.0019	0.0025	4.02	4.03	0.00116	0.0545
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009												

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Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-11	ALS	2024-07-10	WP2417255												
SW-11	ALS	2024-07-10	WP2417255	0.0000067		0.0000068		0.000512	0.000517	0.00395	0.00376	<0.0050	<0.0051	<0.0010	
SW-11	ALS	2024-08-10	WP2419573	0.0000053		0.0000051		0.000433	0.000438	0.00299	0.00326	0.0128	0.0128	<0.0010	
SW-11	ALS	2024-09-03	WP2421465												
SW-11	ALS	2024-09-03	WP2421465	<0.0000050		<0.0000050		0.00032	0.000287	0.00253	0.00278	<0.0050	<0.0051	<0.0010	
SW-11	Flett	2024-09-03	TMWATR092924CH1-010				5.58								
SW-11	Flett	2024-09-03	MTWATR100124JS1-012		1.33										
SW-11	ALS	2024-10-05	WP2423572	<0.0000050		<0.0000050		0.000294	0.00027	0.00336	0.00328	<0.0050	<0.0051	<0.0010	0.074
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001				7.41								
SW-11	Flett	2024-10-05	MTWATR112724JS1-001		1.55										
SW-11	ALS	2024-11-02	WP2425500	<0.0000050		<0.0000050		0.000234	0.000254	0.00241	0.00246	0.0173	0.0173	<0.0010	0.05
SW-11	Flett	2024-11-02	MTWATR120424JS2-002		1.09										
SW-11	Flett	2024-11-02	MTWATR120424JS2-001		0.965										
SW-11	Flett	2024-11-02	TMWATR112524CH1-001				4.21								
SW-11	ALS	2024-12-02	WP2426974	<0.0000050		0.0000072		0.000334	0.000184	0.00657	0.00194	0.185	0.187	0.0024	0.036
SW-11	Flett	2024-12-02	TMWATR012125CH1-003				7.71								
SW-11	Flett	2024-12-02	MTWATR121924JS1-003		0.513										
SW-12	SGS	2022-10-19	CA15422-OCT22	< 0.00001		< 0.00001		0.00047	0.00039	0.0013	0.0011	8.32	8.32	< 0.03	
SW-12B	ALS	2023-05-30	WP2310312-002	<0.0000050		<0.0000050		0.000148	0.000178	0.00056	0.00054	0.0107	0.0107	<0.0010	
SW-12B	ALS	2023-08-13	WP2319515-003	<0.0000050		<0.0000050		0.000216	0.000288	<0.00050	0.00059	<0.0050	<0.0051	<0.0010	
SW-12B	ALS	2023-10-15	WP2326560	<0.0000050		<0.0000050		0.000205	0.000213	0.00164	0.00155	<0.0050	<0.0051	<0.0010	
SW-12B	ALS	2023-10-15	WP2326560-002												
SW-12B	ALS	2024-02-07	WP2403186	0.0000055		0.0000108		0.000185	0.000211	0.00135	0.00174	0.0088	0.0184	0.0096	
SW-12B	ALS	2024-02-07	WP2403186-006												
SW-12B	ALS	2024-05-26	WP2413300	0.0000064		0.0000069		0.000187	0.000218	0.00115	0.00114	0.0135	0.0135	<0.0010	
SW-12B	ALS	2024-08-12	WP2419654	<0.0000050		<0.0000050		0.00015	0.000159	0.00128	0.00172	<0.0050	<0.0051	<0.0010	<0.030
SW-12B	ALS	2024-10-09	WP2424079	<0.0000050		<0.0000050		0.00012	0.000132	0.00093	0.00109	<0.0050	<0.0051	<0.0010	<0.030
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016		0.141										
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016				2.75								
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015		0.138										
SW-13	SGS	2022-10-19	CA15422-OCT22	< 0.00001		< 0.00001		0.00046	0.00043	0.0015	0.0011	< 0.06	< 0.06	< 0.03	
SW-14	SGS	2022-04-26	CA15019-MAY22	< 0.00001				0.0004	< 0.00004	0.0004	< 0.0001	0.21	0.21	< 0.03	
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002				5.63								
SW-14	Flett	2022-06-05	MTWATR061722JS2-002		0.09										
SW-14	SGS	2022-06-05	CA15234-JUN22	< 0.00001		< 0.00001		0.00015	0.00017	0.0005	0.0006	< 0.06	< 0.06	< 0.03	
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008				2.72								
SW-14	Flett	2022-08-30	MTWATR092022JS1-007		0.051										
SW-14	SGS	2022-09-20	CA13964-SEP22			< 0.00001		0.00083	0.00017	0.0004	0.0004	< 0.06	< 0.06	< 0.03	
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005				3.22								
SW-14	Flett	2022-10-19	MTWATR110722JS1-005		0.097										
SW-14	SGS	2022-10-19	CA15422-OCT22	< 0.00001		< 0.00001		0.00065	0.00087	0.0006	0.001	< 0.06	< 0.06	< 0.03	
SW-14	SGS	2023-01-18	CA13675-JAN23	< 0.00001		< 0.00001		0.00026	0.00022	0.0007	0.0008	0.06	0.06	< 0.03	
SW-14	SGS	2023-02-08	CA15284-FEB23	< 0.00001		< 0.00001		0.00025	0.00027	0.0005	0.0006	0.07	0.07	< 0.03	
SW-14	SGS	2023-02-08	CA15284-FEB23	< 0.00001		< 0.00001		0.0003	0.00028	0.0005	0.0006	< 0.06	< 0.06	< 0.03	
SW-14	SGS	2023-03-23	CA13921-MAR23	< 0.00001		< 0.00001		0.00026	0.00021	0.0005	0.0004	< 0.06	< 0.06	< 0.03	
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014				2.32								
SW-14	Flett	2023-05-26	MTWATR060823JS1-016		0.07										
SW-14	ALS	2023-05-30	WP2310312-003	<0.0000050		<0.0000050		0.000213	0.000171	<0.00050	<0.00050	0.0126	0.0126	<0.0010	
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004				2.06								
SW-14	Flett	2023-08-13	MTWATR082323JS1-005		0.036										
SW-14	ALS	2023-08-13	WP2319515-001	<0.0000050		<0.0000050		0.000188	0.000293	<0.00050	0.00052	<0.0050	<0.0051	<0.0010	
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009				1.55								

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-11	ALS	2024-07-10	WP2417255	0.047											
SW-11	ALS	2024-07-10	WP2417255	0.045	0.06	0.087	0.06	1.51	1.55		0.00211	0.00214	0.000308	0.000235	5.86
SW-11	ALS	2024-08-10	WP2419573	<0.030	0.045	0.0666	<0.050	1.24	1.3		0.00186	0.00201	0.000241	0.000224	5.57
SW-11	ALS	2024-09-03	WP2421465	0.05											
SW-11	ALS	2024-09-03	WP2421465	0.05	0.091	0.135	0.091	1.17	1.2		0.00142	0.00141	0.000282	0.000183	4.33
SW-11	Flett	2024-09-03	TMWATR092924CH1-010												
SW-11	Flett	2024-09-03	MTWATR100124JS1-012												
SW-11	ALS	2024-10-05	WP2423572		0.064	0.0533		1.33	1.21		0.00155	0.00164	0.000272	0.000217	5.8
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001												
SW-11	Flett	2024-10-05	MTWATR112724JS1-001												
SW-11	ALS	2024-11-02	WP2425500		0.069	0.07		1.41	1.36		0.00116	0.00125	0.000155	0.000137	4.94
SW-11	Flett	2024-11-02	MTWATR120424JS2-002												
SW-11	Flett	2024-11-02	MTWATR120424JS2-001												
SW-11	Flett	2024-11-02	TMWATR112524CH1-001												
SW-11	ALS	2024-12-02	WP2426974		<0.030	0.0563		1.24	0.897		0.00135	0.00164	0.000086	0.000088	6.9
SW-11	Flett	2024-12-02	TMWATR012125CH1-003												
SW-11	Flett	2024-12-02	MTWATR121924JS1-003												
SW-12	SGS	2022-10-19	CA15422-OCT22	0.1			0.093	0.396	0.449				0.00605	0.00472	6.29
SW-12B	ALS	2023-05-30	WP2310312-002	<0.030		0.0206	<0.030	1.04	1.13		0.00121	0.00128	0.000127	0.000149	0.683
SW-12B	ALS	2023-08-13	WP2319515-003	<0.030		0.038	0.042	1.39	1.48		0.00168	0.00173	0.000101	0.000134	0.73
SW-12B	ALS	2023-10-15	WP2326560	<0.030	<0.030	0.0261	<0.050	0.292	0.257		0.0006	0.00065	0.000177	0.000173	6.16
SW-12B	ALS	2023-10-15	WP2326560-002				<0.030								
SW-12B	ALS	2024-02-07	WP2403186	0.444	0.533	0.542	0.533	3.23	3.17		0.00266	0.00289	0.00012	0.000131	3.77
SW-12B	ALS	2024-02-07	WP2403186-006												
SW-12B	ALS	2024-05-26	WP2413300	<0.030	<0.030	0.0161	<0.050	0.394	0.427		0.0007	0.00065	0.00012	0.000138	3.4
SW-12B	ALS	2024-08-12	WP2419654	<0.050	<0.030	0.0195	<0.050	0.071	0.094		<0.00020	0.00024	0.000145	0.000143	5.05
SW-12B	ALS	2024-10-09	WP2424079		<0.030	0.0203		0.742	0.694		0.00103	0.00103	0.000105	0.000128	3.76
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016												
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016												
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015												
SW-13	SGS	2022-10-19	CA15422-OCT22	0.091			0.085	0.759	0.826				0.00469	0.00449	5.34
SW-14	SGS	2022-04-26	CA15019-MAY22	< 0.003			0.004	0.064	0.081				0.0002	< 0.00004	< 0.02
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002												
SW-14	Flett	2022-06-05	MTWATR061722JS2-002												
SW-14	SGS	2022-06-05	CA15234-JUN22	0.01			0.012	1.07	1.22				0.00007	0.00009	0.97
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008												
SW-14	Flett	2022-08-30	MTWATR092022JS1-007												
SW-14	SGS	2022-09-20	CA13964-SEP22	< 0.003			0.018	1.6	1.63				0.00023	0.00012	1.3
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005												
SW-14	Flett	2022-10-19	MTWATR110722JS1-005												
SW-14	SGS	2022-10-19	CA15422-OCT22	0.026			0.098	1.67	1.84				0.00152	0.00432	0.72
SW-14	SGS	2023-01-18	CA13675-JAN23	0.021			0.036	2.42	2.46				0.00081	0.00086	1.54
SW-14	SGS	2023-02-08	CA15284-FEB23	0.023			0.024	2.17	2.3				0.00013	0.00017	1.23
SW-14	SGS	2023-02-08	CA15284-FEB23	0.024			0.022	2.13	2.27				0.00014	0.00018	1.25
SW-14	SGS	2023-03-23	CA13921-MAR23	0.013			0.018	2.34	2.28				< 0.00004	< 0.00004	2
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014												
SW-14	Flett	2023-05-26	MTWATR060823JS1-016												
SW-14	ALS	2023-05-30	WP2310312-003	<0.030		0.0176	<0.030	1.21	1.29		0.00139	0.00141	0.000101	0.000137	0.45
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004												
SW-14	Flett	2023-08-13	MTWATR082323JS1-005												
SW-14	ALS	2023-08-13	WP2319515-001	<0.030		0.0313	<0.030	1.41	1.44		0.0016	0.00169	0.000095	0.000137	0.814
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-11	ALS	2024-07-10	WP2417255													
SW-11	ALS	2024-07-10	WP2417255	5.93	<0.000010	<0.000010	5.08	5.15	172	4.6	0.0506	0.049	<0.50	<0.50	<0.30	<0.00020
SW-11	ALS	2024-08-10	WP2419573	6.02	0.000012	0.00001	4.41	4.59	168	19.3	0.0368	0.039	1.21	1.17	2.61	<0.00020
SW-11	ALS	2024-09-03	WP2421465													
SW-11	ALS	2024-09-03	WP2421465	4.75	<0.000010	<0.000010	4.83	5.52	166	20.9	0.0522	0.0537	0.7	0.54	0.65	<0.00020
SW-11	Flett	2024-09-03	TMWATR092924CH1-010													
SW-11	Flett	2024-09-03	MTWATR100124JS1-012													
SW-11	ALS	2024-10-05	WP2423572	6.29	0.000015	<0.000010	5.35	5.22	161	3.9	0.0523	0.0498	1.02	1.06	1.43	<0.00020
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001													
SW-11	Flett	2024-10-05	MTWATR112724JS1-001													
SW-11	ALS	2024-11-02	WP2425500	5.24	<0.000010	<0.000010	5.67	5.45	166	4.2	0.0601	0.0629	0.77	0.88	1.4	<0.00020
SW-11	Flett	2024-11-02	MTWATR120424JS2-002													
SW-11	Flett	2024-11-02	MTWATR120424JS2-001													
SW-11	Flett	2024-11-02	TMWATR112524CH1-001													
SW-11	ALS	2024-12-02	WP2426974	4.88	<0.000010	<0.000010	4.46	3.16	156	4.8	0.0414	0.0293	1.81	0.91	3.76	<0.00020
SW-11	Flett	2024-12-02	TMWATR012125CH1-003													
SW-11	Flett	2024-12-02	MTWATR121924JS1-003													
SW-12	SGS	2022-10-19	CA15422-OCT22	7.51	0.00007	0.00006	1.39	1.59	49	11	0.0161	0.0185	2	2	< 2	
SW-12B	ALS	2023-05-30	WP2310312-002	0.8	<0.000010	<0.000010	2.85	2.97	83.9	2.2	0.0239	0.0237	<0.50	<0.50	0.43	<0.00020
SW-12B	ALS	2023-08-13	WP2319515-003	1.21	<0.000010	<0.000010	3.64	3.97	82	8.8	0.0332	0.0379	<0.50	0.64	0.35	<0.00020
SW-12B	ALS	2023-10-15	WP2326560	6.64	<0.000010	<0.000010	2.3	2.09	136	4.8	0.0317	0.0306	1.89	1.28	3.72	<0.00020
SW-12B	ALS	2023-10-15	WP2326560-002													
SW-12B	ALS	2024-02-07	WP2403186	6.02	<0.000010	<0.000010	4.81	6.52	157	48.5	0.0408	0.0456	1.17	1.16	0.85	<0.00020
SW-12B	ALS	2024-02-07	WP2403186-006													
SW-12B	ALS	2024-05-26	WP2413300	3.79	<0.000010	<0.000010	1.69	1.68	81.3	<1.0	0.0239	0.0249	<0.50	0.75	1.22	<0.00020
SW-12B	ALS	2024-08-12	WP2419654	5.43	<0.000010	0.000013	1.62	1.79	137	1.4	0.0354	0.0379	<0.50	<0.50	<0.30	<0.00020
SW-12B	ALS	2024-10-09	WP2424079	3.91	<0.000010	<0.000010	3.29	3.31	116	3.5	0.0322	0.0324	0.54	<0.50	<0.30	<0.00020
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016													
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016													
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015													
SW-13	SGS	2022-10-19	CA15422-OCT22	6.08	0.00007	0.00006	12.9	14.2	140	< 2	0.0352	0.0387	2	2	< 2	
SW-14	SGS	2022-04-26	CA15019-MAY22	0.03	< 0.00005	< 0.00005	0.16	0.17	< 30	2	0.00326	0.00354	< 1	< 1	< 2	
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002													
SW-14	Flett	2022-06-05	MTWATR061722JS2-002													
SW-14	SGS	2022-06-05	CA15234-JUN22	1.2	< 0.00005	< 0.00005	2.72	3.11	43	3	0.0154	0.0169		< 1	< 2	
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008													
SW-14	Flett	2022-08-30	MTWATR092022JS1-007													
SW-14	SGS	2022-09-20	CA13964-SEP22	1.33	< 0.00005	< 0.00005	3.13	3.3	74	8	0.0251	0.0262	1	1	< 2	
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005													
SW-14	Flett	2022-10-19	MTWATR110722JS1-005													
SW-14	SGS	2022-10-19	CA15422-OCT22	1.12	< 0.00005	0.00007	3.2	3.45	83	13	0.0308	0.0339	1	2	< 2	
SW-14	SGS	2023-01-18	CA13675-JAN23	1.86	< 0.00005	< 0.00005	4.76	4.52	131	4	0.0417	0.0429	< 1	< 1	< 2	
SW-14	SGS	2023-02-08	CA15284-FEB23	1.3	< 0.00005	< 0.00005	4.44	4.63	120	< 2	0.042	0.0444	< 1	< 1	< 2	
SW-14	SGS	2023-02-08	CA15284-FEB23	1.33	< 0.00005	< 0.00005	4.64	4.68	129	2	0.0421	0.044	< 1	< 1	< 2	
SW-14	SGS	2023-03-23	CA13921-MAR23	2.1	< 0.00005	< 0.00005	4.92	4.8	129	2	0.0509	0.0495	< 1	< 1	< 2	
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014													
SW-14	Flett	2023-05-26	MTWATR060823JS1-016													
SW-14	ALS	2023-05-30	WP2310312-003	0.59	<0.000010	<0.000010	3.13	3.18	80.6	2.5	0.0245	0.0244	<0.50	<0.50	0.48	0.00031
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004													
SW-14	Flett	2023-08-13	MTWATR082323JS1-005													
SW-14	ALS	2023-08-13	WP2319515-001	0.96	<0.000010	<0.000010	4.08	3.75	85	4.5	0.0319	0.0368	<0.50	0.58	0.36	<0.00020
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-11	ALS	2024-07-10	WP2417255													
SW-11	ALS	2024-07-10	WP2417255	<0.00020	<0.000010	<0.000010	0.00035	0.00035	<0.00010	<0.00010	0.0127	0.0137		0.00037	0.00036	0.00018
SW-11	ALS	2024-08-10	WP2419573	<0.00020	<0.000010	<0.000010	0.0004	0.00029	<0.00010	<0.00010	0.014	0.0182		0.00023	0.00023	0.000127
SW-11	ALS	2024-09-03	WP2421465													
SW-11	ALS	2024-09-03	WP2421465	<0.00020	<0.000010	<0.000010	0.00024	0.0002	<0.00010	<0.00010	0.00683	0.0102		0.00016	0.00016	0.0001
SW-11	Flett	2024-09-03	TMWATR092924CH1-010													
SW-11	Flett	2024-09-03	MTWATR100124JS1-012													
SW-11	ALS	2024-10-05	WP2423572	<0.00020	<0.000010	<0.000010	0.00041	0.00029	<0.00010	<0.00010	0.0133	0.0125		0.00014	0.00013	0.000155
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001													
SW-11	Flett	2024-10-05	MTWATR112724JS1-001													
SW-11	ALS	2024-11-02	WP2425500	<0.00020	<0.000010	<0.000010	0.00014	0.00014	<0.00010	<0.00010	0.0038	0.0062		<0.00010	<0.00010	0.000125
SW-11	Flett	2024-11-02	MTWATR120424JS2-002													
SW-11	Flett	2024-11-02	MTWATR120424JS2-001													
SW-11	Flett	2024-11-02	TMWATR112524CH1-001													
SW-11	ALS	2024-12-02	WP2426974	<0.00020	<0.000010	<0.000010	0.0003	0.00017	<0.00010	<0.00010	0.013	0.0234		<0.00010	<0.00010	0.000156
SW-11	Flett	2024-12-02	TMWATR012125CH1-003													
SW-11	Flett	2024-12-02	MTWATR121924JS1-003													
SW-12	SGS	2022-10-19	CA15422-OCT22		0.000028	0.000012			0.00019	< 0.00006	0.0126	0.0143	24	0.00006	0.00003	0.000262
SW-12B	ALS	2023-05-30	WP2310312-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00113	0.00201		<0.00010	<0.00010	0.000066
SW-12B	ALS	2023-08-13	WP2319515-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	0.00021	<0.00030	0.00203		<0.00010	<0.00010	0.000052
SW-12B	ALS	2023-10-15	WP2326560	<0.00020	<0.000010	<0.000010	0.00011	<0.00010	<0.00010	<0.00010	0.00395	0.00509		<0.00010	<0.00010	0.000123
SW-12B	ALS	2023-10-15	WP2326560-002													
SW-12B	ALS	2024-02-07	WP2403186	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00178	0.0106		<0.00010	<0.00010	0.000065
SW-12B	ALS	2024-02-07	WP2403186-006													
SW-12B	ALS	2024-05-26	WP2413300	<0.00020	<0.000010	<0.000010	0.00014	0.00013	<0.00010	<0.00010	0.00228	0.00229		<0.00010	<0.00010	0.000088
SW-12B	ALS	2024-08-12	WP2419654	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00185	0.00245		<0.00010	<0.00010	0.000064
SW-12B	ALS	2024-10-09	WP2424079	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00099	0.00218		<0.00010	<0.00010	0.000055
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016													
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016													
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015													
SW-13	SGS	2022-10-19	CA15422-OCT22		0.00002	0.000006			0.00012	0.00006	0.00865	0.00775	28	0.00004	< 0.00002	0.000081
SW-14	SGS	2022-04-26	CA15019-MAY22		< 0.000005	< 0.000005			0.00008	0.00008	< 0.00005	< 0.00005	2	< 0.00002	< 0.00002	0.000004
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002													
SW-14	Flett	2022-06-05	MTWATR061722JS2-002													
SW-14	SGS	2022-06-05	CA15234-JUN22		< 0.000005	< 0.000005			< 0.00006	< 0.00006			19	< 0.00002	< 0.00002	0.000047
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008													
SW-14	Flett	2022-08-30	MTWATR092022JS1-007													
SW-14	SGS	2022-09-20	CA13964-SEP22		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00066	0.00096	26	0.00055	0.00013	0.000051
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005													
SW-14	Flett	2022-10-19	MTWATR110722JS1-005													
SW-14	SGS	2022-10-19	CA15422-OCT22		< 0.000005	0.000008			0.00008	0.00007	0.00258	0.0134	25	< 0.00002	< 0.00002	0.000147
SW-14	SGS	2023-01-18	CA13675-JAN23		0.000005	0.000011			< 0.00006	0.00011	0.00169	0.00756	29	< 0.00002	0.00003	0.000102
SW-14	SGS	2023-02-08	CA15284-FEB23		< 0.000005	< 0.000005			< 0.00006	0.00008	0.00103	0.00161	27	< 0.00002	< 0.00002	0.00007
SW-14	SGS	2023-02-08	CA15284-FEB23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00117	0.00367	27	< 0.00002	< 0.00002	0.000095
SW-14	SGS	2023-03-23	CA13921-MAR23		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00127	0.00181	28	< 0.00002	< 0.00002	0.000083
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014													
SW-14	Flett	2023-05-26	MTWATR060823JS1-016													
SW-14	ALS	2023-05-30	WP2310312-003	0.0003	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00088	0.00178		<0.00010	<0.00010	0.000072
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004													
SW-14	Flett	2023-08-13	MTWATR082323JS1-005													
SW-14	ALS	2023-08-13	WP2319515-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	0.0015	<0.00030	0.00088		<0.00010	<0.00010	0.00006
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-11	ALS	2024-07-10	WP2417255									
SW-11	ALS	2024-07-10	WP2417255	0.000165	0.00209	0.00252			0.0023	<0.0030	0.00184	0.00174
SW-11	ALS	2024-08-10	WP2419573	0.000139	0.00208	0.00295			0.003	0.004	0.00181	0.0017
SW-11	ALS	2024-09-03	WP2421465									
SW-11	ALS	2024-09-03	WP2421465	0.000105	0.00118	0.00189			0.0012	<0.0030	0.00121	0.00108
SW-11	Flett	2024-09-03	TMWATR092924CH1-010									
SW-11	Flett	2024-09-03	MTWATR100124JS1-012									
SW-11	ALS	2024-10-05	WP2423572	0.000152	0.00148	0.00182			0.0024	<0.0030	0.00183	0.00136
SW-11	Flett	2024-10-05	TMWATR102824ZB1-001									
SW-11	Flett	2024-10-05	MTWATR112724JS1-001									
SW-11	ALS	2024-11-02	WP2425500	0.000133	0.00086	0.00121			<0.0010	<0.0030	0.00094	0.00083
SW-11	Flett	2024-11-02	MTWATR120424JS2-002									
SW-11	Flett	2024-11-02	MTWATR120424JS2-001									
SW-11	Flett	2024-11-02	TMWATR112524CH1-001									
SW-11	ALS	2024-12-02	WP2426974	0.000123	0.00136	0.00165			0.003	<0.0030	0.00135	0.00077
SW-11	Flett	2024-12-02	TMWATR012125CH1-003									
SW-11	Flett	2024-12-02	MTWATR121924JS1-003									
SW-12	SGS	2022-10-19	CA15422-OCT22	0.00027	0.00097	0.00147	0.00104	0.0012	0.005	0.003	< 0.002	< 0.002
SW-12B	ALS	2023-05-30	WP2310312-002	0.000054	<0.00050	0.00064			<0.0010	<0.0030	<0.00030	0.00021
SW-12B	ALS	2023-08-13	WP2319515-003	0.000054	<0.00050	0.00056			<0.0010	<0.0030	<0.00030	<0.00020
SW-12B	ALS	2023-10-15	WP2326560	0.00011	0.0013	0.00142			0.0011	<0.0030	0.00057	0.00041
SW-12B	ALS	2023-10-15	WP2326560-002									
SW-12B	ALS	2024-02-07	WP2403186	0.000122	0.00083	0.00123			0.0042	0.0074	0.00031	0.00027
SW-12B	ALS	2024-02-07	WP2403186-006									
SW-12B	ALS	2024-05-26	WP2413300	0.000076	0.00072	0.00075			0.0013	<0.0030	0.00054	0.00053
SW-12B	ALS	2024-08-12	WP2419654	0.000069	<0.00050	0.0008			<0.0010	0.0033	0.00045	0.00045
SW-12B	ALS	2024-10-09	WP2424079	0.000059	<0.00050	<0.00050			0.0011	<0.0030	0.00033	0.0003
SW-12B	Flett	2024-10-09	MTWATR112724JS1-016									
SW-12B	Flett	2024-10-09	TMWATR102824ZB1-016									
SW-12B	Flett	2024-10-09	MTWATR112724JS1-015									
SW-13	SGS	2022-10-19	CA15422-OCT22	0.000055	0.00057	0.00064	0.00039	0.00043	0.005	0.003	< 0.002	< 0.002
SW-14	SGS	2022-04-26	CA15019-MAY22	0.000004	0.00016	0.00012	< 0.00002	< 0.00002	< 0.002	< 0.002	< 0.002	< 0.002
SW-14	Flett	2022-06-05	TMWATR061322ZB1-002									
SW-14	Flett	2022-06-05	MTWATR061722JS2-002									
SW-14	SGS	2022-06-05	CA15234-JUN22	0.000054	0.00038	0.00047	0.00013	0.00015	0.002	0.003	< 0.002	< 0.002
SW-14	Flett	2022-08-30	TMWATR091622ZB1-008									
SW-14	Flett	2022-08-30	MTWATR092022JS1-007									
SW-14	SGS	2022-09-20	CA13964-SEP22	0.000046	0.00033	0.00049	0.00009	0.00011	< 0.002	< 0.002	< 0.002	< 0.002
SW-14	Flett	2022-10-19	TMWATR111022ZB3-005									
SW-14	Flett	2022-10-19	MTWATR110722JS1-005									
SW-14	SGS	2022-10-19	CA15422-OCT22	0.00011	0.00038	0.00095	0.00015	0.0003	0.003	0.003	< 0.002	< 0.002
SW-14	SGS	2023-01-18	CA13675-JAN23	0.000114	0.0004	0.00077	0.00017	0.00021	< 0.002	< 0.002	< 0.002	< 0.002
SW-14	SGS	2023-02-08	CA15284-FEB23	0.000077	0.00037	0.0004	0.00014	0.00015	0.018	0.022	< 0.002	< 0.002
SW-14	SGS	2023-02-08	CA15284-FEB23	0.000089	0.00032	0.00043	0.00014	0.00015	0.052	0.034	< 0.002	< 0.002
SW-14	SGS	2023-03-23	CA13921-MAR23	0.000088	0.00034	0.00041	0.00016	0.00018	0.003	0.002	< 0.002	< 0.002
SW-14	Flett	2023-05-26	TMWATR060923ZB1-014									
SW-14	Flett	2023-05-26	MTWATR060823JS1-016									
SW-14	ALS	2023-05-30	WP2310312-003	0.000061	<0.00050	0.00055			<0.0010	<0.0030	<0.00030	<0.00020
SW-14	Flett	2023-08-13	TMWATR082323ZB1-004									
SW-14	Flett	2023-08-13	MTWATR082323JS1-005									
SW-14	ALS	2023-08-13	WP2319515-001	0.00005	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14	Flett	2023-10-13	TMWATR110223ZB1-009									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009											
SW-14	ALS	2023-10-13	WP2326557-003	7.42	7.52	8.5	<2.0	40.9	<1.0	<1.0	<1.0	40.9	0.0158	0.0452
SW-14	ALS	2024-02-07	WP2403186	7.15	7.05	1.2	7.5	54.6	<1.0	<1.0	<1.0	54.6	0.0165	0.0445
SW-14	Flett	2024-02-07	TMWATR022824CH1-008											
SW-14	Flett	2024-02-07	MTWATR030824JS1-007											
SW-14	ALS	2024-02-07	WP2403186-004											
SW-14	ALS	2024-05-26	WP2413300	7.74	7.52	11	<2.0	34	<1.0	<1.0	<1.0	34	0.0344	0.0948
SW-14	Flett	2024-05-26	TMWATR061924CH1-007											
SW-14	Flett	2024-05-26	MTWATR061024JS1-007											
SW-14	ALS	2024-08-12	WP2419654	7.45	7.61	20.1	<2.0	35.2	<1.0	<1.0	<1.0	35.2	0.0246	0.0357
SW-14	Flett	2024-08-12	TMWATR091224CH1-007											
SW-14	Flett	2024-08-12	MTWATR091824JS1-003											
SW-14	ALS	2024-10-09	WP2424079	7.83	7.55	9.5	<2.0	36.2	<1.0	<1.0	<1.0	36.2	0.0208	0.0481
SW-14	Flett	2024-10-09	MTWATR112624JS1-001											
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001											
SW-14-B	ALS	2023-05-30	WP2310312-004	7.81	7.72	21.4	2.7	33.7	<1.0	<1.0	<1.0	33.7	0.0416	<0.0030
SW-14-B	ALS	2023-08-13	WP2319515-002	7.77	7.68	18.3	2.1	42.4	<1.0	<1.0	<1.0	42.4	0.0232	0.0505
SW-14-B	ALS	2023-10-13	WP2326557-004	7.27	7.53	8.3	<2.0	41	<1.0	<1.0	<1.0	41	0.0157	0.0503
SW-14-B	ALS	2024-02-07	WP2403186	6.93	7.15	4.1	7.2	57	<1.0	<1.0	<1.0	57	0.0215	0.0273
SW-14-B	ALS	2024-02-07	WP2403186-005											
SW-14-B	ALS	2024-05-26	WP2413300	7	7.51	11	<2.0	34	<1.0	<1.0	<1.0	34	0.0259	0.0955
SW-14-B	ALS	2024-08-12	WP2419654	6.57	7.63	18.9	<2.0	34.8	<1.0	<1.0	<1.0	34.8	0.0236	0.0395
SW-14-B	ALS	2024-10-09	WP2424079	7.78	7.5	9.6	<2.0	35.5	<1.0	<1.0	<1.0	35.5	0.0176	0.0556
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015											
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014											
SW-15	SGS	2022-04-26	CA15019-MAY22		7.15		< 2					27		0.775
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004											
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003											
SW-15	Flett	2022-06-05	MTWATR061722JS2-003											
SW-15	SGS	2022-06-05	CA15234-JUN22		7.03		< 2					22		0.313
SW-15	SGS	2022-07-26	CA15458-JUL22	5.55	7.67	19.2	< 2					41		1.02
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012											
SW-15	Flett	2022-08-09	MTWATR092022JS1-011											
SW-15	SGS	2022-08-09	CA15226-AUG22	7.17	7.24	23.3	< 2					34	0.336	0.557
SW-15	SGS	2022-09-14	CA15266-SEP22	6.77	7.3	14.9	< 2					40	0.135	0.17
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007											
SW-15	Flett	2022-10-18	MTWATR110722JS1-007											
SW-15	SGS	2022-11-07	CA15216-NOV22	7.08	7.65	2.2	< 2					49		0.043
SW-15	SGS	2023-01-18	CA13675-JAN23	6.62	7.25	0.64	< 2					71		0.288
SW-15	SGS	2023-02-13	CA15347-FEB23	7.14	7.71	3.52	< 2					65	0.056	0.258
SW-15	SGS	2023-03-21	CA15408-MAR23	6.64	7.26	1.36	< 2					75	0.053	0.308
SW-15	SGS	2023-04-19	CA15419-APR23	6.98	7.2	1.05	< 2					36	0.135	0.622
SW-15	ALS	2023-05-21	WP2309398	6.85	7.5	14.3	2.1	38.8	<1.0	<1.0	<1.0	38.8	0.0846	0.419
SW-15	ALS	2023-05-21	WP2309398-001											
SW-15	ALS	2023-07-16	WP2316171	7.76	7.84	18.1	<2.0	82.1	<1.0	<1.0	<1.0	82.1	0.0389	0.183
SW-15	ALS	2023-07-16	WP2316171-001											
SW-15	ALS	2023-08-11	WP2319515-004	7.46	7.74	19.4	4.2	91.6	<1.0	<1.0	<1.0	91.6	0.0593	0.228
SW-15	ALS	2023-10-14	WP2326559-005	6.43	7.35	7.1	6.3	60.2	<1.0	<1.0	<1.0	60.2	0.187	0.919
SW-15	ALS	2024-02-05	WP2402956	6.83	7.23	1.7	6.5	71.3	<1.0	<1.0	<1.0	71.3	0.0347	0.24
SW-15	ALS	2024-02-05	WP2402956	6.83	7.17	1.7	7.7	70.1	<1.0	<1.0	<1.0	70.1	0.0365	0.24
SW-15	ALS	2024-02-05	WP2402956-001											
SW-15	ALS	2024-02-05	WP2402956-005											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009												
SW-14	ALS	2023-10-13	WP2326557-003		0.0264	<0.0010		<0.00010	<0.00010	0.00192	0.00201	0.0116	0.0118	<0.000020	<0.000020
SW-14	ALS	2024-02-07	WP2403186			<0.0010	0.193	<0.00010	<0.00010	0.00136	0.00184	0.00973	0.0142	<0.000020	<0.000020
SW-14	Flett	2024-02-07	TMWATR022824CH1-008												
SW-14	Flett	2024-02-07	MTWATR030824JS1-007												
SW-14	ALS	2024-02-07	WP2403186-004		0.193										
SW-14	ALS	2024-05-26	WP2413300			<0.0010	<0.0050	<0.00010	<0.00010	0.00145	0.00156	0.00892	0.00904	<0.000020	<0.000020
SW-14	Flett	2024-05-26	TMWATR061924CH1-007												
SW-14	Flett	2024-05-26	MTWATR061024JS1-007												
SW-14	ALS	2024-08-12	WP2419654			<0.0010	0.0109	<0.00010	<0.00010	0.00262	0.00285	0.00768	0.00816	<0.000020	<0.000020
SW-14	Flett	2024-08-12	TMWATR091224CH1-007												
SW-14	Flett	2024-08-12	MTWATR091824JS1-003												
SW-14	ALS	2024-10-09	WP2424079			<0.0010	0.0148	<0.00010	<0.00010	0.00201	0.00233	0.00914	0.0102	<0.000020	<0.000020
SW-14	Flett	2024-10-09	MTWATR112624JS1-001												
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001												
SW-14-B	ALS	2023-05-30	WP2310312-004		0.018	<0.0010		<0.00010	<0.00010	0.00248	0.0118	0.00743	0.176	<0.000020	<0.000020
SW-14-B	ALS	2023-08-13	WP2319515-002		<0.010	<0.0010		<0.00010	<0.00010	0.00282	0.00334	0.0111	0.0121	<0.000020	<0.000020
SW-14-B	ALS	2023-10-13	WP2326557-004		<0.0050	<0.0010		<0.00010	<0.00010	0.00187	0.00208	0.0113	0.0118	<0.000020	<0.000020
SW-14-B	ALS	2024-02-07	WP2403186			<0.0010	0.0575	<0.00010	<0.00010	0.00186	0.00197	0.0135	0.0142	<0.000020	<0.000020
SW-14-B	ALS	2024-02-07	WP2403186-005		0.0575										
SW-14-B	ALS	2024-05-26	WP2413300			<0.0010	<0.0050	<0.00010	<0.00010	0.00143	0.00157	0.00939	0.0092	<0.000020	<0.000020
SW-14-B	ALS	2024-08-12	WP2419654			<0.0010	0.0104	<0.00010	0.00011	0.0026	0.00291	0.00768	0.00825	<0.000020	<0.000020
SW-14-B	ALS	2024-10-09	WP2424079			<0.0010	0.0178	<0.00010	<0.00010	0.00205	0.00231	0.00908	0.0103	<0.000020	<0.000020
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015												
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014												
SW-15	SGS	2022-04-26	CA15019-MAY22	0.062			0.1	< 0.0009	< 0.0009	0.001	0.0008	0.00622	0.0113	< 0.000007	0.00002
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004												
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003												
SW-15	Flett	2022-06-05	MTWATR061722JS2-003												
SW-15	SGS	2022-06-05	CA15234-JUN22	0.119			< 0.1	< 0.0009	< 0.0009	0.002	0.0023	0.00791	0.0105	0.000008	0.000014
SW-15	SGS	2022-07-26	CA15458-JUL22	0.084			0.2	< 0.0009	< 0.0009	0.0039	0.0038	0.0162	0.0168	0.00004	0.000042
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012												
SW-15	Flett	2022-08-09	MTWATR092022JS1-011												
SW-15	SGS	2022-08-09	CA15226-AUG22	0.092			< 0.1	< 0.0009	< 0.0009	0.0036	0.0034	0.0135	0.0142	0.000028	0.000026
SW-15	SGS	2022-09-14	CA15266-SEP22	0.05			0.2	< 0.0009	< 0.0009	0.0029	0.0027	0.0108	0.0105	0.000014	0.000017
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007												
SW-15	Flett	2022-10-18	MTWATR110722JS1-007												
SW-15	SGS	2022-11-07	CA15216-NOV22	0.043			< 0.1	< 0.0009	< 0.0009	0.0017	0.0015	0.0115	0.0109	< 0.000007	0.000034
SW-15	SGS	2023-01-18	CA13675-JAN23	0.049			< 0.1	< 0.0009	< 0.0009	0.0026	0.0024	0.0153	0.0177	0.000046	0.000075
SW-15	SGS	2023-02-13	CA15347-FEB23	0.051			< 0.1	< 0.0009	< 0.0009	0.0018	0.0024	0.0146	0.0164	0.000015	0.000021
SW-15	SGS	2023-03-21	CA15408-MAR23	0.044			< 0.1	< 0.0009	< 0.0009	0.0018	0.0024	0.0157	0.0188	0.000012	0.000019
SW-15	SGS	2023-04-19	CA15419-APR23	0.076			< 0.1	< 0.0009	< 0.0009	0.002	0.0022	0.0107	0.014	0.000012	0.000026
SW-15	ALS	2023-05-21	WP2309398			<0.0010	0.028	<0.00010	<0.00010	0.00187	0.00206	0.00867	0.0108	<0.000020	0.000024
SW-15	ALS	2023-05-21	WP2309398-001		0.028										
SW-15	ALS	2023-07-16	WP2316171			<0.0010	0.024	<0.00010	<0.00010	0.00376	0.004	0.013	0.0152	<0.000020	<0.000020
SW-15	ALS	2023-07-16	WP2316171-001		0.024										
SW-15	ALS	2023-08-11	WP2319515-004		<0.010	<0.0010		<0.00010	<0.00010	0.00292	0.00304	0.0161	0.0184	<0.000020	<0.000020
SW-15	ALS	2023-10-14	WP2326559-005		0.0193	<0.0010		<0.00010	<0.00010	0.00267	0.00284	0.0149	0.0208	<0.000020	0.000037
SW-15	ALS	2024-02-05	WP2402956			<0.0010	0.0643	<0.00010	0.00017	0.00147	0.00173	0.0135	0.0163	<0.000020	<0.000020
SW-15	ALS	2024-02-05	WP2402956			<0.0010	0.0407	<0.00010	<0.00010	0.0014	0.00175	0.0136	0.0163	<0.000020	<0.000020
SW-15	ALS	2024-02-05	WP2402956-001		0.0407										
SW-15	ALS	2024-02-05	WP2402956-005		0.0643										

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009													
SW-14	ALS	2023-10-13	WP2326557-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	13.4	11.4	18	<0.000010	<0.000010		3.87
SW-14	ALS	2024-02-07	WP2403186	<0.000050	<0.000050	<0.010	<0.010	0.0000089	0.0000054	11.2	15.7	9.39	<0.000010	<0.000010		5.22
SW-14	Flett	2024-02-07	TMWATR022824CH1-008													
SW-14	Flett	2024-02-07	MTWATR030824JS1-007													
SW-14	ALS	2024-02-07	WP2403186-004													
SW-14	ALS	2024-05-26	WP2413300	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.65	10.1	20.6	<0.000010	<0.000010		4.27
SW-14	Flett	2024-05-26	TMWATR061924CH1-007													
SW-14	Flett	2024-05-26	MTWATR061024JS1-007													
SW-14	ALS	2024-08-12	WP2419654	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.75	9.95	23.6	<0.000010	<0.000010		4.94
SW-14	Flett	2024-08-12	TMWATR091224CH1-007													
SW-14	Flett	2024-08-12	MTWATR091824JS1-003													
SW-14	ALS	2024-10-09	WP2424079	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.91	9.6	23.3	<0.000010	<0.000010		5.05
SW-14	Flett	2024-10-09	MTWATR112624JS1-001													
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001													
SW-14-B	ALS	2023-05-30	WP2310312-004	<0.000050	<0.000050	<0.010	0.052	<0.0000050	<0.0000050	9.45	70.8	23.2	<0.000010	<0.000010		3.55
SW-14-B	ALS	2023-08-13	WP2319515-002	<0.000050	<0.000050	0.011	<0.010	<0.0000050	<0.0000050	12.7	13	22.1	<0.000010	<0.000010		4
SW-14-B	ALS	2023-10-13	WP2326557-004	<0.000050	<0.000050	0.01	<0.010	<0.0000050	<0.0000050	13.1	11.7	18.4	<0.000010	<0.000010		3.84
SW-14-B	ALS	2024-02-07	WP2403186	<0.000050	<0.000050	0.012	0.01	<0.0000050	<0.0000050	16.3	17.1	23.8	<0.000010	<0.000010		5.43
SW-14-B	ALS	2024-02-07	WP2403186-005													
SW-14-B	ALS	2024-05-26	WP2413300	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.1	10.2	19.4	<0.000010	<0.000010		4.21
SW-14-B	ALS	2024-08-12	WP2419654	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000063	9.76	9.9	23.1	<0.000010	<0.000010		4.96
SW-14-B	ALS	2024-10-09	WP2424079	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.96	9.95	22.9	<0.000010	<0.000010		5.03
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015													
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014													
SW-15	SGS	2022-04-26	CA15019-MAY22	< 0.00001	< 0.00001	0.006	0.007	< 0.000003	< 0.000003	7.63	7.88	14			34	< 1
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004													
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003													
SW-15	Flett	2022-06-05	MTWATR061722JS2-003													
SW-15	SGS	2022-06-05	CA15234-JUN22	< 0.00001	< 0.00001	0.005	0.006	< 0.000003	0.000006	5.75	6.43	21			67	1
SW-15	SGS	2022-07-26	CA15458-JUL22	< 0.00001	< 0.00001	0.007	0.008	0.000014	0.000013	12.4	11.8	27			62	2
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012													
SW-15	Flett	2022-08-09	MTWATR092022JS1-011													
SW-15	SGS	2022-08-09	CA15226-AUG22	< 0.00001	< 0.00001	0.006	0.007	0.000009	0.000014	11.8	11.8	24			63	< 1
SW-15	SGS	2022-09-14	CA15266-SEP22	< 0.00001	< 0.00001	0.007	0.014	0.000005	< 0.000003	12.2	11.8	25			56	< 1
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007													
SW-15	Flett	2022-10-18	MTWATR110722JS1-007													
SW-15	SGS	2022-11-07	CA15216-NOV22	< 0.00001	< 0.00001	0.004	0.003	0.000004	0.000006	13.5	12.8	17			47	< 1
SW-15	SGS	2023-01-18	CA13675-JAN23	< 0.00001	0.00001	0.007	0.008	0.000006	0.000004	21.4	22.6	21			55	1
SW-15	SGS	2023-02-13	CA15347-FEB23	< 0.00001	< 0.00001	0.005	0.007	0.000015	0.000012	19.2	20.4	19			58	2
SW-15	SGS	2023-03-21	CA15408-MAR23	< 0.00001	< 0.00001	0.005	0.007	0.000004	0.000004	23	24.6	19			44	2
SW-15	SGS	2023-04-19	CA15419-APR23	< 0.00001	< 0.00001	0.006	0.005	0.000009	0.000012	13.1	12.2	22			67	2
SW-15	ALS	2023-05-21	WP2309398	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000101	11.8	12.1	24.7	<0.000010	0.000037		0.55
SW-15	ALS	2023-05-21	WP2309398-001													
SW-15	ALS	2023-07-16	WP2316171	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	23.4	25.7	22.7	<0.000010	0.00002		0.41
SW-15	ALS	2023-07-16	WP2316171-001													
SW-15	ALS	2023-08-11	WP2319515-004	<0.000050	<0.000050	0.01	<0.010	<0.0000050	0.0000056	24.6	25.2	25.1	<0.000010	0.000021		0.71
SW-15	ALS	2023-10-14	WP2326559-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000061	17.5	19.9	38.5	<0.000010	0.000087		1.07
SW-15	ALS	2024-02-05	WP2402956	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000054	19	22.2	18.4	<0.000010	0.000021		0.89
SW-15	ALS	2024-02-05	WP2402956	<0.000050	<0.000050	<0.010	0.01	<0.0000050	<0.0000050	18.4	21.6	17.9	<0.000010	0.000024		0.79
SW-15	ALS	2024-02-05	WP2402956-001													
SW-15	ALS	2024-02-05	WP2402956-005													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009													
SW-14	ALS	2023-10-13	WP2326557-003	0.00013	0.00022	<0.00010	<0.00010	96.6	0.00034	<0.00050	<0.0010	<0.0010		<0.0010		
SW-14	ALS	2024-02-07	WP2403186	<0.00050	<0.00050	<0.00010	<0.00010	130	0.00034	0.00055	<0.0010	<0.0010		<0.0010		
SW-14	Flett	2024-02-07	TMWATR022824CH1-008													
SW-14	Flett	2024-02-07	MTWATR030824JS1-007													
SW-14	ALS	2024-02-07	WP2403186-004	0.00013	0.00024											
SW-14	ALS	2024-05-26	WP2413300	0.00015	0.00028	<0.00010	<0.00010	83.2	0.00047	0.00052	<0.0010	<0.0010		<0.0010		
SW-14	Flett	2024-05-26	TMWATR061924CH1-007													
SW-14	Flett	2024-05-26	MTWATR061024JS1-007													
SW-14	ALS	2024-08-12	WP2419654	<0.00050	<0.00050	<0.00010	<0.00010	91	0.00039	<0.00050	<0.0010	<0.0010		<0.0010		
SW-14	Flett	2024-08-12	TMWATR091224CH1-007													
SW-14	Flett	2024-08-12	MTWATR091824JS1-003													
SW-14	ALS	2024-10-09	WP2424079	0.00015	0.00021	<0.00010	<0.00010	94	0.00046	0.00055	0.0012	<0.0010		<0.0010		
SW-14	Flett	2024-10-09	MTWATR112624JS1-001													
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001													
SW-14-B	ALS	2023-05-30	WP2310312-004	0.0002	<0.00010	<0.00010	0.00031	85.6	0.00048	0.00254	0.0014	0.0015		0.0016		
SW-14-B	ALS	2023-08-13	WP2319515-002	0.00018	0.00026	<0.00010	<0.00010	105	0.00045	0.00055	<0.0010	<0.0010		<0.0010		
SW-14-B	ALS	2023-10-13	WP2326557-004	0.0014	0.00018	<0.00010	<0.00010	97.3	0.00033	<0.00050	<0.0010	<0.0010		<0.0010		
SW-14-B	ALS	2024-02-07	WP2403186	<0.00050	<0.00050	<0.00010	<0.00010	136	0.00049	<0.00050	<0.0010	<0.0010		<0.0010		
SW-14-B	ALS	2024-02-07	WP2403186-005	0.00019	0.00023											
SW-14-B	ALS	2024-05-26	WP2413300	0.00015	0.00034	<0.00010	<0.00010	83.4	0.00046	0.00052	<0.0010	<0.0010		<0.0010		
SW-14-B	ALS	2024-08-12	WP2419654	<0.00050	<0.00050	<0.00010	<0.00010	91.2	0.0006	<0.00050	0.0011	<0.0010		<0.0010		
SW-14-B	ALS	2024-10-09	WP2424079	0.00018	0.00025	<0.00010	<0.00010	93.7	0.00068	0.00057	<0.0010	<0.0010		<0.0010		
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015													
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014													
SW-15	SGS	2022-04-26	CA15019-MAY22	0.00022	0.00148	0.000037	0.000438	58	0.0008	0.0021						< 0.06
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004													
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003													
SW-15	Flett	2022-06-05	MTWATR061722JS2-003													
SW-15	SGS	2022-06-05	CA15234-JUN22	0.00088	0.00091	0.000083	0.000112	43	0.0016	0.0013			< 0.01			< 0.06
SW-15	SGS	2022-07-26	CA15458-JUL22	0.00133	0.00191	0.000484	0.000544	83	0.0016	0.0019			< 0.01			0.07
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012													
SW-15	Flett	2022-08-09	MTWATR092022JS1-011													
SW-15	SGS	2022-08-09	CA15226-AUG22	0.00102	0.00147	0.000404	0.000484	72	0.0012	0.0015			< 0.01			< 0.06
SW-15	SGS	2022-09-14	CA15266-SEP22	0.00063	0.00071	0.000146	0.000158	79	0.0009	0.001			< 0.01			< 0.06
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007													
SW-15	Flett	2022-10-18	MTWATR110722JS1-007													
SW-15	SGS	2022-11-07	CA15216-NOV22	0.00044	0.00043	0.000102	0.000107	96	0.0009	0.0009	< 0.005		< 0.01	< 0.01		< 0.06
SW-15	SGS	2023-01-18	CA13675-JAN23	0.001	0.00111	0.000162	0.000235	122	0.001	0.0012	< 0.005		< 0.01	< 0.01		0.13
SW-15	SGS	2023-02-13	CA15347-FEB23	0.00039	0.0011	0.000077	0.00026	138	0.0009	0.0011	< 0.005		< 0.01			0.09
SW-15	SGS	2023-03-21	CA15408-MAR23	< 0.00008	0.00076	0.000064	0.000263	160	0.0009	0.0011	< 0.005		< 0.01			0.1
SW-15	SGS	2023-04-19	CA15419-APR23	0.00037	0.00126	0.00007	0.000349	83	0.0012	0.0016	< 0.005		< 0.01			< 0.06
SW-15	ALS	2023-05-21	WP2309398	0.00037	0.00094	<0.00010	0.00025	86.8	0.00091	0.00125	<0.0010	<0.0010		<0.0010		
SW-15	ALS	2023-05-21	WP2309398-001													
SW-15	ALS	2023-07-16	WP2316171	0.0003	0.00061	<0.00010	0.00017	163	0.00089	0.00109	0.0012	0.0016		0.0018		
SW-15	ALS	2023-07-16	WP2316171-001													
SW-15	ALS	2023-08-11	WP2319515-004	0.00033	0.00069	<0.00010	0.00016	184	0.00101	0.0012	<0.0010	<0.0010		<0.0010		
SW-15	ALS	2023-10-14	WP2326559-005	0.00065	0.00171	0.00018	0.0004	127	0.00093	0.00148	0.0012	0.0015		0.0012		
SW-15	ALS	2024-02-05	WP2402956	0.00023	0.00052	0.00013	0.00021	152	0.00074	0.00117	<0.0010	0.0053		<0.0010		
SW-15	ALS	2024-02-05	WP2402956	0.00031	0.00054	0.00014	0.00021	150	0.00078	0.00093	<0.0010	<0.0010		<0.0010		
SW-15	ALS	2024-02-05	WP2402956-001													
SW-15	ALS	2024-02-05	WP2402956-005													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009												
SW-14	ALS	2023-10-13	WP2326557-003	50.4	43.1	0.031	0.105	<0.000050	0.000087	0.0021	<0.0010	4.11	3.55	0.00037	0.0273
SW-14	ALS	2024-02-07	WP2403186	41.9	58.8	0.046	0.123	0.000062	0.000065	0.0013	0.0024	3.38	4.77	0.0416	0.0752
SW-14	Flett	2024-02-07	TMWATR022824CH1-008												
SW-14	Flett	2024-02-07	MTWATR030824JS1-007												
SW-14	ALS	2024-02-07	WP2403186-004												
SW-14	ALS	2024-05-26	WP2413300	36.6	37.9	0.054	0.13	<0.000050	0.000104	0.0013	0.0024	3.03	3.07	0.00054	0.011
SW-14	Flett	2024-05-26	TMWATR061924CH1-007												
SW-14	Flett	2024-05-26	MTWATR061024JS1-007												
SW-14	ALS	2024-08-12	WP2419654	39	40.2	0.047	0.091	<0.000050	<0.000050	0.0013	0.0013	3.55	3.74	0.00059	0.0184
SW-14	Flett	2024-08-12	TMWATR091224CH1-007												
SW-14	Flett	2024-08-12	MTWATR091824JS1-003												
SW-14	ALS	2024-10-09	WP2424079	41	40.4	0.051	0.126	<0.000050	0.000078	0.0021	0.001	3.95	3.98	0.00069	0.0182
SW-14	Flett	2024-10-09	MTWATR112624JS1-001												
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001												
SW-14-B	ALS	2023-05-30	WP2310312-004	37.1	269	0.319	0.079	0.000119	0.000299	0.0014	0.0236	3.29	22.3	0.0074	0.442
SW-14-B	ALS	2023-08-13	WP2319515-002	48.1	50.2	0.04	0.156	<0.000050	0.000099	0.002	0.002	3.99	4.32	0.00074	0.0513
SW-14-B	ALS	2023-10-13	WP2326557-004	49.2	44.3	0.036	0.11	<0.000050	0.000092	0.0029	<0.0010	4.01	3.67	0.0003	0.03
SW-14-B	ALS	2024-02-07	WP2403186	61.8	63.5	0.056	0.077	<0.000050	<0.000050	0.0024	0.0027	5.13	5.06	0.0379	0.04
SW-14-B	ALS	2024-02-07	WP2403186-005												
SW-14-B	ALS	2024-05-26	WP2413300	38.6	38.1	0.072	0.138	<0.000050	0.000112	0.0013	0.0024	3.24	3.06	0.0125	0.0123
SW-14-B	ALS	2024-08-12	WP2419654	38.7	40	0.051	0.094	<0.000050	<0.000050	0.0013	0.0012	3.49	3.71	0.00053	0.0185
SW-14-B	ALS	2024-10-09	WP2424079	40.6	41.7	0.048	0.135	<0.000050	0.000088	0.0023	0.001	3.81	4.1	0.00044	0.0182
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015												
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014												
SW-15	SGS	2022-04-26	CA15019-MAY22	26.6	28.4	0.114	0.911	< 0.00009	0.00038	0.0008	0.0015	1.84	2.13	0.00373	0.0311
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004												
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003												
SW-15	Flett	2022-06-05	MTWATR061722JS2-003												
SW-15	SGS	2022-06-05	CA15234-JUN22	22.2	24.9	1.04	0.375	0.00025	0.00016	0.001	0.0012	1.91	2.16	0.00917	0.0111
SW-15	SGS	2022-07-26	CA15458-JUL22	47.4	45.9	1.03	1.49	0.00031	0.0004	0.0028	0.0031	3.97	3.98	0.0819	0.0813
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012												
SW-15	Flett	2022-08-09	MTWATR092022JS1-011												
SW-15	SGS	2022-08-09	CA15226-AUG22	45	44.8	0.829	1.04	0.00035	0.00048			3.76	3.72	0.0494	0.051
SW-15	SGS	2022-09-14	CA15266-SEP22	44.5	43.1	0.496	0.543	0.00013	0.00016			3.41	3.33	0.0282	0.0284
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007												
SW-15	Flett	2022-10-18	MTWATR110722JS1-007												
SW-15	SGS	2022-11-07	CA15216-NOV22	47.3	44.9	0.355	0.269	0.00013	0.0001			3.29	3.17	0.0183	0.0167
SW-15	SGS	2023-01-18	CA13675-JAN23	76.1	80.2	0.436	0.79	0.00015	0.00028			5.52	5.81	0.0318	0.0418
SW-15	SGS	2023-02-13	CA15347-FEB23	68.2	74.1	0.454	0.968	0.0001	0.0002			4.94	5.61	0.0121	0.109
SW-15	SGS	2023-03-21	CA15408-MAR23	81.9	88.6	0.514	1.1	< 0.00009	0.0002			5.95	6.59	0.0224	0.0918
SW-15	SGS	2023-04-19	CA15419-APR23	48.1	45.8	0.425	1.06	0.00013	0.00027			3.74	3.69	0.00326	0.0566
SW-15	ALS	2023-05-21	WP2309398	43.5	46.1	0.307	0.722	0.000073	0.000187	0.0017	0.0025	3.41	3.86	0.0176	0.0266
SW-15	ALS	2023-05-21	WP2309398-001												
SW-15	ALS	2023-07-16	WP2316171	87.1	91	0.294	0.518	0.000069	0.000131	0.0037	0.005	6.96	6.51	0.00374	0.048
SW-15	ALS	2023-07-16	WP2316171-001												
SW-15	ALS	2023-08-11	WP2319515-004	95.2	96.2	0.259	0.481	0.000073	0.000127	0.0044	0.005	8.2	8.08	0.0414	0.0681
SW-15	ALS	2023-10-14	WP2326559-005	68.6	74.4	0.531	1.28	0.000102	0.000358	<0.0010	0.0032	6.06	6	0.0351	0.0424
SW-15	ALS	2024-02-05	WP2402956	72.6	80.9	0.279	0.571	0.000056	0.000137	0.0028	0.0042	6.11	6.19	0.0441	0.0505
SW-15	ALS	2024-02-05	WP2402956	71	80.1	0.296	0.587	0.000059	0.000132	0.0025	0.0042	6.09	6.36	0.0444	0.0518
SW-15	ALS	2024-02-05	WP2402956-001												
SW-15	ALS	2024-02-05	WP2402956-005												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009		0.016										
SW-14	ALS	2023-10-13	WP2326557-003	<0.0000050		<0.0000050		0.000206	0.000189	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-14	ALS	2024-02-07	WP2403186	<0.0000050		<0.0000050		0.000138	0.000177	<0.00050	0.00054	0.0663	0.0663	<0.0010	
SW-14	Flett	2024-02-07	TMWATR022824CH1-008				1.19								
SW-14	Flett	2024-02-07	MTWATR030824JS1-007		0.031										
SW-14	ALS	2024-02-07	WP2403186-004												
SW-14	ALS	2024-05-26	WP2413300	<0.0000050		<0.0000050		0.000147	0.000146	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-14	Flett	2024-05-26	TMWATR061924CH1-007				2.55								
SW-14	Flett	2024-05-26	MTWATR061024JS1-007		0.042										
SW-14	ALS	2024-08-12	WP2419654	<0.0000050		<0.0000050		0.000173	0.000154	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-14	Flett	2024-08-12	TMWATR091224CH1-007				1.88								
SW-14	Flett	2024-08-12	MTWATR091824JS1-003		0.029										
SW-14	ALS	2024-10-09	WP2424079	<0.0000050		<0.0000050		0.000164	0.000137	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-14	Flett	2024-10-09	MTWATR112624JS1-001		0.029										
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001				2.03								
SW-14-B	ALS	2023-05-30	WP2310312-004	<0.0000050		<0.0000050		0.000153	0.00348	<0.00050	0.00056	0.0136	0.0136	<0.0010	
SW-14-B	ALS	2023-08-13	WP2319515-002	<0.0000050		<0.0000050		0.00019	0.000221	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-14-B	ALS	2023-10-13	WP2326557-004	<0.0000050		<0.0000050		0.00019	0.000197	0.00058	<0.00050	<0.0050	<0.0051	<0.0010	
SW-14-B	ALS	2024-02-07	WP2403186	<0.0000050		<0.0000050		0.000195	0.000179	<0.00050	0.00053	0.0215	0.0215	<0.0010	
SW-14-B	ALS	2024-02-07	WP2403186-005												
SW-14-B	ALS	2024-05-26	WP2413300	<0.0000050		<0.0000050		0.000154	0.000149	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-14-B	ALS	2024-08-12	WP2419654	<0.0000050		<0.0000050		0.000177	0.000165	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-14-B	ALS	2024-10-09	WP2424079	<0.0000050		<0.0000050		0.000147	0.000154	<0.00050	0.00051	<0.0050	<0.0051	<0.0010	<0.030
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015				2.09								
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014		0.027										
SW-15	SGS	2022-04-26	CA15019-MAY22	< 0.00001				0.00016	0.00018	0.0003	0.0013	0.28	0.28	< 0.03	
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004				8.18								
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003				8.29								
SW-15	Flett	2022-06-05	MTWATR061722JS2-003		0.309										
SW-15	SGS	2022-06-05	CA15234-JUN22	< 0.00001		< 0.00001		0.00024	0.00018	0.0038	0.001	< 0.06	< 0.06	< 0.03	
SW-15	SGS	2022-07-26	CA15458-JUL22	< 0.00001		< 0.00001		0.00026	0.00034	0.0012	0.0017	< 0.06	< 0.06	< 0.03	
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012				3.35								
SW-15	Flett	2022-08-09	MTWATR092022JS1-011		0.301										
SW-15	SGS	2022-08-09	CA15226-AUG22			< 0.00001		0.00029	0.00043	0.0014	0.0017	< 0.06	< 0.06	< 0.03	
SW-15	SGS	2022-09-14	CA15266-SEP22			< 0.00001		0.00025	0.00027	0.0008	0.0008	0.11	0.11	< 0.03	
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007				2								
SW-15	Flett	2022-10-18	MTWATR110722JS1-007		0.305										
SW-15	SGS	2022-11-07	CA15216-NOV22	< 0.00001		< 0.00001		0.00046	0.0004	0.001	0.0009	< 0.06	< 0.06	< 0.03	
SW-15	SGS	2023-01-18	CA13675-JAN23	< 0.00001		< 0.00001		0.00059	0.00055	0.0008	0.0009	0.14	0.14	< 0.03	
SW-15	SGS	2023-02-13	CA15347-FEB23	0.00002		0.00002		0.00043	0.00048	0.0007	0.0009	0.15	0.15	< 0.03	
SW-15	SGS	2023-03-21	CA15408-MAR23	< 0.00001		< 0.00001		0.00059	0.00062	0.0007	0.0009	0.18	0.18	< 0.03	
SW-15	SGS	2023-04-19	CA15419-APR23	< 0.00001		< 0.00001		0.0004	0.00037	0.0008	0.0012	0.36	0.36	< 0.03	
SW-15	ALS	2023-05-21	WP2309398	<0.0000050		<0.0000050		0.000343	0.000359	0.00069	0.0011	0.0467	0.0467	<0.0010	
SW-15	ALS	2023-05-21	WP2309398-001												
SW-15	ALS	2023-07-16	WP2316171	<0.0000050		<0.0000050		0.000904	0.000968	0.00081	0.00096	0.0126	0.0139	0.0013	
SW-15	ALS	2023-07-16	WP2316171-001												
SW-15	ALS	2023-08-11	WP2319515-004	<0.0000050		<0.0000050		0.000751	0.000832	0.00089	0.00108	<0.0050	<0.0051	<0.0010	
SW-15	ALS	2023-10-14	WP2326559-005	<0.0000050		0.0000056		0.000583	0.000594	0.00119	0.00177	0.0184	0.0184	<0.0010	
SW-15	ALS	2024-02-05	WP2402956	<0.0000050		<0.0000050		0.000419	0.000453	0.00056	0.00097	0.0723	0.0723	<0.0010	
SW-15	ALS	2024-02-05	WP2402956	<0.0000050		<0.0000050		0.000441	0.000456	0.00067	0.00087	0.0739	0.075	0.0011	
SW-15	ALS	2024-02-05	WP2402956-001												
SW-15	ALS	2024-02-05	WP2402956-005												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009												
SW-14	ALS	2023-10-13	WP2326557-003	<0.030		0.0268	0.034	1.54	1.33		0.00144	0.00145	0.000114	0.000108	0.449
SW-14	ALS	2024-02-07	WP2403186	<0.050	<0.030	0.0178	<0.050	1.02	1.46		0.00119	0.00164	0.000104	0.000115	0.402
SW-14	Flett	2024-02-07	TMWATR022824CH1-008												
SW-14	Flett	2024-02-07	MTWATR030824JS1-007												
SW-14	ALS	2024-02-07	WP2403186-004	<0.030			<0.03								
SW-14	ALS	2024-05-26	WP2413300	<0.030	<0.030	0.0328	<0.050	0.926	1		0.00104	0.00109	0.000082	0.000112	0.307
SW-14	Flett	2024-05-26	TMWATR061924CH1-007												
SW-14	Flett	2024-05-26	MTWATR061024JS1-007												
SW-14	ALS	2024-08-12	WP2419654	<0.050	<0.030	0.0202	<0.050	0.963	1		0.00119	0.00133	0.000089	0.000103	0.444
SW-14	Flett	2024-08-12	TMWATR091224CH1-007												
SW-14	Flett	2024-08-12	MTWATR091824JS1-003												
SW-14	ALS	2024-10-09	WP2424079		<0.030	0.0208		1.01	1.01		0.00117	0.0012	0.00016	0.000176	0.606
SW-14	Flett	2024-10-09	MTWATR112624JS1-001												
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001												
SW-14-B	ALS	2023-05-30	WP2310312-004	<0.030		0.0183	0.039	1.22	2.66		0.00148	0.00134	0.000085	0.000074	0.457
SW-14-B	ALS	2023-08-13	WP2319515-002	<0.030		0.0322	<0.030	1.38	1.46		0.00169	0.00169	0.000084	0.000124	0.823
SW-14-B	ALS	2023-10-13	WP2326557-004	<0.030		0.0296	0.04	1.5	1.41		0.00153	0.0015	0.000107	0.00007	0.468
SW-14-B	ALS	2024-02-07	WP2403186	<0.050	<0.030	0.0082	<0.050	1.52	1.57		0.00163	0.00175	0.000146	0.000096	0.572
SW-14-B	ALS	2024-02-07	WP2403186-005	<0.030			<0.03								
SW-14-B	ALS	2024-05-26	WP2413300	<0.030	0.032	0.0288	<0.050	0.965	0.998		0.00104	0.00111	0.000074	0.000068	0.225
SW-14-B	ALS	2024-08-12	WP2419654	<0.050	<0.030	0.0188	<0.050	0.949	1		0.00126	0.00137	0.000076	0.000142	0.454
SW-14-B	ALS	2024-10-09	WP2424079		<0.030	0.0232		1	1.03		0.00108	0.00126	0.000082	0.000076	0.614
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015												
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014												
SW-15	SGS	2022-04-26	CA15019-MAY22	0.011			0.014	0.827	1.02				< 0.00004	< 0.00004	1.65
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004												
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003												
SW-15	Flett	2022-06-05	MTWATR061722JS2-003												
SW-15	SGS	2022-06-05	CA15234-JUN22	0.013			0.032	1.22	1.45				0.00006	0.00015	1.53
SW-15	SGS	2022-07-26	CA15458-JUL22	0.123			0.102	1.49	1.5				0.00012	0.00014	3.16
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012												
SW-15	Flett	2022-08-09	MTWATR092022JS1-011												
SW-15	SGS	2022-08-09	CA15226-AUG22	< 0.003			0.033	1.08	1.13				0.00014	0.00013	
SW-15	SGS	2022-09-14	CA15266-SEP22	0.024			0.031	1.07	1.05				0.00016	0.0001	1.61
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007												
SW-15	Flett	2022-10-18	MTWATR110722JS1-007												
SW-15	SGS	2022-11-07	CA15216-NOV22	0.016			0.014	1.12	1.05	---			0.00038	0.00022	1.74
SW-15	SGS	2023-01-18	CA13675-JAN23	0.049			0.041	1.74	1.89				0.00025	0.00016	3.4
SW-15	SGS	2023-02-13	CA15347-FEB23	0.019			0.028	1.47	1.63				0.00015	< 0.00004	3.16
SW-15	SGS	2023-03-21	CA15408-MAR23	0.017			0.032	1.77	1.96				0.00009	0.00009	3.79
SW-15	SGS	2023-04-19	CA15419-APR23	0.018			0.052	1.98	1.92				0.00008	0.0001	3.76
SW-15	ALS	2023-05-21	WP2309398	<0.030	<0.030	0.0325	<0.050	1.13	1.29		0.00136	0.00209	0.00012	0.000127	2.23
SW-15	ALS	2023-05-21	WP2309398-001				<0.030								
SW-15	ALS	2023-07-16	WP2316171	<0.030	0.034	0.0287	<0.050	1.45	1.53		0.00164	0.002	0.000113	0.00013	2.31
SW-15	ALS	2023-07-16	WP2316171-001				0.034								
SW-15	ALS	2023-08-11	WP2319515-004	<0.030		0.0391	<0.030	1.35	1.44		0.00154	0.00201	0.000118	0.000115	3.2
SW-15	ALS	2023-10-14	WP2326559-005	<0.030		0.0362	<0.030	1.79	1.76		0.0017	0.00317	0.000137	0.000134	4.99
SW-15	ALS	2024-02-05	WP2402956	<0.030	0.033	0.0213	<0.050	1.55	1.75		0.00183	0.00235	0.000115	0.000122	3.81
SW-15	ALS	2024-02-05	WP2402956	<0.030	0.03	0.0204	<0.050	1.54	1.76		0.00185	0.00222	0.000122	0.000108	3.9
SW-15	ALS	2024-02-05	WP2402956-001				0.03								
SW-15	ALS	2024-02-05	WP2402956-005				0.033								

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Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009													
SW-14	ALS	2023-10-13	WP2326557-003	0.46	<0.000010	<0.000010	4.06	3.43	82.3	4.8	0.0347	0.0316	0.52	<0.50	0.43	<0.00020
SW-14	ALS	2024-02-07	WP2403186	0.72	<0.000010	<0.000010	3.5	5.67	112	2.3	0.0259	0.0371	<0.50	<0.50	0.46	<0.00020
SW-14	Flett	2024-02-07	TMWATR022824CH1-008													
SW-14	Flett	2024-02-07	MTWATR030824JS1-007													
SW-14	ALS	2024-02-07	WP2403186-004													
SW-14	ALS	2024-05-26	WP2413300	0.46	<0.000010	<0.000010	3.23	3.26	77.7	5.3	0.0251	0.0246	<0.50	<0.50	0.59	<0.00020
SW-14	Flett	2024-05-26	TMWATR061924CH1-007													
SW-14	Flett	2024-05-26	MTWATR061024JS1-007													
SW-14	ALS	2024-08-12	WP2419654	0.5	0.000015	<0.000010	3.75	4.06	93.6	2.2	0.0265	0.027	<0.50	<0.50	0.64	<0.00020
SW-14	Flett	2024-08-12	TMWATR091224CH1-007													
SW-14	Flett	2024-08-12	MTWATR091824JS1-003													
SW-14	ALS	2024-10-09	WP2424079	0.68	<0.000010	<0.000010	4.35	4.32	96.9	4.7	0.0259	0.0251	<0.50	<0.50	0.62	<0.00020
SW-14	Flett	2024-10-09	MTWATR112624JS1-001													
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001													
SW-14-B	ALS	2023-05-30	WP2310312-004	11.9	<0.000010	<0.000010	3.16	5.6	79.9	1.1	0.0228	0.338	1.09	10	0.47	<0.00020
SW-14-B	ALS	2023-08-13	WP2319515-002	0.95	<0.000010	<0.000010	3.9	3.88	75	5.3	0.032	0.0369	<0.50	0.58	0.36	<0.00020
SW-14-B	ALS	2023-10-13	WP2326557-004	0.49	<0.000010	<0.000010	3.93	3.52	79	5.8	0.0363	0.0314	0.55	<0.50	0.43	<0.00020
SW-14-B	ALS	2024-02-07	WP2403186	0.66	<0.000010	<0.000010	4.86	4.84	114	<1.0	0.0388	0.0401	<0.50	0.63	0.47	<0.00020
SW-14-B	ALS	2024-02-07	WP2403186-005													
SW-14-B	ALS	2024-05-26	WP2413300	0.49	<0.000010	<0.000010	3.3	3.24	85.4	14.8	0.0246	0.0246	<0.50	<0.50	0.57	<0.00020
SW-14-B	ALS	2024-08-12	WP2419654	0.54	<0.000010	<0.000010	3.7	4.06	87.2	2.2	0.0256	0.0272	<0.50	<0.50	0.64	<0.00020
SW-14-B	ALS	2024-10-09	WP2424079	0.7	<0.000010	<0.000010	4.38	4.64	97.9	4.8	0.0251	0.0265	0.5	<0.50	0.58	<0.00020
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015													
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014													
SW-15	SGS	2022-04-26	CA15019-MAY22	2.91	< 0.00005	< 0.00005	0.98	1.07	80	13	0.0162	0.0181	1	< 1	< 2	
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004													
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003													
SW-15	Flett	2022-06-05	MTWATR061722JS2-003													
SW-15	SGS	2022-06-05	CA15234-JUN22	2	< 0.00005	< 0.00005	0.94	1.08	51	5	0.0137	0.0158		< 1	< 2	
SW-15	SGS	2022-07-26	CA15458-JUL22	4.32	< 0.00005	< 0.00005	1.97	1.96	94	9	0.0305	0.03		2	< 20	
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012													
SW-15	Flett	2022-08-09	MTWATR092022JS1-011													
SW-15	SGS	2022-08-09	CA15226-AUG22		< 0.00005	< 0.00005	1.75	1.97	131	13	0.0271	0.0278			< 2	
SW-15	SGS	2022-09-14	CA15266-SEP22	1.57	< 0.00005	< 0.00005	1.65	1.67	74	5	0.0297	0.0285	< 1	1	< 2	
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007													
SW-15	Flett	2022-10-18	MTWATR110722JS1-007													
SW-15	SGS	2022-11-07	CA15216-NOV22	1.58	< 0.00005	< 0.00005	1.66	1.54	140	11	0.0362	0.0349	< 1	< 1	< 2	
SW-15	SGS	2023-01-18	CA13675-JAN23	3.89	< 0.00005	< 0.00005	2.48	2.6	134	5	0.0424	0.0441	1	< 1	< 2	
SW-15	SGS	2023-02-13	CA15347-FEB23	3.88	< 0.00005	< 0.00005	2.4	2.75	80	2	0.0384	0.0418	< 1	1	< 2	
SW-15	SGS	2023-03-21	CA15408-MAR23	4.63	< 0.00005	< 0.00005	2.58	2.77	117	5	0.0456	0.0487	< 1	1	< 2	
SW-15	SGS	2023-04-19	CA15419-APR23	4.59	< 0.00005	< 0.00005	1.71	1.69	80	13	0.026	0.0256	< 1	< 1	< 2	
SW-15	ALS	2023-05-21	WP2309398	2.95	<0.000010	<0.000010	1.69	1.92	79.4	8.4	0.0245	0.0252	0.52	0.62	1.08	<0.00020
SW-15	ALS	2023-05-21	WP2309398-001													
SW-15	ALS	2023-07-16	WP2316171	2.75	<0.000010	<0.000010	2.73	2.69	116	2.4	0.0469	0.0512	0.87	0.9	1.63	<0.00020
SW-15	ALS	2023-07-16	WP2316171-001													
SW-15	ALS	2023-08-11	WP2319515-004	3.93	<0.000010	<0.000010	3.24	3.41	140	4.6	0.0514	0.0604	1.04	1.29	1.68	<0.00020
SW-15	ALS	2023-10-14	WP2326559-005	6.44	<0.000010	<0.000010	2.81	2.68	131	11.8	0.0401	0.04	0.77	<0.50	1.22	<0.00020
SW-15	ALS	2024-02-05	WP2402956	4.64	<0.000010	<0.000010	2.66	2.8	99.3	4.6	0.0404	0.0443	<0.50	0.86	1.64	<0.00020
SW-15	ALS	2024-02-05	WP2402956	4.57	<0.000010	<0.000010	2.64	3.31	95.7	4.8	0.0398	0.0466	0.53	1.02	1.3	0.00027
SW-15	ALS	2024-02-05	WP2402956-001													
SW-15	ALS	2024-02-05	WP2402956-005													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009													
SW-14	ALS	2023-10-13	WP2326557-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0003	0.00116		<0.00010	<0.00010	0.000041
SW-14	ALS	2024-02-07	WP2403186	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00168		<0.00010	<0.00010	0.000031
SW-14	Flett	2024-02-07	TMWATR022824CH1-008													
SW-14	Flett	2024-02-07	MTWATR030824JS1-007													
SW-14	ALS	2024-02-07	WP2403186-004													
SW-14	ALS	2024-05-26	WP2413300	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00082	0.00288		<0.00010	<0.00010	0.000039
SW-14	Flett	2024-05-26	TMWATR061924CH1-007													
SW-14	Flett	2024-05-26	MTWATR061024JS1-007													
SW-14	ALS	2024-08-12	WP2419654	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00054		<0.00010	<0.00010	0.000049
SW-14	Flett	2024-08-12	TMWATR091224CH1-007													
SW-14	Flett	2024-08-12	MTWATR091824JS1-003													
SW-14	ALS	2024-10-09	WP2424079	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00147		<0.00010	<0.00010	0.000054
SW-14	Flett	2024-10-09	MTWATR112624JS1-001													
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001													
SW-14-B	ALS	2023-05-30	WP2310312-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	0.00036	<0.00010	0.00088	<0.00030		<0.00010	<0.00010	0.000066
SW-14-B	ALS	2023-08-13	WP2319515-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00101		<0.00010	<0.00010	0.000057
SW-14-B	ALS	2023-10-13	WP2326557-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.0014		<0.00010	<0.00010	0.000042
SW-14-B	ALS	2024-02-07	WP2403186	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00031	0.00038		<0.00010	<0.00010	0.000045
SW-14-B	ALS	2024-02-07	WP2403186-005													
SW-14-B	ALS	2024-05-26	WP2413300	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00056	0.00275		<0.00010	<0.00010	0.000034
SW-14-B	ALS	2024-08-12	WP2419654	<0.00020	<0.000010	0.000031	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.0006		<0.00010	<0.00010	0.000043
SW-14-B	ALS	2024-10-09	WP2424079	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00158		<0.00010	<0.00010	0.000047
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015													
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014													
SW-15	SGS	2022-04-26	CA15019-MAY22		< 0.000005	0.000009			0.00008	0.00008	0.00358	0.0327	13	< 0.00002	0.00007	0.000083
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004													
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003													
SW-15	Flett	2022-06-05	MTWATR061722JS2-003													
SW-15	SGS	2022-06-05	CA15234-JUN22		< 0.000005	0.000005			< 0.00006	< 0.00006			23	0.00004	< 0.00002	0.000097
SW-15	SGS	2022-07-26	CA15458-JUL22		0.000012	0.000014			0.00008	0.00011			25	0.00012	0.00014	0.0002
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012													
SW-15	Flett	2022-08-09	MTWATR092022JS1-011													
SW-15	SGS	2022-08-09	CA15226-AUG22		0.000005	0.000005			< 0.00006	0.0002	0.0177	0.0243	24	0.00004	0.00005	0.000186
SW-15	SGS	2022-09-14	CA15266-SEP22		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00605	0.00676	25	0.00006	0.00006	0.000229
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007													
SW-15	Flett	2022-10-18	MTWATR110722JS1-007													
SW-15	SGS	2022-11-07	CA15216-NOV22		< 0.000005	0.000005			< 0.00006	< 0.00006	0.00297	0.00183	19	0.00004	0.00005	0.000317
SW-15	SGS	2023-01-18	CA13675-JAN23		0.000005	0.000008			0.00007	0.00008	0.00508	0.0125	20	0.00003	0.00005	0.000425
SW-15	SGS	2023-02-13	CA15347-FEB23		< 0.000005	< 0.000005			0.00006	0.00011	0.0023	0.0102	20	0.00002	0.00003	0.000325
SW-15	SGS	2023-03-21	CA15408-MAR23		< 0.000005	< 0.000005			< 0.00006	0.00012	0.00214	0.0129	18	< 0.00002	< 0.00002	0.000456
SW-15	SGS	2023-04-19	CA15419-APR23		< 0.000005	0.000009			0.0001	< 0.00006	0.00397	0.0241	28	0.00003	0.00002	0.000168
SW-15	ALS	2023-05-21	WP2309398	<0.00020	<0.000010	<0.000010	<0.00010	0.0001	<0.00010	<0.00010	0.00261	0.0174		<0.00010	<0.00010	0.000188
SW-15	ALS	2023-05-21	WP2309398-001													
SW-15	ALS	2023-07-16	WP2316171	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00205	0.00818		<0.00010	<0.00010	0.000317
SW-15	ALS	2023-07-16	WP2316171-001													
SW-15	ALS	2023-08-11	WP2319515-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00301	0.00964		<0.00010	<0.00010	0.000288
SW-15	ALS	2023-10-14	WP2326559-005	<0.00020	<0.000010	0.000011	0.00012	0.00016	<0.00010	<0.00010	0.00598	0.0361		<0.00010	<0.00010	0.000147
SW-15	ALS	2024-02-05	WP2402956	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00116	0.00907		<0.00010	<0.00010	0.000271
SW-15	ALS	2024-02-05	WP2402956	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00121	0.00983		<0.00010	<0.00010	0.00027
SW-15	ALS	2024-02-05	WP2402956-001													
SW-15	ALS	2024-02-05	WP2402956-005													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-14	Flett	2023-10-13	MTWATR111923JS1-009									
SW-14	ALS	2023-10-13	WP2326557-003	0.000049	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14	ALS	2024-02-07	WP2403186	0.000045	<0.00050	<0.00050			0.0048	<0.0030	<0.00030	<0.00020
SW-14	Flett	2024-02-07	TMWATR022824CH1-008									
SW-14	Flett	2024-02-07	MTWATR030824JS1-007									
SW-14	ALS	2024-02-07	WP2403186-004									
SW-14	ALS	2024-05-26	WP2413300	0.000039	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14	Flett	2024-05-26	TMWATR061924CH1-007									
SW-14	Flett	2024-05-26	MTWATR061024JS1-007									
SW-14	ALS	2024-08-12	WP2419654	0.000056	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14	Flett	2024-08-12	TMWATR091224CH1-007									
SW-14	Flett	2024-08-12	MTWATR091824JS1-003									
SW-14	ALS	2024-10-09	WP2424079	0.000053	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14	Flett	2024-10-09	MTWATR112624JS1-001									
SW-14	Flett	2024-10-09	TMWATR102224ZB2-001									
SW-14-B	ALS	2023-05-30	WP2310312-004	0.00368	<0.00050	<0.00050			<0.0010	0.0071	<0.00030	<0.00020
SW-14-B	ALS	2023-08-13	WP2319515-002	0.000058	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14-B	ALS	2023-10-13	WP2326557-004	0.00005	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14-B	ALS	2024-02-07	WP2403186	0.00005	<0.00050	<0.00050			0.0033	<0.0030	<0.00030	<0.00020
SW-14-B	ALS	2024-02-07	WP2403186-005									
SW-14-B	ALS	2024-05-26	WP2413300	0.00004	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14-B	ALS	2024-08-12	WP2419654	0.00005	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14-B	ALS	2024-10-09	WP2424079	0.00006	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-14-B	Flett	2024-10-09	TMWATR102824ZB1-015									
SW-14-B	Flett	2024-10-09	MTWATR112724JS1-014									
SW-15	SGS	2022-04-26	CA15019-MAY22	0.000111	0.00035	0.0018	0.00018	0.00029	< 0.002	0.004	< 0.002	< 0.002
SW-15	Flett	2022-06-05	TMWATR061322ZB1-004									
SW-15	Flett	2022-06-05	TMWATR061322ZB1-003									
SW-15	Flett	2022-06-05	MTWATR061722JS2-003									
SW-15	SGS	2022-06-05	CA15234-JUN22	0.000111	0.00055	0.00097	0.00026	0.00027	0.005	0.006	< 0.002	< 0.002
SW-15	SGS	2022-07-26	CA15458-JUL22	0.000346	0.00179	0.00264	0.00054	0.00058	0.003	0.003	< 0.002	< 0.002
SW-15	Flett	2022-08-09	TMWATR091622ZB1-012									
SW-15	Flett	2022-08-09	MTWATR092022JS1-011									
SW-15	SGS	2022-08-09	CA15226-AUG22	0.00021	0.00148	0.00182	0.00039	0.00039	0.002	0.003		
SW-15	SGS	2022-09-14	CA15266-SEP22	0.000227	0.00086	0.00093	0.00026	0.00027	< 0.002	< 0.002	< 0.002	< 0.002
SW-15	Flett	2022-10-18	TMWATR111022ZB3-007									
SW-15	Flett	2022-10-18	MTWATR110722JS1-007									
SW-15	SGS	2022-11-07	CA15216-NOV22	0.000315	0.00063	0.00051	0.00023	0.00022	< 0.002	< 0.002	< 0.002	< 0.002
SW-15	SGS	2023-01-18	CA13675-JAN23	0.000473	0.00073	0.00122	0.00024	0.00029	< 0.002	< 0.002	< 0.002	< 0.002
SW-15	SGS	2023-02-13	CA15347-FEB23	0.000352	0.00059	0.00115	0.00019	0.0003	0.016	0.026	< 0.002	< 0.002
SW-15	SGS	2023-03-21	CA15408-MAR23	0.000509	0.00054	0.00119	0.00019	0.0003	0.005	0.006	< 0.002	< 0.002
SW-15	SGS	2023-04-19	CA15419-APR23	0.000189	0.00059	0.0015	0.00029	0.00036	< 0.002	0.003	< 0.002	< 0.002
SW-15	ALS	2023-05-21	WP2309398	0.00021	0.00062	0.00137			0.0011	<0.0030	0.00039	0.0005
SW-15	ALS	2023-05-21	WP2309398-001									
SW-15	ALS	2023-07-16	WP2316171	0.000307	0.0008	0.00134			<0.0010	<0.0030	0.00043	0.00045
SW-15	ALS	2023-07-16	WP2316171-001									
SW-15	ALS	2023-08-11	WP2319515-004	0.000291	0.00082	0.00126			<0.0010	<0.0030	0.0005	0.00052
SW-15	ALS	2023-10-14	WP2326559-005	0.000153	0.00076	0.0022			0.0016	0.0032	0.00065	0.00084
SW-15	ALS	2024-02-05	WP2402956	0.000286	<0.00050	0.00094			0.0015	<0.0030	<0.00030	0.00025
SW-15	ALS	2024-02-05	WP2402956	0.000279	<0.00050	0.00098			0.0014	<0.0030	<0.00030	0.00027
SW-15	ALS	2024-02-05	WP2402956-001									
SW-15	ALS	2024-02-05	WP2402956-005									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-15	ALS	2024-05-21	WP2412814	7.23	7.4	13.7	<2.0	36.7	<1.0	<1.0	<1.0	36.7	0.0927	0.67
SW-15	ALS	2024-05-21	WP2412814	7.23	7.38	13.7	<2.0	36.1	<1.0	<1.0	<1.0	36.1	0.106	0.665
SW-15	ALS	2024-08-10	WP2419573	6.94	7.19	15.4	8.6	42.7	<1.0	<1.0	<1.0	42.7	0.166	0.613
SW-15	ALS	2024-10-02	WP2423347	6.98	7.51	10.3	4	44.4	<1.0	<1.0	<1.0	44.4	0.0924	0.328
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003											
SW-15	Flett	2024-10-02	MTWATR111324JS2-002											
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001											
SW-16	Flett	2022-09-06	MTWATR092022JS1-001											
SW-16	SGS	2022-09-06	CA13362-SEP22	6.78	6.85	17.9	< 2					29		0.204
SW-16	SGS	2022-10-07	CA15352-OCT22	6.2	7.03	6.6	< 2					28		0.143
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009											
SW-16	Flett	2022-10-17	MTWATR110722JS1-009											
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008											
SW-16	Flett	2022-10-17	MTWATR110722JS1-008											
SW-16	SGS	2023-02-28	CA12171-MAR23	6.23	7.06	2.16	< 2					30	0.152	0.154
SW-17	SGS	2022-08-09	CA15226-AUG22	4.51	5.86	19.5	10					5	0.956	0.974
SW-17	SGS	2022-09-14	CA15266-SEP22	5.42	6.11	10.9	20					5	0.479	0.48
SW-17	SGS	2022-10-07	CA15352-OCT22	4.83	6.39	3.7	9					7		0.459
SW-17	ALS	2023-05-21	WP2309398	5.5	5.83	11.6	7.8	4.5	<1.0	<1.0	<1.0	4.5	0.66	0.679
SW-17	ALS	2023-05-21	WP2309398-003											
SW-17	ALS	2024-02-11	WP2403349	7.59	5.6	0.6	6.6	2.5	<1.0	<1.0	<1.0	2.5	0.111	0.294
SW-17	ALS	2024-02-11	WP2403349-009											
SW-17	ALS	2024-05-23	WP2413138	5.07	5.76	8.08	8.1	5.2	<1.0	<1.0	<1.0	5.2	0.712	0.748
SW-17	ALS	2024-08-10	WP2419573	5.88	6.12	16.8	13.5	6.9	<1.0	<1.0	<1.0	6.9	0.45	0.586
SW-17	ALS	2024-09-07	WP2421728	5.58	6.15	9.34	10.4	6.9	<1.0	<1.0	<1.0	6.9	0.337	0.411
SW-17	Flett	2024-09-07	TMWATR092924CH1-007											
SW-17	Flett	2024-09-07	MTWATR100124JS1-008											
SW-17	ALS	2024-10-05	WP2423572	6.52	6.52	7	7.3	6.2	<1.0	<1.0	<1.0	6.2	0.298	0.34
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009											
SW-17	Flett	2024-10-05	MTWATR112624JS1-017											
SW-17	ALS	2024-11-03	WP2425500	7.45	6.38	3.43	4.6	6.6	<1.0	<1.0	<1.0	6.6	0.329	0.432
SW-17	Flett	2024-11-03	MTWATR120524JS1-010											
SW-17	Flett	2024-11-03	TMWATR112524CH1-011											
SW-17	ALS	2024-12-02	WP2426974	6.09	6.15	0	9.9	11.6	<1.0	<1.0	<1.0	11.6	0.437	0.302
SW-17	Flett	2024-12-02	TMWATR012125CH1-005											
SW-17	Flett	2024-12-02	MTWATR121924JS1-005											
SW-18	ALS	2023-05-21	WP2309398	6.58	6.98	11.5	2.7	37.1	<1.0	<1.0	<1.0	37.1	0.146	0.137
SW-18	ALS	2023-05-21	WP2309398	6.58	6.94	11.5	6.5	37.6	<1.0	<1.0	<1.0	37.6	0.143	0.152
SW-18	ALS	2023-05-21	WP2309398-006											
SW-18	ALS	2023-05-21	WP2309398-002											
SW-18	ALS	2024-05-23	WP2413138	5.08	5.75	5.96	12.4	6.3	<1.0	<1.0	<1.0	6.3	1.09	1.31
SW-18	ALS	2024-10-05	WP2423572	5.36	5.42	9.6	27.4	2.8	<1.0	<1.0	<1.0	2.8	1.25	1.28
SW-18	Flett	2024-10-05	MTWATR112624JS1-019											
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010											
SW-18	Flett	2024-10-05	MTWATR112624JS1-018											
SW-GL	SGS	2022-07-13	CA15242-JUL22	8.18	7.58	22.6	<2					28		0.013
SW-GL	SGS	2022-09-13	CA15263-SEP22	6.91	7.3	17.8	< 2					32	0.003	0.01
SW-GL	SGS	2022-10-18	CA15422-OCT22	7.8	7.75	5.93	< 2					30		0.016
SW-GL	SGS	2022-11-08	CA15232-NOV22	7.04	7.59	9.9	< 2					32		0.009
SW-GL	SGS	2023-02-07	CA15283-FEB23	2.12	7.58	6.71	< 2					32		0.005
SW-GL	SGS	2023-03-23	CA13921-MAR23	7.08	7.15	1.96	< 2					34	0.003	0.014
SW-GL	ALS	2023-05-25	WP2309710-001											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-15	ALS	2024-05-21	WP2412814			<0.0010	0.0137	<0.00010	<0.00010	0.0019	0.0022	0.00805	0.0133	<0.000020	0.000026
SW-15	ALS	2024-05-21	WP2412814			<0.0010	0.0086	<0.00010	<0.00010	0.00187	0.00217	0.00831	0.0136	<0.000020	0.000022
SW-15	ALS	2024-08-10	WP2419573			<0.0010	0.0419	0.00012	<0.00010	0.00298	0.00329	0.0117	0.0172	0.00003	0.000039
SW-15	ALS	2024-10-02	WP2423347			<0.0010	0.0171	<0.00010	<0.00010	0.00281	0.00313	0.0109	0.0134	<0.000020	0.000055
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003												
SW-15	Flett	2024-10-02	MTWATR111324JS2-002												
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001												
SW-16	Flett	2022-09-06	MTWATR092022JS1-001												
SW-16	SGS	2022-09-06	CA13362-SEP22	0.178			< 0.1	< 0.0009	< 0.0009	0.0084	0.0082	0.0196	0.0186	0.000013	0.000014
SW-16	SGS	2022-10-07	CA15352-OCT22	0.132			0.2	< 0.0009	< 0.0009	0.0047	0.005	0.0121	0.0133	0.000011	0.000008
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009												
SW-16	Flett	2022-10-17	MTWATR110722JS1-009												
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008												
SW-16	Flett	2022-10-17	MTWATR110722JS1-008												
SW-16	SGS	2023-02-28	CA12171-MAR23	0.138			< 0.1	< 0.0009	< 0.0009	0.0047	0.0051	0.0146	0.0157	0.00001	0.000011
SW-17	SGS	2022-08-09	CA15226-AUG22	0.755			< 0.1	< 0.0009	< 0.0009	0.0087	0.0082	0.0146	0.0134	0.000045	0.000041
SW-17	SGS	2022-09-14	CA15266-SEP22	0.297			0.1	< 0.0009	< 0.0009	0.0057	0.0055	0.0078	0.00782	0.000019	0.000023
SW-17	SGS	2022-10-07	CA15352-OCT22	0.325			< 0.1	< 0.0009	< 0.0009	0.0043	0.0057	0.00484	0.0059	0.000009	0.000026
SW-17	ALS	2023-05-21	WP2309398			<0.0010	<0.010	0.00022	0.00022	0.00337	0.00351	0.00947	0.00993	0.000035	0.000027
SW-17	ALS	2023-05-21	WP2309398-003		<0.010										
SW-17	ALS	2024-02-11	WP2403349			0.0019	0.567	0.00014	0.00017	0.00064	0.00092	0.206	0.249	<0.000020	<0.000020
SW-17	ALS	2024-02-11	WP2403349-009		0.567										
SW-17	ALS	2024-05-23	WP2413138			<0.0010	0.0107	0.00023	0.00023	0.00334	0.00324	0.00993	0.0103	0.000031	0.00002
SW-17	ALS	2024-08-10	WP2419573			<0.0010	0.0198	0.00014	0.00014	0.00398	0.00603	0.00815	0.0102	<0.000020	0.000023
SW-17	ALS	2024-09-07	WP2421728			<0.0010	0.0116	0.0001	0.00012	0.00327	0.00459	0.00598	0.00739	<0.000020	<0.000020
SW-17	Flett	2024-09-07	TMWATR092924CH1-007												
SW-17	Flett	2024-09-07	MTWATR100124JS1-008												
SW-17	ALS	2024-10-05	WP2423572			<0.0010	0.01	<0.00010	0.0001	0.00355	0.00384	0.00641	0.00632	<0.000020	0.000023
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009												
SW-17	Flett	2024-10-05	MTWATR112624JS1-017												
SW-17	ALS	2024-11-03	WP2425500			<0.0010	0.0107	0.00013	0.00011	0.00262	0.00368	0.00496	0.00781	<0.000020	<0.000020
SW-17	Flett	2024-11-03	MTWATR120524JS1-010												
SW-17	Flett	2024-11-03	TMWATR112524CH1-011												
SW-17	ALS	2024-12-02	WP2426974			<0.0010	0.0916	0.00014	<0.00010	0.00345	0.00232	0.00844	0.00597	0.000021	<0.000020
SW-17	Flett	2024-12-02	TMWATR012125CH1-005												
SW-17	Flett	2024-12-02	MTWATR121924JS1-005												
SW-18	ALS	2023-05-21	WP2309398			<0.0010	0.026	<0.00010	<0.00010	0.00214	0.00213	0.0158	0.0148	<0.000020	<0.000020
SW-18	ALS	2023-05-21	WP2309398			<0.0010	0.041	<0.00010	<0.00010	0.00227	0.00228	0.0152	0.0162	<0.000020	<0.000020
SW-18	ALS	2023-05-21	WP2309398-006		0.026										
SW-18	ALS	2023-05-21	WP2309398-002		0.041										
SW-18	ALS	2024-05-23	WP2413138			<0.0010	0.0136	0.0003	0.00034	0.0042	0.00467	0.0136	0.0135	0.000054	0.000051
SW-18	ALS	2024-10-05	WP2423572			<0.0010	0.0215	0.0002	0.00021	0.00481	0.00492	0.0102	0.00978	0.000058	0.000076
SW-18	Flett	2024-10-05	MTWATR112624JS1-019												
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010												
SW-18	Flett	2024-10-05	MTWATR112624JS1-018												
SW-GL	SGS	2022-07-13	CA15242-JUL22	0.009			<0.1	< 0.0009	< 0.0009	0.0015	0.0016	0.00681	0.00653	< 0.000007	< 0.000007
SW-GL	SGS	2022-09-13	CA15263-SEP22	0.003			< 0.1	< 0.0009	< 0.0009	0.0022	0.0025	0.00627	0.0071	< 0.000007	< 0.000007
SW-GL	SGS	2022-10-18	CA15422-OCT22	0.003			< 0.1	< 0.0009	< 0.0009	0.0024	0.004	0.00591	0.00712	0.00013	0.000105
SW-GL	SGS	2022-11-08	CA15232-NOV22	0.002			< 0.1	< 0.0009	< 0.0009	0.0016	0.002	0.00685	0.00695	< 0.000007	< 0.000007
SW-GL	SGS	2023-02-07	CA15283-FEB23	0.005			< 0.1	< 0.0009	< 0.0009	0.0016	0.0019	0.00671	0.00679	< 0.000007	< 0.000007
SW-GL	SGS	2023-03-23	CA13921-MAR23	0.004			< 0.1	< 0.0009	< 0.0009	0.0017	0.0017	0.00783	0.00856	< 0.000007	< 0.000007
SW-GL	ALS	2023-05-25	WP2309710-001		0.014										

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-15	ALS	2024-05-21	WP2412814	<0.000050	<0.000050	<0.010	<0.010	0.0000052	0.0000095	11.1	11.4	24.1	<0.000010	0.000066		0.58
SW-15	ALS	2024-05-21	WP2412814	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000064	10.7	11.5	23.2	<0.000010	0.000068		0.62
SW-15	ALS	2024-08-10	WP2419573	<0.000050	<0.000050	<0.010	<0.010	0.000005	0.0000205	13.8	15.1	32.1	<0.000010	0.000041		1.2
SW-15	ALS	2024-10-02	WP2423347	<0.000050	<0.000050	<0.010	0.018	0.0000084	0.0000063	13.9	15.1	33.8	<0.000010	0.000042		0.58
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003													
SW-15	Flett	2024-10-02	MTWATR111324JS2-002													
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001													
SW-16	Flett	2022-09-06	MTWATR092022JS1-001													
SW-16	SGS	2022-09-06	CA13362-SEP22	< 0.00001	< 0.00001	0.007	0.009	0.000007	0.000008	14.8	15.3	47			112	69
SW-16	SGS	2022-10-07	CA15352-OCT22	< 0.00001	0.00002	0.004	0.008	0.000006	0.000006	15.3	16.2	33			89	69
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009													
SW-16	Flett	2022-10-17	MTWATR110722JS1-009													
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008													
SW-16	Flett	2022-10-17	MTWATR110722JS1-008													
SW-16	SGS	2023-02-28	CA12171-MAR23	< 0.00001	< 0.00001	0.005	0.007	0.00001	0.000008	18.1	19.2	33			81	150
SW-17	SGS	2022-08-09	CA15226-AUG22	< 0.00001	< 0.00001	0.004	0.004	0.000041	0.000027	4.61	4.62	46			104	2
SW-17	SGS	2022-09-14	CA15266-SEP22	< 0.00001	< 0.00001	0.005	0.009	0.000004	0.000007	3.19	3.2	32			80	1
SW-17	SGS	2022-10-07	CA15352-OCT22	< 0.00001	< 0.00001	0.003	0.005	0.000012	0.000021	2.54	2.69	23			64	5
SW-17	ALS	2023-05-21	WP2309398	<0.000050	<0.000050	<0.010	<0.010	0.000009	0.0000106	3.56	3.67	37.8	<0.000010	<0.000010		<0.10
SW-17	ALS	2023-05-21	WP2309398-003													
SW-17	ALS	2024-02-11	WP2403349	<0.000050	<0.000050	<0.010	<0.010	0.00022	0.000248	40.2	41.9	13.6	0.000226	0.000257		1420
SW-17	ALS	2024-02-11	WP2403349-009													
SW-17	ALS	2024-05-23	WP2413138	<0.000050	<0.000050	<0.010	<0.010	0.000008	0.0000092	3.65	3.64	41.3	0.000013	0.000016		25.2
SW-17	ALS	2024-08-10	WP2419573	<0.000050	<0.000050	<0.010	<0.010	0.0000125	0.0000144	3.35	3.78	35.4	0.000015	0.000015		<0.10
SW-17	ALS	2024-09-07	WP2421728	<0.000050	<0.000050	<0.010	<0.010	0.000006	0.0000081	3.15	3.24	29.1	0.00002	0.00002		0.14
SW-17	Flett	2024-09-07	TMWATR092924CH1-007													
SW-17	Flett	2024-09-07	MTWATR100124JS1-008													
SW-17	ALS	2024-10-05	WP2423572	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000052	2.79	3.08	29.6	0.000021	0.000024		0.35
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009													
SW-17	Flett	2024-10-05	MTWATR112624JS1-017													
SW-17	ALS	2024-11-03	WP2425500	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000084	2.67	2.78	28.3	0.000021	0.000035		0.28
SW-17	Flett	2024-11-03	MTWATR120524JS1-010													
SW-17	Flett	2024-11-03	TMWATR112524CH1-011													
SW-17	ALS	2024-12-02	WP2426974	<0.000050	<0.000050	<0.010	<0.010	0.0000135	0.0000092	4.22	2.66	35.4	0.000046	0.000032		2.42
SW-17	Flett	2024-12-02	TMWATR012125CH1-005													
SW-17	Flett	2024-12-02	MTWATR121924JS1-005													
SW-18	ALS	2023-05-21	WP2309398	<0.000050	<0.000050	<0.010	<0.010	0.0000056	0.000007	15	13.5	38.6	<0.000010	<0.000010		72.6
SW-18	ALS	2023-05-21	WP2309398	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000063	14.7	14.5	39.3	<0.000010	<0.000010		72.1
SW-18	ALS	2023-05-21	WP2309398-006													
SW-18	ALS	2023-05-21	WP2309398-002													
SW-18	ALS	2024-05-23	WP2413138	<0.000050	<0.000050	<0.010	<0.010	0.0000161	0.0000173	5.1	4.23	52.4	<0.000010	<0.000010		3.84
SW-18	ALS	2024-10-05	WP2423572	<0.000050	<0.000050	<0.010	<0.010	0.0000181	0.0000204	3.39	3.6	45	0.000019	0.000026		0.36
SW-18	Flett	2024-10-05	MTWATR112624JS1-019													
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010													
SW-18	Flett	2024-10-05	MTWATR112624JS1-018													
SW-GL	SGS	2022-07-13	CA15242-JUL22	< 0.00001	< 0.00001	0.005	0.008	< 0.000003	< 0.000003	8.77	9.16	10			28	< 1
SW-GL	SGS	2022-09-13	CA15263-SEP22	< 0.00001	< 0.00001	0.01	0.006	< 0.000003	< 0.000003	8.75	8.76	10			17	< 1
SW-GL	SGS	2022-10-18	CA15422-OCT22	< 0.00001	< 0.00001	0.005	0.006	0.000179	0.000396	9.06	8.74	10			27	< 1
SW-GL	SGS	2022-11-08	CA15232-NOV22	< 0.00001	< 0.00001	0.006	0.008	< 0.000004	0.000007	7.44	8.07	9			< 8	< 1
SW-GL	SGS	2023-02-07	CA15283-FEB23	< 0.00001	< 0.00001	0.004	0.005	< 0.000004	< 0.000003	9.69	10.7	10			23	< 1
SW-GL	SGS	2023-03-23	CA13921-MAR23	< 0.00001	< 0.00001	0.005	0.005	< 0.000004	< 0.000003	10.7	10.4	10			80	1
SW-GL	ALS	2023-05-25	WP2309710-001													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-15	ALS	2024-05-21	WP2412814	0.00042	0.0014	0.00011	0.00028	79.8	0.00093	0.00144	<0.0010	<0.0010		<0.0010		
SW-15	ALS	2024-05-21	WP2412814	0.00037	0.00135	0.0001	0.00031	80.2	0.00097	0.00147	<0.0010	<0.0010		<0.0010		
SW-15	ALS	2024-08-10	WP2419573	0.00064	0.00144	0.00014	0.00035	97.4	0.00139	0.00183	0.0014	0.0012		0.001		
SW-15	ALS	2024-10-02	WP2423347	0.00043	0.0008	0.00011	0.00023	97.9	0.00071	0.00093	<0.0010	<0.0010		0.0013		
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003													
SW-15	Flett	2024-10-02	MTWATR111324JS2-002													
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001													
SW-16	Flett	2022-09-06	MTWATR092022JS1-001													
SW-16	SGS	2022-09-06	CA13362-SEP22	0.00091	0.00124	0.00079	0.00061	243	0.0004	0.0006			< 0.01			0.14
SW-16	SGS	2022-10-07	CA15352-OCT22	0.00098	0.00074	0.000307	0.000339	321	0.0003	0.0005	< 0.005		< 0.01			0.15
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009													
SW-16	Flett	2022-10-17	MTWATR110722JS1-009													
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008													
SW-16	Flett	2022-10-17	MTWATR110722JS1-008													
SW-16	SGS	2023-02-28	CA12171-MAR23	0.0006	0.00074	0.000395	0.00043	395	0.0002	0.0008	< 0.005		< 0.01	< 0.01		0.08
SW-17	SGS	2022-08-09	CA15226-AUG22	0.0024	0.00263	0.00193	0.0019	27	0.0008	0.0009			< 0.01			< 0.06
SW-17	SGS	2022-09-14	CA15266-SEP22	0.00166	0.00163	0.000423	0.000441	24	0.0006	0.0004			< 0.01			< 0.06
SW-17	SGS	2022-10-07	CA15352-OCT22	0.00154	0.00164	0.000377	0.000551	35	0.001	0.001	< 0.005		< 0.01			< 0.06
SW-17	ALS	2023-05-21	WP2309398	0.00125	0.00137	0.00028	0.00031	29.3	0.00153	0.00155	<0.0010	0.0011		0.0011		
SW-17	ALS	2023-05-21	WP2309398-003													
SW-17	ALS	2024-02-11	WP2403349	0.00023	0.00064	0.00277	0.00306	4190	0.00146	0.00206	<0.0010	0.007		0.0012		
SW-17	ALS	2024-02-11	WP2403349-009													
SW-17	ALS	2024-05-23	WP2413138	0.00123	0.00137	0.00022	0.00024	109	0.0013	0.00146	0.0013	0.0013		0.0012		
SW-17	ALS	2024-08-10	WP2419573	0.00163	0.00185	0.00048	0.00072	25.1	0.00062	0.00076	0.001	<0.0010		<0.0010		
SW-17	ALS	2024-09-07	WP2421728	0.0015	0.00162	0.00021	0.00028	25.9	0.00059	0.00052	<0.0010	0.001		<0.0010		
SW-17	Flett	2024-09-07	TMWATR092924CH1-007													
SW-17	Flett	2024-09-07	MTWATR100124JS1-008													
SW-17	ALS	2024-10-05	WP2423572	0.00143	0.00145	0.00016	0.00017	25.1	0.00055	0.00055	<0.0010	<0.0010		<0.0010		
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009													
SW-17	Flett	2024-10-05	MTWATR112624JS1-017													
SW-17	ALS	2024-11-03	WP2425500	0.00129	0.00164	0.00016	0.0003	22.6	0.00081	0.0008	<0.0010	<0.0010		<0.0010		
SW-17	Flett	2024-11-03	MTWATR120524JS1-010													
SW-17	Flett	2024-11-03	TMWATR112524CH1-011													
SW-17	ALS	2024-12-02	WP2426974	0.0024	0.00125	0.00094	0.00065	50.2	0.00494	<0.00050	<0.0010	0.001		0.0013		
SW-17	Flett	2024-12-02	TMWATR012125CH1-005													
SW-17	Flett	2024-12-02	MTWATR121924JS1-005													
SW-18	ALS	2023-05-21	WP2309398	0.00041	0.00072	0.00022	0.00025	323	0.00061	0.00073	0.0018	0.0015		0.0016		
SW-18	ALS	2023-05-21	WP2309398	<0.00050	0.00053	0.00024	0.00027	321	0.00072	0.0007	0.0014	0.0017		0.0016		
SW-18	ALS	2023-05-21	WP2309398-006													
SW-18	ALS	2023-05-21	WP2309398-002	0.00048												
SW-18	ALS	2024-05-23	WP2413138	0.00173	0.00192	0.00052	0.0006	46.3	0.00273	0.0037	0.0019	0.0021		0.0016		
SW-18	ALS	2024-10-05	WP2423572	0.00217	0.00216	0.00091	0.00094	28.5	0.00173	0.00216	0.001	<0.0010		<0.0010		
SW-18	Flett	2024-10-05	MTWATR112624JS1-019													
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010													
SW-18	Flett	2024-10-05	MTWATR112624JS1-018													
SW-GL	SGS	2022-07-13	CA15242-JUL22	0.00021	0.00023	0.000018	0.000052	54	0.0004	0.0003			< 0.01			< 0.06
SW-GL	SGS	2022-09-13	CA15263-SEP22	< 0.00008	0.00022	0.000019	0.000033	59	0.0004	0.0002			< 0.01			< 0.06
SW-GL	SGS	2022-10-18	CA15422-OCT22	0.00108	0.00189	0.000154	0.000164	57	0.0013	0.0005	< 0.005		< 0.01			< 0.06
SW-GL	SGS	2022-11-08	CA15232-NOV22	0.00015	0.00011	0.000018	0.000021	60	0.0004	0.0004			< 0.01			< 0.06
SW-GL	SGS	2023-02-07	CA15283-FEB23	< 0.00008	< 0.00008	< 0.000004	0.000023	62	0.0004	0.0003	< 0.005		< 0.01	< 0.01		0.11
SW-GL	SGS	2023-03-23	CA13921-MAR23	0.00013	0.00082	0.000017	0.000017	70	0.0005	0.0003	< 0.005		< 0.01			0.06
SW-GL	ALS	2023-05-25	WP2309710-001													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-15	ALS	2024-05-21	WP2412814	42.6	44.2	0.299	0.908	0.000075	0.000231	0.0018	0.0024	3.62	3.83	0.019	0.0286
SW-15	ALS	2024-05-21	WP2412814	40.4	44.7	0.277	0.947	0.000082	0.000253	0.0018	0.0024	3.32	3.88	0.0184	0.0304
SW-15	ALS	2024-08-10	WP2419573	52.2	56.4	0.485	1.01	0.000356	0.000381	0.002	0.0034	4.32	4.54	0.0188	0.0347
SW-15	ALS	2024-10-02	WP2423347	52.4	56.1	0.428	0.697	0.000088	0.000178	0.0019	0.0029	4.29	4.46	0.021	0.0261
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003												
SW-15	Flett	2024-10-02	MTWATR111324JS2-002												
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001												
SW-16	Flett	2022-09-06	MTWATR092022JS1-001												
SW-16	SGS	2022-09-06	CA13362-SEP22	53.6	55.4	0.75	0.743	0.00022	0.00018			4.08	4.18	0.137	0.103
SW-16	SGS	2022-10-07	CA15352-OCT22	55.7	59.1	0.568	0.72	< 0.00009	0.00012			4.27	4.54	0.0564	0.0625
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009												
SW-16	Flett	2022-10-17	MTWATR110722JS1-009												
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008												
SW-16	Flett	2022-10-17	MTWATR110722JS1-008												
SW-16	SGS	2023-02-28	CA12171-MAR23	67	71.7	0.662	0.722	< 0.00009	< 0.00009			5.3	5.77	0.0818	0.0851
SW-17	SGS	2022-08-09	CA15226-AUG22	17.2	17	4.37	4.55	0.00018	0.00028			1.38	1.34	0.128	0.12
SW-17	SGS	2022-09-14	CA15266-SEP22	12.1	12	4.11	4.17	0.0001	0.00014			0.998	0.97	0.0271	0.0272
SW-17	SGS	2022-10-07	CA15352-OCT22	9.39	9.94	2.03	3.98	< 0.00009	0.00016			0.742	0.783	0.0256	0.0359
SW-17	ALS	2023-05-21	WP2309398	13.5	14.2	0.693	0.778	0.00007	0.000077	<0.0010	0.0013	1.13	1.22	0.0163	0.0169
SW-17	ALS	2023-05-21	WP2309398-003												
SW-17	ALS	2024-02-11	WP2403349	136	143	0.11	0.341	<0.000050	0.000193	0.0018	<0.0010	8.64	9.41	0.478	0.513
SW-17	ALS	2024-02-11	WP2403349-009												
SW-17	ALS	2024-05-23	WP2413138	13.4	13.7	0.691	0.776	0.000076	0.000082	0.0011	<0.0010	1.05	1.11	0.0102	0.0111
SW-17	ALS	2024-08-10	WP2419573	12.2	13.7	1.97	4.18	0.000089	0.000182	<0.0010	<0.0010	0.926	1.03	0.0281	0.0463
SW-17	ALS	2024-09-07	WP2421728	12.2	12.2	1.9	2.95	0.000053	0.000097	<0.0010	<0.0010	1.06	1.01	0.00817	0.0138
SW-17	Flett	2024-09-07	TMWATR092924CH1-007												
SW-17	Flett	2024-09-07	MTWATR100124JS1-008												
SW-17	ALS	2024-10-05	WP2423572	11	11.9	1.95	2.64	0.00006	0.000075	<0.0010	<0.0010	0.972	1.03	0.0044	0.00503
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009												
SW-17	Flett	2024-10-05	MTWATR112624JS1-017												
SW-17	ALS	2024-11-03	WP2425500	10.4	10.8	1.56	2.67	0.000052	0.000133	<0.0010	<0.0010	0.899	0.934	0.00529	0.0145
SW-17	Flett	2024-11-03	MTWATR120524JS1-010												
SW-17	Flett	2024-11-03	TMWATR112524CH1-011												
SW-17	ALS	2024-12-02	WP2426974	16	10.3	2.52	1.95	0.000096	0.000079	<0.0010	<0.0010	1.32	0.888	0.0831	0.0554
SW-17	Flett	2024-12-02	TMWATR012125CH1-005												
SW-17	Flett	2024-12-02	MTWATR121924JS1-005												
SW-18	ALS	2023-05-21	WP2309398	58.4	55.3	0.309	0.421	<0.000050	0.000071	0.0018	0.002	5.1	5.24	0.0632	0.0624
SW-18	ALS	2023-05-21	WP2309398	57.8	57.9	0.324	0.435	0.00005	0.000105	0.0017	0.0021	5.12	5.27	0.06	0.0675
SW-18	ALS	2023-05-21	WP2309398-006												
SW-18	ALS	2023-05-21	WP2309398-002												
SW-18	ALS	2024-05-23	WP2413138	17.9	14.9	0.782	0.832	0.000226	0.000381	<0.0010	<0.0010	1.25	1.05	0.00877	0.00787
SW-18	ALS	2024-10-05	WP2423572	12.9	13.6	1.58	1.86	0.000234	0.000299	0.0015	0.0015	1.07	1.11	0.0261	0.0287
SW-18	Flett	2024-10-05	MTWATR112624JS1-019												
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010												
SW-18	Flett	2024-10-05	MTWATR112624JS1-018												
SW-GL	SGS	2022-07-13	CA15242-JUL22	30.4	31.4	0.048	0.054	< 0.00009	< 0.00009	0.0012	0.0011	2.07	2.07	0.00682	0.00586
SW-GL	SGS	2022-09-13	CA15263-SEP22	30.3	30.1	0.054	0.17	< 0.00009	< 0.00009			2.04	2	0.00039	0.03219
SW-GL	SGS	2022-10-18	CA15422-OCT22	31	31	0.105	0.239	< 0.00009	< 0.00009			2.03	2.22	0.0009	0.0139
SW-GL	SGS	2022-11-08	CA15232-NOV22	26.2	28.4	0.093	0.175	< 0.00009	< 0.00009			1.84	2.01	0.00073	0.00802
SW-GL	SGS	2023-02-07	CA15283-FEB23	32.9	36.2	0.053	0.091	< 0.00009	< 0.00009			2.11	2.29	0.00024	0.00095
SW-GL	SGS	2023-03-23	CA13921-MAR23	37.1	36.1	0.052	0.088	< 0.00009	< 0.00009			2.52	2.44	0	0.00058
SW-GL	ALS	2023-05-25	WP2309710-001												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-15	ALS	2024-05-21	WP2412814	<0.0000050		<0.0000050		0.000282	0.000296	0.00079	0.00134	0.0121	0.0121	<0.0010	<0.03
SW-15	ALS	2024-05-21	WP2412814	<0.0000050		<0.0000050		0.000272	0.000284	0.00068	0.00134	0.0141	0.0141	<0.0010	<0.03
SW-15	ALS	2024-08-10	WP2419573	<0.0000050		0.000006		0.00029	0.000226	0.00121	0.00177	0.103	0.107	0.0038	
SW-15	ALS	2024-10-02	WP2423347	<0.0000050		<0.0000050		0.000316	0.00038	0.00089	0.00112	0.0264	0.0274	0.001	<0.030
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003				2.92								
SW-15	Flett	2024-10-02	MTWATR111324JS2-002		0.246										
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001				6.35								
SW-16	Flett	2022-09-06	MTWATR092022JS1-001		0.629										
SW-16	SGS	2022-09-06	CA13362-SEP22			< 0.00001		0.00014	0.00021	0.001	0.0011	< 0.06	< 0.06	< 0.03	
SW-16	SGS	2022-10-07	CA15352-OCT22			< 0.00001		0.00013	0.00019	0.0007	0.0008	< 0.06	0.1	0.1	
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009				4.83								
SW-16	Flett	2022-10-17	MTWATR110722JS1-009		0.804										
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008				4.8								
SW-16	Flett	2022-10-17	MTWATR110722JS1-008		0.755										
SW-16	SGS	2023-02-28	CA12171-MAR23	< 0.00001		< 0.00001		0.00017	0.00021	0.0007	0.0007	0.26	0.26	< 0.03	
SW-17	SGS	2022-08-09	CA15226-AUG22			< 0.00001		0.00012	0.00012	0.002	0.0021	< 0.06	< 0.06	< 0.03	
SW-17	SGS	2022-09-14	CA15266-SEP22			< 0.00001		0.00006	0.00007	0.001	0.0011	< 0.06	< 0.06	< 0.03	
SW-17	SGS	2022-10-07	CA15352-OCT22			< 0.00001		0.0001	0.00011	0.0008	0.0009	< 0.06	< 0.06	< 0.03	
SW-17	ALS	2023-05-21	WP2309398	0.0000076		0.0000077		0.000075	0.000081	0.00093	0.00101	<0.0050	<0.0051	<0.0010	
SW-17	ALS	2023-05-21	WP2309398-003												
SW-17	ALS	2024-02-11	WP2403349	<0.0000050		0.0000052		0.000101	0.000142	0.00207	0.0025	0.322	0.322	<0.0200	
SW-17	ALS	2024-02-11	WP2403349-009												
SW-17	ALS	2024-05-23	WP2413138	0.0000057		0.000006		0.000064	0.00006	0.00097	0.00106	<0.0050	<0.0051	<0.0010	
SW-17	ALS	2024-08-10	WP2419573	<0.0000050		<0.0000050		0.000079	0.000093	0.00104	0.00115	<0.0050	<0.0051	<0.0010	
SW-17	ALS	2024-09-07	WP2421728	<0.0000050		<0.0000050		<0.000050	0.000059	0.00088	0.00092	<0.0050	<0.0051	<0.0010	<0.030
SW-17	Flett	2024-09-07	TMWATR092924CH1-007				3.76								
SW-17	Flett	2024-09-07	MTWATR100124JS1-008		0.431										
SW-17	ALS	2024-10-05	WP2423572	<0.0000050		<0.0000050		0.00006	0.000055	0.00088	0.00088	<0.0050	<0.0051	<0.0010	<0.030
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009				3.41								
SW-17	Flett	2024-10-05	MTWATR112624JS1-017		0.331										
SW-17	ALS	2024-11-03	WP2425500	<0.0000050		<0.0000050		0.000058	0.000106	0.00076	0.00093	<0.0050	<0.0051	<0.0010	0.044
SW-17	Flett	2024-11-03	MTWATR120524JS1-010		0.323										
SW-17	Flett	2024-11-03	TMWATR112524CH1-011				4.3								
SW-17	ALS	2024-12-02	WP2426974	<0.0000050		<0.0000050		0.000136	<0.000050	0.00507	0.00072	0.302	0.303	0.0013	0.037
SW-17	Flett	2024-12-02	TMWATR012125CH1-005				4.07								
SW-17	Flett	2024-12-02	MTWATR121924JS1-005		0.229										
SW-18	ALS	2023-05-21	WP2309398	<0.0000050		0.0000052		0.000309	0.000276	0.0013	0.00132	<0.0050	<0.0051	<0.0010	
SW-18	ALS	2023-05-21	WP2309398	0.000005		0.0000071		0.000276	0.000314	0.00133	0.00137	<0.0050	<0.0051	<0.0010	
SW-18	ALS	2023-05-21	WP2309398-006												
SW-18	ALS	2023-05-21	WP2309398-002												
SW-18	ALS	2024-05-23	WP2413138	0.0000208		0.0000256		<0.000050	<0.000050	0.00138	0.00153	<0.0050	<0.0051	<0.0010	
SW-18	ALS	2024-10-05	WP2423572	0.0000054		0.000008		0.000116	0.000122	0.00154	0.00153	0.0402	0.0402	<0.0010	<0.030
SW-18	Flett	2024-10-05	MTWATR112624JS1-019		0.25										
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010				7.8								
SW-18	Flett	2024-10-05	MTWATR112624JS1-018		0.244										
SW-GL	SGS	2022-07-13	CA15242-JUL22	< 0.00001		< 0.00001		0.0001	0.00007	0.0001	0.0002	<0.06	<0.06	<0.03	
SW-GL	SGS	2022-09-13	CA15263-SEP22			< 0.00001		0.00027	0.00013	0.0001	0.0002	< 0.06	< 0.06	< 0.03	
SW-GL	SGS	2022-10-18	CA15422-OCT22	< 0.00001		< 0.00001		0.00096	0.00041	0.0012	0.0006	< 0.06	< 0.06	< 0.03	
SW-GL	SGS	2022-11-08	CA15232-NOV22	< 0.00001		< 0.00001		0.00008	0.00009	0.0002	0.0002	< 0.06	< 0.06	< 0.03	
SW-GL	SGS	2023-02-07	CA15283-FEB23	< 0.00001		< 0.00001		0.00016	0.00015	< 0.0001	0.0001	< 0.06	< 0.06	< 0.03	
SW-GL	SGS	2023-03-23	CA13921-MAR23	< 0.00001		< 0.00001		0.00011	0.0001	< 0.0001	< 0.0001	< 0.06	< 0.06	< 0.03	
SW-GL	ALS	2023-05-25	WP2309710-001												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-15	ALS	2024-05-21	WP2412814	<0.030	0.049	0.0345	<0.050	0.974	1.16		0.0014	0.00248	0.000096	0.000139	2.09
SW-15	ALS	2024-05-21	WP2412814	<0.030	0.041	0.035	<0.050	1.03	1.17		0.0014	0.00255	<0.000050	0.000168	2.06
SW-15	ALS	2024-08-10	WP2419573	<0.030	0.059	0.186	0.059	0.996	1.22		0.00142	0.00249	0.000128	0.000146	3.59
SW-15	ALS	2024-10-02	WP2423347		0.036	0.033		1.07	1.16		0.00169	0.00218	0.000088	<0.000050	3.56
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003												
SW-15	Flett	2024-10-02	MTWATR111324JS2-002												
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001												
SW-16	Flett	2022-09-06	MTWATR092022JS1-001												
SW-16	SGS	2022-09-06	CA13362-SEP22	0.018			0.022	0.805	0.827				0.00016	0.00017	2.96
SW-16	SGS	2022-10-07	CA15352-OCT22	< 0.003			0.02	0.782	0.84				0.00007	0.00006	1.49
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009												
SW-16	Flett	2022-10-17	MTWATR110722JS1-009												
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008												
SW-16	Flett	2022-10-17	MTWATR110722JS1-008												
SW-16	SGS	2023-02-28	CA12171-MAR23	0.016			0.024	1.05	1.1				0.00018	0.00019	4.83
SW-17	SGS	2022-08-09	CA15226-AUG22	0.045			0.07	0.348	0.343				0.0002	0.0002	
SW-17	SGS	2022-09-14	CA15266-SEP22	0.037			0.043	0.134	0.142				0.00013	0.00011	0.41
SW-17	SGS	2022-10-07	CA15352-OCT22	0.026			0.055	0.55	0.577				0.00006	0.00007	0.2
SW-17	ALS	2023-05-21	WP2309398	<0.030	<0.030	0.0212	<0.050	0.285	0.285		0.00169	0.00163	0.000111	0.000144	1.71
SW-17	ALS	2023-05-21	WP2309398-003				<0.030								
SW-17	ALS	2024-02-11	WP2403349	0.05	0.148	0.102	0.148	26.6	28.9		0.0539	0.0557	0.000077	0.000104	1.71
SW-17	ALS	2024-02-11	WP2403349-009												
SW-17	ALS	2024-05-23	WP2413138	<0.030	<0.030	0.0267	<0.050	0.3	0.332		0.00192	0.00214	0.000196	0.000148	2.26
SW-17	ALS	2024-08-10	WP2419573	<0.030	0.084	0.103	0.084	0.246	0.285		0.00156	0.00193	0.00012	0.000123	1.84
SW-17	ALS	2024-09-07	WP2421728	<0.050	0.058	0.0609	0.058	0.347	0.361		0.00224	0.00266	<0.000050	0.00007	0.304
SW-17	Flett	2024-09-07	TMWATR092924CH1-007												
SW-17	Flett	2024-09-07	MTWATR100124JS1-008												
SW-17	ALS	2024-10-05	WP2423572		0.038	0.0405		0.615	0.585		0.00404	0.00404	0.000099	0.000128	0.126
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009												
SW-17	Flett	2024-10-05	MTWATR112624JS1-017												
SW-17	ALS	2024-11-03	WP2425500		0.088	0.0624		0.787	0.711		0.00425	0.0046	0.000067	0.00008	0.769
SW-17	Flett	2024-11-03	MTWATR120524JS1-010												
SW-17	Flett	2024-11-03	TMWATR112524CH1-011												
SW-17	ALS	2024-12-02	WP2426974		0.043	0.067		1.18	0.765		0.0073	0.00489	0.000159	<0.000050	2.34
SW-17	Flett	2024-12-02	TMWATR012125CH1-005												
SW-17	Flett	2024-12-02	MTWATR121924JS1-005												
SW-18	ALS	2023-05-21	WP2309398	<0.030	<0.030	0.0281	<0.050	1.12	1.18		0.00121	0.0011	0.000132	0.000136	1.51
SW-18	ALS	2023-05-21	WP2309398	<0.050	0.039	0.0289	<0.050	1.18	1.2		0.00109	0.0012	0.000129	0.000136	1.51
SW-18	ALS	2023-05-21	WP2309398-006				<0.030								
SW-18	ALS	2023-05-21	WP2309398-002	<0.030			0.039								
SW-18	ALS	2024-05-23	WP2413138	<0.030	<0.030	0.0281	<0.050	0.428	0.5		0.00212	0.00256	0.000256	0.000234	5.68
SW-18	ALS	2024-10-05	WP2423572		0.036	0.0504		0.086	0.106		0.00045	0.0006	0.000207	0.000079	11.4
SW-18	Flett	2024-10-05	MTWATR112624JS1-019												
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010												
SW-18	Flett	2024-10-05	MTWATR112624JS1-018												
SW-GL	SGS	2022-07-13	CA15242-JUL22	0.005			0.01	0.651	0.653				0.00008	0.00009	1.14
SW-GL	SGS	2022-09-13	CA15263-SEP22	< 0.003			0.02	0.679	0.693				0.00008	0.00008	1.32
SW-GL	SGS	2022-10-18	CA15422-OCT22	0.105			0.104	0.693	0.692				0.00153	0.00523	1.35
SW-GL	SGS	2022-11-08	CA15232-NOV22	0.01			0.017	0.579	0.641	---			< 0.00004	0.00008	0.96
SW-GL	SGS	2023-02-07	CA15283-FEB23	0.018			0.016	0.763	0.853				< 0.00004	0.00008	1.22
SW-GL	SGS	2023-03-23	CA13921-MAR23	0.008			0.012	0.856	0.832				< 0.00004	< 0.00004	1.33
SW-GL	ALS	2023-05-25	WP2309710-001				<0.030								

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-15	ALS	2024-05-21	WP2412814	3.37	<0.000010	<0.000010	1.85	1.84	75.7	7.7	0.023	0.0247	<0.50	<0.50	0.84	<0.00020
SW-15	ALS	2024-05-21	WP2412814	3.25	<0.000010	<0.000010	1.73	1.82	75	8.6	0.0245	0.0254	<0.50	0.57	0.87	<0.00020
SW-15	ALS	2024-08-10	WP2419573	4.55	0.000012	0.000011	2.06	2.06	116	14.8	0.0318	0.034	0.74	0.54	0.89	<0.00020
SW-15	ALS	2024-10-02	WP2423347	4.31	<0.000010	0.000015	1.93	1.98	112	6	0.0302	0.0328	<0.50	0.54	0.49	<0.00020
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003													
SW-15	Flett	2024-10-02	MTWATR111324JS2-002													
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001													
SW-16	Flett	2022-09-06	MTWATR092022JS1-001													
SW-16	SGS	2022-09-06	CA13362-SEP22	2.93	< 0.00005	< 0.00005	39.9	41.3	280	10	0.0438	0.0451	< 1	< 1	< 2	
SW-16	SGS	2022-10-07	CA15352-OCT22	1.49	< 0.00005	< 0.00005	41.2	44.6	269	2	0.044	0.0468	< 1	< 1	< 20	
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009													
SW-16	Flett	2022-10-17	MTWATR110722JS1-009													
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008													
SW-16	Flett	2022-10-17	MTWATR110722JS1-008													
SW-16	SGS	2023-02-28	CA12171-MAR23	5.2	< 0.00005	< 0.00005	50	53.3	263	< 2	0.0512	0.054	< 1	< 1	< 20	
SW-17	SGS	2022-08-09	CA15226-AUG22		< 0.00005	< 0.00005	1.02	1.03	160	13	0.0244	0.0246			< 2	
SW-17	SGS	2022-09-14	CA15266-SEP22	0.4	< 0.00005	< 0.00005	1	0.98	69	9	0.0189	0.0185	< 1	< 1	< 2	
SW-17	SGS	2022-10-07	CA15352-OCT22	0.21	< 0.00005	< 0.00005	3.85	3.86	71	5	0.0137	0.0147	< 1	< 1	< 2	
SW-17	ALS	2023-05-21	WP2309398	1.83	<0.000010	<0.000010	1.08	1.21	56	<1.0	0.0184	0.0183	0.9	0.89	1.9	<0.00020
SW-17	ALS	2023-05-21	WP2309398-003													
SW-17	ALS	2024-02-11	WP2403349	2.42	<0.000010	0.000026	849	844	2290	13	0.359	0.376	11.5	14.5	22.2	<0.00020
SW-17	ALS	2024-02-11	WP2403349-009													
SW-17	ALS	2024-05-23	WP2413138	2.3	<0.000010	<0.000010	1.54	3.04	126	<1.0	0.0188	0.0187	<0.50	0.56	1.56	<0.00020
SW-17	ALS	2024-08-10	WP2419573	2.01	<0.000010	<0.000010	1.04	2.22	58.6	5.6	0.0177	0.0197	<0.50	<0.50	<0.30	<0.00020
SW-17	ALS	2024-09-07	WP2421728	0.33	<0.000010	<0.000010	1.12	1.42	57.3	5.9	0.0182	0.0182	<0.50	<0.50	<0.30	<0.00020
SW-17	Flett	2024-09-07	TMWATR092924CH1-007													
SW-17	Flett	2024-09-07	MTWATR100124JS1-008													
SW-17	ALS	2024-10-05	WP2423572	0.15	<0.000010	<0.000010	1.15	1.17	39	2.7	0.015	0.0153	<0.50	<0.50	<0.30	<0.00020
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009													
SW-17	Flett	2024-10-05	MTWATR112624JS1-017													
SW-17	ALS	2024-11-03	WP2425500	0.83	<0.000010	<0.000010	1.03	0.882	45.9	23.9	0.0131	0.0142	<0.50	<0.50	<0.30	<0.00020
SW-17	Flett	2024-11-03	MTWATR120524JS1-010													
SW-17	Flett	2024-11-03	TMWATR112524CH1-011													
SW-17	ALS	2024-12-02	WP2426974	1.57	<0.000010	<0.000010	1.66	1.19	70.6	3.6	0.0209	0.015	<0.50	<0.50	0.79	<0.00020
SW-17	Flett	2024-12-02	TMWATR012125CH1-005													
SW-17	Flett	2024-12-02	MTWATR121924JS1-005													
SW-18	ALS	2023-05-21	WP2309398	1.52	<0.000010	<0.000010	43.4	45.5	209	<1.0	0.0413	0.0395	0.68	0.76	1.08	<0.00020
SW-18	ALS	2023-05-21	WP2309398	1.59	<0.000010	<0.000010	43.2	45.4	209	1.3	0.0398	0.0399	0.81	0.81	1.08	<0.00020
SW-18	ALS	2023-05-21	WP2309398-006													
SW-18	ALS	2023-05-21	WP2309398-002													
SW-18	ALS	2024-05-23	WP2413138	6.07	0.000017	<0.000010	3.59	8.36	122	<1.0	0.0244	0.0239	0.53	0.78	1.49	<0.00020
SW-18	ALS	2024-10-05	WP2423572	12	<0.000010	<0.000010	1.91	2.2	90.7	3.9	0.0214	0.0214	<0.50	<0.50	0.53	<0.00020
SW-18	Flett	2024-10-05	MTWATR112624JS1-019													
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010													
SW-18	Flett	2024-10-05	MTWATR112624JS1-018													
SW-GL	SGS	2022-07-13	CA15242-JUL22	1.06	< 0.00005	< 0.00005	1.07	1.08	66	3	0.0198	0.0179		< 1	< 2	
SW-GL	SGS	2022-09-13	CA15263-SEP22	1.29	< 0.00005	< 0.00005	1.16	1.43	43	3	0.0216	0.02134	< 1	< 1	< 2	
SW-GL	SGS	2022-10-18	CA15422-OCT22	1.14	< 0.00005	0.00007	1.22	1.1	< 30	2	0.0223	0.0217	1	2	< 2	
SW-GL	SGS	2022-11-08	CA15232-NOV22	0.97	< 0.00005	< 0.00005	1.02	1.2	46	5	0.0193	0.0205	< 1	< 1	3	
SW-GL	SGS	2023-02-07	CA15283-FEB23	1.29	< 0.00005	< 0.00005	1.33	1.44	46	< 2	0.0225	0.0246	< 1	< 1	< 2	
SW-GL	SGS	2023-03-23	CA13921-MAR23	1.31	< 0.00005	< 0.00005	1.42	1.35	63	< 2	0.0244	0.0236	< 1	< 1	< 2	
SW-GL	ALS	2023-05-25	WP2309710-001													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-15	ALS	2024-05-21	WP2412814	<0.00020	<0.000010	<0.000010	<0.00010	0.00012	<0.00010	<0.00010	0.00265	0.0281		<0.00010	<0.00010	0.000155
SW-15	ALS	2024-05-21	WP2412814	<0.00020	<0.000010	0.00001	<0.00010	0.00013	<0.00010	<0.00010	0.00345	0.0283		<0.00010	<0.00010	0.000143
SW-15	ALS	2024-08-10	WP2419573	<0.00020	<0.000010	<0.000010	0.00018	0.00024	<0.00010	<0.00010	0.00509	0.0218		<0.00010	<0.00010	0.000138
SW-15	ALS	2024-10-02	WP2423347	<0.00020	<0.000010	0.000016	<0.00010	<0.00010	<0.00010	<0.00010	0.0028	0.0136		<0.00010	<0.00010	0.00016
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003													
SW-15	Flett	2024-10-02	MTWATR111324JS2-002													
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001													
SW-16	Flett	2022-09-06	MTWATR092022JS1-001													
SW-16	SGS	2022-09-06	CA13362-SEP22		0.00001	0.000009			< 0.00006	< 0.00006	0.00197	0.00242	50	< 0.00002	< 0.00002	0.000076
SW-16	SGS	2022-10-07	CA15352-OCT22		0.000007	0.000008			< 0.00006	< 0.00006	0.00149	0.00174	33	< 0.00002	< 0.00002	0.000058
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009													
SW-16	Flett	2022-10-17	MTWATR110722JS1-009													
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008													
SW-16	Flett	2022-10-17	MTWATR110722JS1-008													
SW-16	SGS	2023-02-28	CA12171-MAR23		< 0.000005	< 0.000005			< 0.00006	0.00011	0.00173	0.00164	37	< 0.00002	0.00003	0.000066
SW-17	SGS	2022-08-09	CA15226-AUG22		0.000005	0.000006			< 0.00006	0.00018	0.0162	0.0169	45	< 0.00002	< 0.00002	0.00008
SW-17	SGS	2022-09-14	CA15266-SEP22		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00888	0.009	31	< 0.00002	< 0.00002	0.000055
SW-17	SGS	2022-10-07	CA15352-OCT22		< 0.000005	0.000015			< 0.00006	< 0.00006	0.00622	0.0117	24	< 0.00002	0.00003	0.000053
SW-17	ALS	2023-05-21	WP2309398	<0.00020	<0.000010	<0.000010	0.00023	0.0002	<0.00010	<0.00010	0.00677	0.00771		<0.00010	<0.00010	0.00009
SW-17	ALS	2023-05-21	WP2309398-003													
SW-17	ALS	2024-02-11	WP2403349	<0.00020	0.000051	0.000058	<0.00010	<0.00010	<0.00010	<0.00010	0.00072	0.0132		<0.00010	0.00022	0.000027
SW-17	ALS	2024-02-11	WP2403349-009													
SW-17	ALS	2024-05-23	WP2413138	<0.00020	<0.000010	<0.000010	0.00025	0.00022	<0.00010	<0.00010	0.00774	0.0083		<0.00010	<0.00010	0.000094
SW-17	ALS	2024-08-10	WP2419573	<0.00020	<0.000010	<0.000010	0.00019	0.0002	<0.00010	<0.00010	0.00838	0.0114		<0.00010	<0.00010	0.000053
SW-17	ALS	2024-09-07	WP2421728	<0.00020	<0.000010	<0.000010	0.00012	0.00013	<0.00010	<0.00010	0.0049	0.00744		<0.00010	<0.00010	0.000034
SW-17	Flett	2024-09-07	TMWATR092924CH1-007													
SW-17	Flett	2024-09-07	MTWATR100124JS1-008													
SW-17	ALS	2024-10-05	WP2423572	<0.00020	<0.000010	<0.000010	0.00014	0.00013	<0.00010	<0.00010	0.00565	0.00611		<0.00010	<0.00010	0.000036
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009													
SW-17	Flett	2024-10-05	MTWATR112624JS1-017													
SW-17	ALS	2024-11-03	WP2425500	<0.00020	<0.000010	<0.000010	0.00012	0.00012	<0.00010	<0.00010	0.00587	0.0104		<0.00010	<0.00010	0.00004
SW-17	Flett	2024-11-03	MTWATR120524JS1-010													
SW-17	Flett	2024-11-03	TMWATR112524CH1-011													
SW-17	ALS	2024-12-02	WP2426974	<0.00020	<0.000010	<0.000010	0.00019	0.00012	<0.00010	<0.00010	0.00804	0.00688		<0.00010	<0.00010	0.00006
SW-17	Flett	2024-12-02	TMWATR012125CH1-005													
SW-17	Flett	2024-12-02	MTWATR121924JS1-005													
SW-18	ALS	2023-05-21	WP2309398	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00175	0.00183		<0.00010	<0.00010	0.000063
SW-18	ALS	2023-05-21	WP2309398	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00173	0.00191		<0.00010	<0.00010	0.000068
SW-18	ALS	2023-05-21	WP2309398-006													
SW-18	ALS	2023-05-21	WP2309398-002													
SW-18	ALS	2024-05-23	WP2413138	<0.00020	0.000017	0.000021	0.00098	0.00106	<0.00010	<0.00010	0.0092	0.0114		<0.00010	0.0001	0.000372
SW-18	ALS	2024-10-05	WP2423572	<0.00020	<0.000010	<0.000010	0.00074	0.00073	<0.00010	<0.00010	0.0153	0.0162		<0.00010	<0.00010	0.000592
SW-18	Flett	2024-10-05	MTWATR112624JS1-019													
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010													
SW-18	Flett	2024-10-05	MTWATR112624JS1-018													
SW-GL	SGS	2022-07-13	CA15242-JUL22		< 0.000005	< 0.000005			< 0.00006	< 0.00006			9	< 0.00002	< 0.00002	0.000032
SW-GL	SGS	2022-09-13	CA15263-SEP22		< 0.000005	< 0.000005			< 0.00006	< 0.00006	0.00012	0.00048	10	< 0.00002	< 0.00002	0.000036
SW-GL	SGS	2022-10-18	CA15422-OCT22		0.000008	0.000008			< 0.00006	0.00008	0.00348	0.00757	10	0.00013	0.00002	0.000048
SW-GL	SGS	2022-11-08	CA15232-NOV22		< 0.000005	< 0.000005			0.0002	< 0.0001	0.00026	0.00035	9	< 0.00002	< 0.00002	0.000036
SW-GL	SGS	2023-02-07	CA15283-FEB23		< 0.000005	< 0.000005			0.00009	< 0.00006	0.00016	0.00032	10	< 0.00002	< 0.00002	0.000037
SW-GL	SGS	2023-03-23	CA13921-MAR23		< 0.000005	< 0.000005			< 0.00006	0.00007	0.00011	0.00059	10	< 0.00002	< 0.00002	0.000042
SW-GL	ALS	2023-05-25	WP2309710-001													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-15	ALS	2024-05-21	WP2412814	0.00017	0.00061	0.0018			0.0013	<0.0030	0.00042	0.00073
SW-15	ALS	2024-05-21	WP2412814	0.000171	0.00063	0.00176			0.0014	<0.0030	0.00047	0.00063
SW-15	ALS	2024-08-10	WP2419573	0.000157	0.00098	0.00217			<0.0010	0.0031	0.00081	0.00106
SW-15	ALS	2024-10-02	WP2423347	0.00017	0.00065	0.00127			<0.0010	<0.0030	0.00044	0.00055
SW-15	Flett	2024-10-02	TMWATR102524ZB1-003									
SW-15	Flett	2024-10-02	MTWATR111324JS2-002									
SW-16	Flett	2022-09-06	TMWATR091622ZB1-001									
SW-16	Flett	2022-09-06	MTWATR092022JS1-001									
SW-16	SGS	2022-09-06	CA13362-SEP22	0.000083	0.00033	0.00035	0.00035	0.00035	0.004	0.004	< 0.002	< 0.002
SW-16	SGS	2022-10-07	CA15352-OCT22	0.000066	0.00025	0.00026	0.00023	0.00025	0.002	0.004	< 0.002	< 0.002
SW-16	Flett	2022-10-17	TMWATR111022ZB3-009									
SW-16	Flett	2022-10-17	MTWATR110722JS1-009									
SW-16	Flett	2022-10-17	TMWATR111022ZB3-008									
SW-16	Flett	2022-10-17	MTWATR110722JS1-008									
SW-16	SGS	2023-02-28	CA12171-MAR23	0.000088	0.00026	0.00026	0.00021	0.00024	< 0.002	< 0.002	< 0.002	< 0.002
SW-17	SGS	2022-08-09	CA15226-AUG22	0.000092	0.0035	0.00333	0.00083	0.00081	0.006	0.005		
SW-17	SGS	2022-09-14	CA15266-SEP22	0.000062	0.00265	0.00269	0.00043	0.00042	0.004	0.003	< 0.002	< 0.002
SW-17	SGS	2022-10-07	CA15352-OCT22	0.000076	0.00188	0.00354	0.00033	0.00048	0.003	0.005	< 0.002	< 0.002
SW-17	ALS	2023-05-21	WP2309398	0.000091	0.00187	0.00206			0.0033	0.0034	0.00058	0.00051
SW-17	ALS	2023-05-21	WP2309398-003									
SW-17	ALS	2024-02-11	WP2403349	0.000044	<0.00050	0.00064			0.0539	0.0589	<0.00030	<0.00020
SW-17	ALS	2024-02-11	WP2403349-009									
SW-17	ALS	2024-05-23	WP2413138	0.000094	0.00165	0.00192			0.004	0.0044	0.00064	0.00051
SW-17	ALS	2024-08-10	WP2419573	0.000062	0.00209	0.0049			0.004	0.0048	0.00058	0.00052
SW-17	ALS	2024-09-07	WP2421728	0.000043	0.00164	0.00286			0.0032	<0.0030	0.00046	0.00042
SW-17	Flett	2024-09-07	TMWATR092924CH1-007									
SW-17	Flett	2024-09-07	MTWATR100124JS1-008									
SW-17	ALS	2024-10-05	WP2423572	0.000038	0.00168	0.00239			0.0032	<0.0030	0.00048	0.00034
SW-17	Flett	2024-10-05	TMWATR102524ZB2-009									
SW-17	Flett	2024-10-05	MTWATR112624JS1-017									
SW-17	ALS	2024-11-03	WP2425500	0.00005	0.00148	0.00275			0.0029	0.004	0.00043	0.00033
SW-17	Flett	2024-11-03	MTWATR120524JS1-010									
SW-17	Flett	2024-11-03	TMWATR112524CH1-011									
SW-17	ALS	2024-12-02	WP2426974	0.000044	0.0021	0.00172			0.0062	0.0036	0.00063	0.00032
SW-17	Flett	2024-12-02	TMWATR012125CH1-005									
SW-17	Flett	2024-12-02	MTWATR121924JS1-005									
SW-18	ALS	2023-05-21	WP2309398	0.000081	<0.00050	<0.00050			0.0035	0.0036	0.00049	0.0004
SW-18	ALS	2023-05-21	WP2309398	0.000077	<0.00050	<0.00050			0.0036	0.0039	0.00048	0.00047
SW-18	ALS	2023-05-21	WP2309398-006									
SW-18	ALS	2023-05-21	WP2309398-002									
SW-18	ALS	2024-05-23	WP2413138	0.000371	0.00149	0.0012			0.0019	0.004	0.00118	0.00113
SW-18	ALS	2024-10-05	WP2423572	0.000612	0.00263	0.00301			<0.0010	<0.0030	0.00121	0.00108
SW-18	Flett	2024-10-05	MTWATR112624JS1-019									
SW-18	Flett	2024-10-05	TMWATR102524ZB2-010									
SW-18	Flett	2024-10-05	MTWATR112624JS1-018									
SW-GL	SGS	2022-07-13	CA15242-JUL22	0.000038	0.0001	0.00019	0.00004	< 0.00002	< 0.002	< 0.002	< 0.002	< 0.002
SW-GL	SGS	2022-09-13	CA15263-SEP22	0.000037	0.00008	0.00018	< 0.00002	0.00002	< 0.002	< 0.002	< 0.002	< 0.002
SW-GL	SGS	2022-10-18	CA15422-OCT22	0.000049	0.00161	0.00042	0.00005	0.00009	0.004	< 0.002	< 0.002	< 0.002
SW-GL	SGS	2022-11-08	CA15232-NOV22	0.000032	0.00011	0.00013	< 0.00002	< 0.00002	< 0.002	< 0.002	0.004	< 0.002
SW-GL	SGS	2023-02-07	CA15283-FEB23	0.00004	0.00007	0.00011	< 0.00002	< 0.00002	< 0.002	< 0.002	< 0.002	< 0.002
SW-GL	SGS	2023-03-23	CA13921-MAR23	0.000041	0.00009	0.00013	< 0.00002	< 0.00002	0.004	0.003	< 0.002	< 0.002
SW-GL	ALS	2023-05-25	WP2309710-001									

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Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	7.23	7.52	12.9	2	31.4	<1.0	<1.0	<1.0	31.4	0.003	0.0104
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015											
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009											
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009											
SW-GL	ALS	2023-06-10	WP2311799-001	8.14	7.68	19.9	<2.0	33.7	<1.0	<1.0	<1.0	33.7	0.002	0.0096
SW-GL	ALS	2023-06-10	WP2311799-005	8.14	7.68	19.9	<2.0	34.2	<1.0	<1.0	<1.0	34.2	0.0039	0.0097
SW-GL	ALS	2023-07-17	WP2316174-003	8	7.71	18.5	<2.0	31.7	<1.0	<1.0	<1.0	31.7	0.0039	0.0095
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008											
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010											
SW-GL	ALS	2023-08-14	WP2319972	7.78	7.53	20.3	<2.0	32.3	<1.0	<1.0	<1.0	32.3	0.0034	0.007
SW-GL	ALS	2023-08-14	WP2319972-001											
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001											
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001											
SW-GL	ALS	2023-09-02	WP2322077-007	7.86	7.69	19.5	<2.0	32.1	<1.0	<1.0	<1.0	32.1	0.0023	0.0081
SW-GL	ALS	2023-09-02	WP2322077-009	7.86	7.71	19.5	<2.0	32.5	<1.0	<1.0	<1.0	32.5	0.0019	0.0074
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009											
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009											
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016											
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017											
SW-GL	ALS	2023-10-13	WP2326557-001	7.19	7.32	12.2	2.7	33.2	<1.0	<1.0	<1.0	33.2	0.002	0.0076
SW-GL	ALS	2023-11-02	WP2328687	7.5	7.56	5.2	<2.0	32.2	<1.0	<1.0	<1.0	32.2	0.0027	0.0095
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008											
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008											
SW-GL	ALS	2023-11-02	WP2328687-002											
SW-GL	ALS	2023-12-08	WP2332240	7.89	7.44	1.3	2.2	33.6	<1.0	<1.0	<1.0	33.6	0.0149	0.0242
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009											
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008											
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008											
SW-GL	ALS	2023-12-08	WP2332240-003											
SW-GL	ALS	2024-01-16	WP2401461	6.9	7.57	1.9	<2.0	36.9	<1.0	<1.0	<1.0	36.9	0.0014	0.0152
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006											
SW-GL	ALS	2024-01-16	WP2401461-001											
SW-GL	ALS	2024-01-24	WP2401958	7.41	7.4	0.7	7.8	41.9	<1.0	<1.0	<1.0	41.9	0.0241	0.0471
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004											
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003											
SW-GL	ALS	2024-01-24	WP2401958-002											
SW-GL	ALS	2024-02-06	WP2403186	7.51	7.53	1.9	2.4	35.8	<1.0	<1.0	<1.0	35.8	0.0012	0.0047
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015											
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015											
SW-GL	ALS	2024-02-06	WP2403186-001											
SW-GL	ALS	2024-03-01	WP2405262-001											
SW-GL	ALS	2024-03-01	WP2405262	7.77	7.67	1.7	<2.0	38.1	<1.0	<1.0	<1.0	38.1	0.0015	0.0038
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002											
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003											
SW-GL	ALS	2024-04-02	WP2407730	8.07	7.64	0.3	<2.0	41.4	<1.0	<1.0	<1.0	41.4	0.0013	<0.0030
SW-GL	ALS	2024-04-02	WP2407730-001											
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005											
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005											
SW-GL	ALS	2024-05-27	WP2413499	7.23	7.57	11.7	<2.0	31.6	<1.0	<1.0	<1.0	31.6	0.0041	0.0132
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018											
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017											
SW-GL	ALS	2024-06-20	WP2415789	7.13	7.62	17.8	<2.0	30.9	<1.0	<1.0	<1.0	30.9	0.011	0.0191

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-GL	ALS	2023-05-25	WP2309710			<0.0010	0.014	<0.00010	<0.00010	0.00149	0.0017	0.0059	0.00671	<0.000020	<0.000020
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015												
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009												
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009												
SW-GL	ALS	2023-06-10	WP2311799-001		0.02	0.001		<0.00010	<0.00010	0.00138	0.00181	0.00544	0.00746	<0.000020	<0.000020
SW-GL	ALS	2023-06-10	WP2311799-005		<0.010	<0.0010		<0.00010	<0.00010	0.00156	0.00188	0.00647	0.00784	<0.000020	<0.000020
SW-GL	ALS	2023-07-17	WP2316174-003		0.021	<0.0010		<0.00010	<0.00010	0.00168	0.00174	0.00623	0.00665	<0.000020	<0.000020
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008												
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010												
SW-GL	ALS	2023-08-14	WP2319972			<0.0010	<0.010	<0.00010	<0.00010	0.00177	0.00173	0.0063	0.00634	<0.000020	<0.000020
SW-GL	ALS	2023-08-14	WP2319972-001		<0.010										
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001												
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001												
SW-GL	ALS	2023-09-02	WP2322077-007		<0.010	<0.0010		<0.00010	<0.00010	0.00174	0.00184	0.00667	0.00696	<0.000020	<0.000020
SW-GL	ALS	2023-09-02	WP2322077-009		0.01	<0.0010		<0.00010	<0.00010	0.0017	0.00197	0.00645	0.00759	<0.000020	<0.000020
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009												
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009												
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016												
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017												
SW-GL	ALS	2023-10-13	WP2326557-001		0.0353	<0.0010		<0.00010	<0.00010	0.0024	0.00268	0.00739	0.00701	<0.000020	<0.000020
SW-GL	ALS	2023-11-02	WP2328687			<0.0010	0.0193	<0.00010	<0.00010	0.00216	0.00239	0.00738	0.00685	<0.000020	<0.000020
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008												
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008												
SW-GL	ALS	2023-11-02	WP2328687-002		0.0193										
SW-GL	ALS	2023-12-08	WP2332240			<0.0010	0.0182	<0.00010	0.0001	0.0021	0.00224	0.00773	0.00836	<0.000020	<0.000020
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009												
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008												
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008												
SW-GL	ALS	2023-12-08	WP2332240-003		0.0182										
SW-GL	ALS	2024-01-16	WP2401461			<0.0010	0.0152	0.0003	0.00064	0.0015	0.00191	0.00692	0.00785	<0.000020	<0.000020
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006												
SW-GL	ALS	2024-01-16	WP2401461-001		0.0152										
SW-GL	ALS	2024-01-24	WP2401958			<0.0010	0.101	<0.00010	<0.00010	0.00174	0.00197	0.00941	0.0105	<0.000020	<0.000020
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004												
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003												
SW-GL	ALS	2024-01-24	WP2401958-002		0.101										
SW-GL	ALS	2024-02-06	WP2403186			<0.0010	0.0054	<0.00010	<0.00010	0.00182	0.00184	0.00722	0.00727	<0.000020	<0.000020
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015												
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015												
SW-GL	ALS	2024-02-06	WP2403186-001		0.0054										
SW-GL	ALS	2024-03-01	WP2405262-001		0.01										
SW-GL	ALS	2024-03-01	WP2405262			<0.0010	0.01	<0.00010	<0.00010	0.00168	0.00191	0.00801	0.00813	<0.000020	<0.000020
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002												
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003												
SW-GL	ALS	2024-04-02	WP2407730			<0.0010	<0.0050	<0.00010	<0.00010	0.00174	0.00187	0.0077	0.00764	<0.000020	<0.000020
SW-GL	ALS	2024-04-02	WP2407730-001		<0.0050										
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005												
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005												
SW-GL	ALS	2024-05-27	WP2413499			<0.0010	<0.0050	<0.00010	0.00011	0.00117	0.00142	0.00633	0.00689	<0.000020	<0.000020
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018												
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017												
SW-GL	ALS	2024-06-20	WP2415789			<0.0010	0.0063	<0.00010	<0.00010	0.00129	0.00134	0.00732	0.00687	<0.000020	<0.000020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.33	9.14	9.23	<0.000010	<0.000010		0.22
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015													
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009													
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009													
SW-GL	ALS	2023-06-10	WP2311799-001	<0.000050	<0.000050	<0.100	<0.010	<0.0000050	<0.0000050	9.36	9.95	11.8	<0.000010	<0.000010		<5.00
SW-GL	ALS	2023-06-10	WP2311799-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.93	10.5	9.88	<0.000010	<0.000010		<5.00
SW-GL	ALS	2023-07-17	WP2316174-003	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.83	9.44	10.5	<0.000010	<0.000010		0.19
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008													
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010													
SW-GL	ALS	2023-08-14	WP2319972	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.22	9.72	11.1	<0.000010	<0.000010		0.19
SW-GL	ALS	2023-08-14	WP2319972-001													
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001													
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001													
SW-GL	ALS	2023-09-02	WP2322077-007	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.86	9.25	9.02	<0.000010	<0.000010		0.18
SW-GL	ALS	2023-09-02	WP2322077-009	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.98	9.26	10	<0.000010	<0.000010		0.18
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009													
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009													
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016													
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017													
SW-GL	ALS	2023-10-13	WP2326557-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.2	9.23	9.22	<0.000010	<0.000010		0.18
SW-GL	ALS	2023-11-02	WP2328687	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.6	9.91	10	<0.000010	<0.000010		0.2
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008													
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008													
SW-GL	ALS	2023-11-02	WP2328687-002													
SW-GL	ALS	2023-12-08	WP2332240	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.75	10.6	14.7	<0.000010	<0.000010		0.84
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009													
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008													
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008													
SW-GL	ALS	2023-12-08	WP2332240-003													
SW-GL	ALS	2024-01-16	WP2401461	<0.000050	<0.000050	<0.010	<0.010	0.0000054	0.0000084	9.39	10.6	11.1	<0.000010	<0.000010		0.79
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006													
SW-GL	ALS	2024-01-16	WP2401461-001													
SW-GL	ALS	2024-01-24	WP2401958	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000212	11.7	11.9	12.7	<0.000010	<0.000010		0.52
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004													
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003													
SW-GL	ALS	2024-01-24	WP2401958-002													
SW-GL	ALS	2024-02-06	WP2403186	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.3	10.3	10.5	<0.000010	<0.000010		0.21
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015													
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015													
SW-GL	ALS	2024-02-06	WP2403186-001													
SW-GL	ALS	2024-03-01	WP2405262-001													
SW-GL	ALS	2024-03-01	WP2405262	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.8	11.4	12.3	<0.000010	<0.000010		0.28
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002													
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003													
SW-GL	ALS	2024-04-02	WP2407730	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.4	11.5	11.3	<0.000010	<0.000010		0.22
SW-GL	ALS	2024-04-02	WP2407730-001													
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005													
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005													
SW-GL	ALS	2024-05-27	WP2413499	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.6	9.31	11.5	<0.000010	<0.000010		0.2
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018													
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017													
SW-GL	ALS	2024-06-20	WP2415789	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.73	9.56	12.1	<0.000010	<0.000010		0.2

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	<0.00010	<0.00010	<0.00010	<0.00010	68.4	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015													
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009													
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009													
SW-GL	ALS	2023-06-10	WP2311799-001	<0.00010	<0.00010	<0.00010	<0.00010	63.6	0.00081	<0.00050	<0.0010	0.0013		<0.0010		
SW-GL	ALS	2023-06-10	WP2311799-005	<0.00010	0.00012	<0.00010	<0.00010	65.3	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	ALS	2023-07-17	WP2316174-003	<0.00010	<0.00010	<0.00010	<0.00010	68.4	<0.00020	<0.00050	<0.0010	0.0016		0.0015		
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008													
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010													
SW-GL	ALS	2023-08-14	WP2319972	<0.00010	<0.00010	<0.00010	<0.00010	69.2	0.00022	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	ALS	2023-08-14	WP2319972-001													
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001													
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001													
SW-GL	ALS	2023-09-02	WP2322077-007	<0.00010	<0.00010	<0.00010	<0.00010	69.3	0.0002	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	ALS	2023-09-02	WP2322077-009	<0.00010	<0.00010	<0.00010	<0.00010	69	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009													
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009													
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016													
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017													
SW-GL	ALS	2023-10-13	WP2326557-001	<0.00010	<0.00010	<0.00010	<0.00010	69.9	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	ALS	2023-11-02	WP2328687	<0.00010	<0.00010	<0.00010	<0.00010	66.7	0.0003	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008													
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008													
SW-GL	ALS	2023-11-02	WP2328687-002													
SW-GL	ALS	2023-12-08	WP2332240	<0.00010	0.00022	<0.00010	<0.00010	74.5	0.00023	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009													
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008													
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008													
SW-GL	ALS	2023-12-08	WP2332240-003													
SW-GL	ALS	2024-01-16	WP2401461	<0.00050	<0.00050	<0.00010	<0.00010	81.2	0.00052	0.00087	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006													
SW-GL	ALS	2024-01-16	WP2401461-001	0.0001	0.00044											
SW-GL	ALS	2024-01-24	WP2401958	<0.00050	<0.00050	0.00031	0.00035	86.7	0.00029	0.00059	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004													
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003													
SW-GL	ALS	2024-01-24	WP2401958-002	0.00017	0.0003											
SW-GL	ALS	2024-02-06	WP2403186	<0.00050	<0.00050	<0.00010	<0.00010	76.4	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015													
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015													
SW-GL	ALS	2024-02-06	WP2403186-001	<0.00010	0.00013											
SW-GL	ALS	2024-03-01	WP2405262-001	<0.00010	0.00012											
SW-GL	ALS	2024-03-01	WP2405262	<0.00050	<0.00050	<0.00010	<0.00010	80.8	0.00034	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002													
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003													
SW-GL	ALS	2024-04-02	WP2407730	<0.00050	<0.00050	<0.00010	<0.00010	85	0.00055	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	ALS	2024-04-02	WP2407730-001	<0.00010	<0.00010											
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005													
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005													
SW-GL	ALS	2024-05-27	WP2413499	<0.00010	0.00014	<0.00010	<0.00010	64.6	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018													
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017													
SW-GL	ALS	2024-06-20	WP2415789	<0.00010	<0.00050	<0.00010	<0.00010	66.8	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	32.7	32.4	0.064	0.136	<0.000050	<0.000050	0.0011	<0.0010	2.28	2.33	0.00038	0.00968
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015												
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009												
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009												
SW-GL	ALS	2023-06-10	WP2311799-001	31.6	34.6	0.033	0.086	<0.000050	<0.000050	0.0016	<0.0010	2.01	2.36	0.00094	0.0072
SW-GL	ALS	2023-06-10	WP2311799-005	31.5	36.3	0.038	0.092	<0.000050	<0.000050	<0.0010	0.0011	2.24	2.44	0.00127	0.00766
SW-GL	ALS	2023-07-17	WP2316174-003	31.6	34.3	0.012	0.057	<0.000050	<0.000050	0.0011	0.0016	2.33	2.6	0.00057	0.0113
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008												
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010												
SW-GL	ALS	2023-08-14	WP2319972	32	33.8	0.012	0.046	<0.000050	<0.000050	<0.0010	0.0011	2.19	2.32	0.00079	0.00963
SW-GL	ALS	2023-08-14	WP2319972-001												
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001												
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001												
SW-GL	ALS	2023-09-02	WP2322077-007	34.5	32.2	0.019	0.07	<0.000050	<0.000050	0.0011	0.0013	2.4	2.21	0.00068	0.0144
SW-GL	ALS	2023-09-02	WP2322077-009	34.8	32.7	0.018	0.071	<0.000050	<0.000050	0.0013	0.0012	2.41	2.32	0.00054	0.0153
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009												
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009												
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016												
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017												
SW-GL	ALS	2023-10-13	WP2326557-001	38.5	31.9	0.176	0.254	<0.000050	<0.000050	0.0014	<0.0010	2.57	2.15	0.00581	0.0229
SW-GL	ALS	2023-11-02	WP2328687	33.2	34.1	0.156	0.23	<0.000050	<0.000050	<0.0010	<0.0010	2.24	2.27	0.0107	0.0157
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008												
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008												
SW-GL	ALS	2023-11-02	WP2328687-002												
SW-GL	ALS	2023-12-08	WP2332240	34.3	37.2	0.179	0.239	<0.000050	<0.000050	0.0016	0.0018	2.42	2.6	0.0121	0.0141
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009												
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008												
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008												
SW-GL	ALS	2023-12-08	WP2332240-003												
SW-GL	ALS	2024-01-16	WP2401461	32.9	37.2	0.086	0.126	<0.000050	0.000089	0.0012	0.0021	2.29	2.62	0.009	0.0107
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006												
SW-GL	ALS	2024-01-16	WP2401461-001												
SW-GL	ALS	2024-01-24	WP2401958	40.2	41	0.437	0.558	<0.000050	0.000062	<0.0010	0.0016	2.68	2.74	0.108	0.118
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004												
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003												
SW-GL	ALS	2024-01-24	WP2401958-002												
SW-GL	ALS	2024-02-06	WP2403186	36.6	36.5	0.078	0.107	<0.000050	<0.000050	0.0011	0.0016	2.64	2.62	0.00865	0.00971
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015												
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015												
SW-GL	ALS	2024-02-06	WP2403186-001												
SW-GL	ALS	2024-03-01	WP2405262-001												
SW-GL	ALS	2024-03-01	WP2405262	37.9	39.9	0.08	0.116	<0.000050	<0.000050	0.0016	0.0016	2.66	2.78	0.00815	0.0102
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002												
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003												
SW-GL	ALS	2024-04-02	WP2407730	39.7	40.1	0.075	0.102	<0.000050	<0.000050	0.0016	0.0015	2.74	2.77	0.00396	0.00744
SW-GL	ALS	2024-04-02	WP2407730-001												
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005												
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005												
SW-GL	ALS	2024-05-27	WP2413499	29.9	31.9	0.054	0.135	<0.000050	<0.000050	<0.0010	0.0014	2.04	2.1	0.00077	0.0114
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018												
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017												
SW-GL	ALS	2024-06-20	WP2415789	30.4	33.4	0.037	0.081	<0.000050	<0.000050	<0.0010	0.0016	2.1	2.31	0.00127	0.00823

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	<0.0000050		<0.0000050		0.000105	0.000091	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015		0.021										
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009		0.018										
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009				0.66								
SW-GL	ALS	2023-06-10	WP2311799-001	<0.0000050		<0.0000050		0.000118	0.000189	<0.00050	<0.00050	<0.250	<0.255	0.0746	
SW-GL	ALS	2023-06-10	WP2311799-005	<0.0000050		<0.0000050		0.000144	0.000109	<0.00050	<0.00050	<0.250	<0.255	<0.0500	
SW-GL	ALS	2023-07-17	WP2316174-003	<0.0000050		<0.0000050		0.0001	0.000112	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008				0.84								
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010		0.022										
SW-GL	ALS	2023-08-14	WP2319972	<0.0000050		<0.0000050		0.000116	0.000102	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	ALS	2023-08-14	WP2319972-001												
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001				0.54								
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001		0.03										
SW-GL	ALS	2023-09-02	WP2322077-007	<0.0000050		<0.0000050		0.00011	0.000133	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	ALS	2023-09-02	WP2322077-009	<0.0000050		<0.0000050		0.000095	0.000113	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009				0.49								
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009		0.016										
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016				0.4								
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017		0.026										
SW-GL	ALS	2023-10-13	WP2326557-001	<0.0000050		<0.0000050		0.000136	0.000106	<0.00050	<0.00050	0.0078	0.0078	<0.0010	
SW-GL	ALS	2023-11-02	WP2328687	<0.0000050		<0.0000050		0.000101	0.000111	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008				0.44								
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008		0.019										
SW-GL	ALS	2023-11-02	WP2328687-002												
SW-GL	ALS	2023-12-08	WP2332240	<0.0000050		<0.0000050		0.00013	0.000143	<0.00050	<0.00050	0.0244	0.0244	<0.0010	
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009		0.084										
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008				0.84								
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008		0.084										
SW-GL	ALS	2023-12-08	WP2332240-003												
SW-GL	ALS	2024-01-16	WP2401461	<0.0000050		<0.0000050		0.000121	0.000124	<0.00050	<0.00050	0.0078	0.0078	<0.0010	
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006		0.02										
SW-GL	ALS	2024-01-16	WP2401461-001												
SW-GL	ALS	2024-01-24	WP2401958	<0.0000050		<0.0000050		0.000123	0.000121	<0.00050	0.00056	0.0165	0.0177	0.0012	
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004				0.77								
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003				0.77								
SW-GL	ALS	2024-01-24	WP2401958-002												
SW-GL	ALS	2024-02-06	WP2403186	<0.0000050		<0.0000050		0.000126	0.000108	<0.00050	<0.00050	0.0129	0.0129	<0.0010	
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015				0.4								
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015		0.014										
SW-GL	ALS	2024-02-06	WP2403186-001												
SW-GL	ALS	2024-03-01	WP2405262-001												
SW-GL	ALS	2024-03-01	WP2405262	<0.0000050		<0.0000050		0.000108	0.000107	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002				0.4								
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003		0.019										
SW-GL	ALS	2024-04-02	WP2407730	<0.0000050		<0.0000050		0.000086	0.000118	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	ALS	2024-04-02	WP2407730-001												
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005				0.43								
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005		0.014										
SW-GL	ALS	2024-05-27	WP2413499	<0.0000050		<0.0000050		0.000089	0.000094	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.03
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018				0.86								
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017		0.017										
SW-GL	ALS	2024-06-20	WP2415789	<0.0000050		<0.0000050		0.000097	0.000089	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	<0.030	<0.030	0.0167	<0.050	0.739	0.702		0.00172	0.00176	0.000065	<0.000050	1.37
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015												
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009												
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009												
SW-GL	ALS	2023-06-10	WP2311799-001	<0.030		0.0096	<0.030	0.728	0.753		0.00163	0.00177	<0.000050	0.000077	1.04
SW-GL	ALS	2023-06-10	WP2311799-005	<0.030		0.0096	<0.030	0.708	0.782		0.00176	0.0018	0.000116	0.000076	1.16
SW-GL	ALS	2023-07-17	WP2316174-003	<0.030		0.0102	<0.030	0.692	0.75		0.00169	0.00178	<0.000050	0.000076	1.08
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008												
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010												
SW-GL	ALS	2023-08-14	WP2319972	<0.030	<0.030	0.0105	<0.050	0.67	0.71		0.00176	0.00177	0.000052	0.000056	1.01
SW-GL	ALS	2023-08-14	WP2319972-001				<0.030								
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001												
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001												
SW-GL	ALS	2023-09-02	WP2322077-007	<0.030		0.0109	<0.030	0.733	0.686		0.00183	0.00184	0.000054	0.000066	1.24
SW-GL	ALS	2023-09-02	WP2322077-009	<0.030		0.0136	<0.030	0.716	0.707		0.00177	0.00191	0.000058	0.000054	1.2
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009												
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009												
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016												
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017												
SW-GL	ALS	2023-10-13	WP2326557-001	<0.030		1.28	<0.030	0.862	0.74		0.002	0.00186	0.000067	0.000062	1.52
SW-GL	ALS	2023-11-02	WP2328687	<0.030	<0.030	0.0159	<0.050	0.736	0.737		0.00186	0.00188	0.000076	0.000061	0.867
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008												
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008												
SW-GL	ALS	2023-11-02	WP2328687-002				<0.030								
SW-GL	ALS	2023-12-08	WP2332240	<0.030	<0.030	0.0384	<0.050	0.724	0.761		0.00184	0.00201	0.000076	0.000087	1.24
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009												
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008												
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008												
SW-GL	ALS	2023-12-08	WP2332240-003				<0.030								
SW-GL	ALS	2024-01-16	WP2401461	<0.050	<0.030	0.0191	<0.050	1.03	1.26		0.00161	0.00202	0.000069	<0.000050	0.501
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006												
SW-GL	ALS	2024-01-16	WP2401461-001	<0.030			<0.03								
SW-GL	ALS	2024-01-24	WP2401958	<0.050	<0.030	0.0221	<0.050	0.766	0.872		0.00169	0.00163	0.000087	0.000073	3.6
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004												
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003												
SW-GL	ALS	2024-01-24	WP2401958-002	<0.030			<0.03								
SW-GL	ALS	2024-02-06	WP2403186	<0.050	<0.030	0.0148	<0.050	0.75	0.771		0.00186	0.00191	0.000054	0.000082	0.561
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015												
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015												
SW-GL	ALS	2024-02-06	WP2403186-001	<0.030			<0.03								
SW-GL	ALS	2024-03-01	WP2405262-001	<0.030			<0.03								
SW-GL	ALS	2024-03-01	WP2405262	<0.050	<0.030	0.0153	<0.050	0.831	0.868		0.0021	0.00208	0.000077	0.000094	0.599
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002												
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003												
SW-GL	ALS	2024-04-02	WP2407730	<0.050	<0.030	0.0121	<0.050	13.7	0.902		0.00272	0.00217	0.00012	0.000102	0.682
SW-GL	ALS	2024-04-02	WP2407730-001	<0.030			<0.03								
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005												
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005												
SW-GL	ALS	2024-05-27	WP2413499	<0.050	<0.030	0.0156	<0.050	0.608	0.67		0.00164	0.00165	0.000065	<0.000050	0.614
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018												
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017												
SW-GL	ALS	2024-06-20	WP2415789	<0.030	<0.03	0.0126	<0.05	0.63	0.656		0.0017	0.00168	<0.000050	<0.000050	0.636

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	1.31	<0.000010	<0.000010	1.23	1.13	48.7	1.9	0.0212	0.0199	<0.50	<0.50	0.68	<0.00020
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015													
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009													
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009													
SW-GL	ALS	2023-06-10	WP2311799-001	1.23	<0.000010	<0.000010	1.39	1.32	44.2	1.4	0.0218	0.0212	<0.50	0.6	<15.0	<0.00020
SW-GL	ALS	2023-06-10	WP2311799-005	1.34	<0.000010	<0.000010	1.17	1.35	34.2	<1.0	0.0227	0.0225	<0.50	0.59	<15.0	0.00029
SW-GL	ALS	2023-07-17	WP2316174-003	1.18	<0.000010	<0.000010	1.18	1.33	59.3	2.9	0.0222	0.0206	<0.50	<0.50	0.71	<0.00020
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008													
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010													
SW-GL	ALS	2023-08-14	WP2319972	1.14	<0.000010	<0.000010	1.06	1.23	53.8	1.6	0.0207	0.0206	<0.50	0.5	0.61	<0.00020
SW-GL	ALS	2023-08-14	WP2319972-001													
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001													
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001													
SW-GL	ALS	2023-09-02	WP2322077-007	1.17	<0.000010	<0.000010	1.15	1.2	53.7	1.4	0.0214	0.025	0.52	<0.50	0.57	<0.00020
SW-GL	ALS	2023-09-02	WP2322077-009	1.23	<0.000010	<0.000010	1.12	1.17	59	1.1	0.021	0.0262	0.54	<0.50	0.58	<0.00020
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009													
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009													
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016													
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017													
SW-GL	ALS	2023-10-13	WP2326557-001	1.27	<0.000010	<0.000010	1.2	1.1	52.7	1.8	0.0257	0.0224	<0.50	<0.50	0.63	<0.00020
SW-GL	ALS	2023-11-02	WP2328687	0.92	<0.000010	<0.000010	1.17	1.24	51.2	2.3	0.0214	0.0224	<0.50	<0.50	0.56	<0.00020
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008													
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008													
SW-GL	ALS	2023-11-02	WP2328687-002													
SW-GL	ALS	2023-12-08	WP2332240	1.41	<0.000010	<0.000010	1.34	1.4	57.8	3.5	0.0239	0.0251	<0.50	<0.50	0.6	<0.00020
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009													
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008													
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008													
SW-GL	ALS	2023-12-08	WP2332240-003													
SW-GL	ALS	2024-01-16	WP2401461	0.68	<0.000010	<0.000010	1.3	1.53	64.2	3.4	0.0225	0.0248	<0.50	<0.50	1.58	<0.00020
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006													
SW-GL	ALS	2024-01-16	WP2401461-001													
SW-GL	ALS	2024-01-24	WP2401958	3.76	<0.000010	<0.000010	1.74	1.83	66	1.6	0.0269	0.0271	0.53	<0.50	0.77	<0.00020
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004													
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003													
SW-GL	ALS	2024-01-24	WP2401958-002													
SW-GL	ALS	2024-02-06	WP2403186	0.68	<0.000010	<0.000010	1.48	1.44	62.5	<1.0	0.0226	0.023	0.51	0.61	0.64	<0.00020
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015													
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015													
SW-GL	ALS	2024-02-06	WP2403186-001													
SW-GL	ALS	2024-03-01	WP2405262-001													
SW-GL	ALS	2024-03-01	WP2405262	0.71	<0.000010	<0.000010	1.51	1.5	51.8	1.1	0.0252	0.0257	<0.50	0.51	0.68	<0.00020
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002													
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003													
SW-GL	ALS	2024-04-02	WP2407730	0.68	<0.000010	<0.000010	1.44	1.7	45.7	<1.0	0.0258	0.0251	0.58	0.5	0.63	<0.00020
SW-GL	ALS	2024-04-02	WP2407730-001													
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005													
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005													
SW-GL	ALS	2024-05-27	WP2413499	0.71	<0.000010	<0.000010	1.04	1.19	46.7	1.3	0.0214	0.0216	<0.50	<0.50	0.57	<0.00020
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018													
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017													
SW-GL	ALS	2024-06-20	WP2415789	0.75	<0.000010	<0.000010	1.07	1.31	46.2	<1.0	0.0198	0.0216	<0.50	0.51	0.72	<0.00020

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Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000034
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015													
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009													
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009													
SW-GL	ALS	2023-06-10	WP2311799-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000032
SW-GL	ALS	2023-06-10	WP2311799-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00044		<0.00010	<0.00010	0.000042
SW-GL	ALS	2023-07-17	WP2316174-003	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000038
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008													
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010													
SW-GL	ALS	2023-08-14	WP2319972	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000032
SW-GL	ALS	2023-08-14	WP2319972-001													
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001													
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001													
SW-GL	ALS	2023-09-02	WP2322077-007	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000033
SW-GL	ALS	2023-09-02	WP2322077-009	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000033
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009													
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009													
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016													
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017													
SW-GL	ALS	2023-10-13	WP2326557-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000026
SW-GL	ALS	2023-11-02	WP2328687	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000032
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008													
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008													
SW-GL	ALS	2023-11-02	WP2328687-002													
SW-GL	ALS	2023-12-08	WP2332240	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00034	0.0006		<0.00010	<0.00010	0.000038
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009													
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008													
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008													
SW-GL	ALS	2023-12-08	WP2332240-003													
SW-GL	ALS	2024-01-16	WP2401461	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00052		<0.00010	<0.00010	0.00003
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006													
SW-GL	ALS	2024-01-16	WP2401461-001													
SW-GL	ALS	2024-01-24	WP2401958	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00082	0.00182		<0.00010	<0.00010	0.00005
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004													
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003													
SW-GL	ALS	2024-01-24	WP2401958-002													
SW-GL	ALS	2024-02-06	WP2403186	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000032
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015													
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015													
SW-GL	ALS	2024-02-06	WP2403186-001													
SW-GL	ALS	2024-03-01	WP2405262-001													
SW-GL	ALS	2024-03-01	WP2405262	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000038
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002													
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003													
SW-GL	ALS	2024-04-02	WP2407730	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000036
SW-GL	ALS	2024-04-02	WP2407730-001													
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005													
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005													
SW-GL	ALS	2024-05-27	WP2413499	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00047		<0.00010	<0.00010	0.000029
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018													
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017													
SW-GL	ALS	2024-06-20	WP2415789	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00035		<0.00010	<0.00010	0.000035

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-GL	ALS	2023-05-25	WP2309710	0.000038	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2023-05-25	MTWATR060823JS1-015									
SW-GL	Flett	2023-06-10	MTWATR062123JS3-009									
SW-GL	Flett	2023-06-10	TMWATR062023ZB1-009									
SW-GL	ALS	2023-06-10	WP2311799-001	0.000044	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	ALS	2023-06-10	WP2311799-005	0.000044	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	ALS	2023-07-17	WP2316174-003	0.000037	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2023-07-18	TMWATR080423ZB1-008									
SW-GL	Flett	2023-07-18	MTWATR080223JS1-010									
SW-GL	ALS	2023-08-14	WP2319972	0.000035	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	ALS	2023-08-14	WP2319972-001									
SW-GL	Flett	2023-08-15	TMWATR082323ZB1-001									
SW-GL	Flett	2023-08-15	MTWATR082323JS1-001									
SW-GL	ALS	2023-09-02	WP2322077-007	0.000036	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	ALS	2023-09-02	WP2322077-009	0.00004	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2023-09-03	TMWATR091823ZB1-009									
SW-GL	Flett	2023-09-03	MTWATR091323JS2-009									
SW-GL	Flett	2023-10-13	TMWATR110223ZB1-016									
SW-GL	Flett	2023-10-13	MTWATR111923JS1-017									
SW-GL	ALS	2023-10-13	WP2326557-001	0.000033	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	ALS	2023-11-02	WP2328687	0.000034	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2023-11-02	TMWATR110923ZB2-008									
SW-GL	Flett	2023-11-02	MTWATR112023JS1-008									
SW-GL	ALS	2023-11-02	WP2328687-002									
SW-GL	ALS	2023-12-08	WP2332240	0.000046	<0.00050	<0.00050			0.0023	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2023-12-08	MTWATR122023JS1-009									
SW-GL	Flett	2023-12-08	TMWATR121923ZB1-008									
SW-GL	Flett	2023-12-08	MTWATR122023JS1-008									
SW-GL	ALS	2023-12-08	WP2332240-003									
SW-GL	ALS	2024-01-16	WP2401461	0.00004	<0.00050	<0.00050			0.0131	0.0162	<0.00030	<0.00020
SW-GL	Flett	2024-01-16	MTWATR020924JS1-006									
SW-GL	ALS	2024-01-16	WP2401461-001									
SW-GL	ALS	2024-01-24	WP2401958	0.000058	<0.00050	<0.00050			0.0031	0.004	<0.00030	<0.00020
SW-GL	Flett	2024-01-24	TMWATR013124JS1-004									
SW-GL	Flett	2024-01-24	TMWATR013124JS1-003									
SW-GL	ALS	2024-01-24	WP2401958-002									
SW-GL	ALS	2024-02-06	WP2403186	0.000036	<0.00050	<0.00050			0.0015	0.0047	<0.00030	<0.00020
SW-GL	Flett	2024-02-06	TMWATR022824CH1-015									
SW-GL	Flett	2024-02-06	MTWATR030824JS1-015									
SW-GL	ALS	2024-02-06	WP2403186-001									
SW-GL	ALS	2024-03-01	WP2405262-001									
SW-GL	ALS	2024-03-01	WP2405262	0.00004	<0.00050	<0.00050			0.0025	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2024-03-01	TMWATR032024CH1-002									
SW-GL	Flett	2024-03-01	MTWATR032124JS1-003									
SW-GL	ALS	2024-04-02	WP2407730	0.000037	<0.00050	<0.00050			0.0025	<0.0030	<0.00030	<0.00020
SW-GL	ALS	2024-04-02	WP2407730-001									
SW-GL	Flett	2024-04-03	TMWATR042224CH1-005									
SW-GL	Flett	2024-04-03	MTWATR041624JS1-005									
SW-GL	ALS	2024-05-27	WP2413499	0.000036	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2024-05-27	TMWATR061924CH1-018									
SW-GL	Flett	2024-05-27	MTWATR061024JS1-017									
SW-GL	ALS	2024-06-20	WP2415789	0.00004	<0.00050	<0.00050			<0.0010	<0.003	<0.00030	<0.00020

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Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1											
SW-GL	ALS	2024-07-08	WP2417173	7.6	7.52	21.7	<2.0	31.2	<1.0	<1.0	<1.0	31.2	0.0134	0.0168
SW-GL	Flett	2024-07-08	TMWATR072524CH2											
SW-GL	Flett	2024-07-08	MTWATR072424JS2											
SW-GL	ALS	2024-08-11	WP2419573	7.27	7.57	21	<2.0	31.3	<1.0	<1.0	<1.0	31.3	0.0068	0.0149
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008											
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004											
SW-GL	ALS	2024-09-07	WP2421728	6.83	7.52	15.1	4.2	31.7	<1.0	<1.0	<1.0	31.7	0.0029	0.0098
SW-GL	ALS	2024-09-07	WP2421728	6.83	7.51	15.1	3.5	31.7	<1.0	<1.0	<1.0	31.7	0.0038	0.0109
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006											
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007											
SW-GL	ALS	2024-10-10	WP2424082	7.31	7.52	9.45	<2.0	32.6	<1.0	<1.0	<1.0	32.6	0.0029	0.0113
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013											
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012											
SW-GL	ALS	2024-11-03	WP2425500	7.41	7.59	3.62	<2.0	33.1	<1.0	<1.0	<1.0	33.1	0.0019	0.0256
SW-GL	ALS	2024-11-03	WP2425500	7.41	7.62	3.62	<2.0	33.6	<1.0	<1.0	<1.0	33.6	0.0021	0.017
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003											
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002											
SW-GL	ALS	2024-12-02	WP2426974	7.25	7.28	0.1	3.2	28	<1.0	<1.0	<1.0	28	0.0367	0.0378
SW-GL	ALS	2024-12-02	WP2426974	7.25	7.14	0.1	3.3	25.6	<1.0	<1.0	<1.0	25.6	0.0333	0.0416
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002											
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002											
SW-GL02	SGS	2022-06-16	CA14382-JUN22		6.94		< 2					26		0.307
SW-GL02	SGS	2022-06-16	CA14382-JUN22		6.92		< 2					26		0.282
SW-GL02	SGS	2022-07-28		6.56	6.86	19.5	< 2					32		0.188
SW-GL02	SGS	2022-08-09	CA15226-AUG22	7.22	7.14	14	< 2					54	0.107	0.114
SW-GL02	SGS	2022-09-20	CA13964-SEP22	6.67	7.07	12	< 2					51		0.034
SW-GL02	SGS	2022-10-12	CA15286-OCT22	6.33	7.28	6.6	< 2					50		0.022
SW-GL02	SGS	2023-02-15	CA15347-FEB23	6.73	7.55	1.34	< 2					40	0.012	0.017
SW-GL02	SGS	2023-03-30	CA15003-APR23	6.88	7.26	1.47	< 2					46	0.007	0.014
SW-GL02	SGS	2023-04-10	CA15222-APR23	6.35	7.39	6.28	< 2					46	0.012	0.063
SW-GL02	ALS	2023-05-14	WP2308112											
SW-GL02	ALS	2023-05-14	WP2308112	6.96	7.44	8.07	16.1	31	<1.0	<1.0	<1.0	31	0.0621	0.0669
SW-GL02	ALS	2023-05-14	WP2308112-006											
SW-GL02	ALS	2023-08-11	WP2319515-005	7.06	7.19	11	10.3	56.3	<1.0	<1.0	<1.0	56.3	0.0268	0.0335
SW-GL02	ALS	2023-10-14	WP2326559-001	6.39	7.29	6.2	6.2	51.3	<1.0	<1.0	<1.0	51.3	0.0225	0.026
SW-GL02	ALS	2024-02-06	WP2403186	6.98	6.77	0.5	15.8	49.3	<1.0	<1.0	<1.0	49.3	0.0705	0.0135
SW-GL02	ALS	2024-02-06	WP2403186-003											
SW-GL02	ALS	2024-05-23	WP2413138	5.99	6.99	6	3.2	19.3	<1.0	<1.0	<1.0	19.3	0.222	0.254
SW-GL02	ALS	2024-06-19	WP2415611	5.78	6.67	13.2	4.4	14.5	<1.0	<1.0	<1.0	14.5	0.508	0.591
SW-GL02	ALS	2024-07-10	WP2417255	6.26	7.36	14.4	5.6	31.6	<1.0	<1.0	<1.0	31.6	0.296	0.319
SW-GL02	ALS	2024-08-04	WP2419020											
SW-GL02	ALS	2024-08-04	WP2419020	6.56	7.81	10.9	<2.0	60.7	<1.0	<1.0	<1.0	60.7	0.0641	0.0887
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002											
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001											
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001											
SW-GL02	ALS	2024-09-04	WP2421413	7.1	7.68	9.53	<2.0	62.5	<1.0	<1.0	<1.0	62.5	0.052	0.0646
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011											
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009											
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010											
SW-GL02	ALS	2024-10-05	WP2423572	7.31	7.77	8.6	4.1	57.8	<1.0	<1.0	<1.0	57.8	0.0806	0.0973
SW-GL02	ALS	2024-10-05	WP2423572	7.31	7.78	8.6	4.2	58.2	<1.0	<1.0	<1.0	58.2	0.0775	0.105

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1												
SW-GL	ALS	2024-07-08	WP2417173			<0.0010	0.0156	<0.00010	<0.00010	0.00144	0.00152	0.00686	0.00678	<0.000020	<0.000020
SW-GL	Flett	2024-07-08	TMWATR072524CH2												
SW-GL	Flett	2024-07-08	MTWATR072424JS2												
SW-GL	ALS	2024-08-11	WP2419573			<0.0010	<0.0050	<0.00010	<0.00010	0.0018	0.002	0.00709	0.00768	<0.000020	<0.000020
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008												
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004												
SW-GL	ALS	2024-09-07	WP2421728			<0.0010	0.005	<0.00010	<0.00010	0.0019	0.00269	0.00709	0.00827	<0.000020	<0.000020
SW-GL	ALS	2024-09-07	WP2421728			<0.0010	<0.0050	<0.00010	<0.00010	0.00206	0.00269	0.00734	0.00813	<0.000020	<0.000020
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006												
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007												
SW-GL	ALS	2024-10-10	WP2424082			<0.0010	0.0235	<0.00010	<0.00010	0.00213	0.00273	0.00666	0.0076	<0.000020	<0.000020
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013												
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012												
SW-GL	ALS	2024-11-03	WP2425500			<0.0010	0.0253	<0.00010	<0.00010	0.00157	0.00206	0.00683	0.00751	<0.000020	<0.000020
SW-GL	ALS	2024-11-03	WP2425500			<0.0010	0.0055	<0.00010	<0.00010	0.0016	0.00202	0.00694	0.00761	<0.000020	<0.000020
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003												
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002												
SW-GL	ALS	2024-12-02	WP2426974			<0.0010	0.0111	<0.00010	<0.00010	0.00166	0.0012	0.00687	0.00497	<0.000020	<0.000020
SW-GL	ALS	2024-12-02	WP2426974			<0.0010	0.016	<0.00010	<0.00010	0.0016	0.00124	0.00698	0.00551	<0.000020	<0.000020
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002												
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002												
SW-GL02	SGS	2022-06-16	CA14382-JUN22	0.218			< 0.1	< 0.0009	< 0.0009	0.0028	0.0031	0.0094	0.012	0.000022	0.000022
SW-GL02	SGS	2022-06-16	CA14382-JUN22	0.215			< 0.1	< 0.0009	< 0.0009	0.0026	0.0032	0.00893	0.0106	0.000018	0.000016
SW-GL02	SGS	2022-07-28		0.173			< 0.1	< 0.0009	< 0.0009	0.0026	0.0031	0.0105	0.0116	< 0.000007	< 0.000007
SW-GL02	SGS	2022-08-09	CA15226-AUG22	0.072			< 0.1	< 0.0009	< 0.0009	0.0034	0.0032	0.0159	0.0165	0.000009	0.000011
SW-GL02	SGS	2022-09-20	CA13964-SEP22	0.026			< 0.1	< 0.0009	< 0.0009	0.0027	0.0024	0.0156	0.0157	< 0.000007	< 0.000007
SW-GL02	SGS	2022-10-12	CA15286-OCT22	0.015			< 0.1	< 0.0009	< 0.0009	0.0011	0.0015	0.0117	0.0124	< 0.000007	< 0.000007
SW-GL02	SGS	2023-02-15	CA15347-FEB23	0.011			< 0.1	< 0.0009	< 0.0009	0.0005	0.0005	0.00864	0.00908	< 0.000007	< 0.000007
SW-GL02	SGS	2023-03-30	CA15003-APR23	0.008			< 0.1	< 0.0009	< 0.0009	0.0007	0.0004	0.0118	0.0122	< 0.000007	0.000017
SW-GL02	SGS	2023-04-10	CA15222-APR23	0.012			< 0.1	< 0.0009	< 0.0009	0.0009	0.0011	0.0158	0.0173	< 0.000007	< 0.000007
SW-GL02	ALS	2023-05-14	WP2308112												
SW-GL02	ALS	2023-05-14	WP2308112			<0.0010	0.011	<0.00010	<0.00010	0.00118	0.00118	0.00959	0.00918	<0.000020	<0.000020
SW-GL02	ALS	2023-05-14	WP2308112-006		0.011										
SW-GL02	ALS	2023-08-11	WP2319515-005		<0.010	<0.0010		<0.00010	<0.00010	0.00157	0.00186	0.0157	0.0146	<0.000020	<0.000020
SW-GL02	ALS	2023-10-14	WP2326559-001		<0.0050	<0.0010		<0.00010	<0.00010	0.00166	0.00169	0.0133	0.0132	<0.000020	<0.000020
SW-GL02	ALS	2024-02-06	WP2403186			<0.0010	0.0961	<0.00010	<0.00010	0.00141	0.00073	0.0162	0.0131	<0.000020	<0.000020
SW-GL02	ALS	2024-02-06	WP2403186-003		0.0961										
SW-GL02	ALS	2024-05-23	WP2413138			<0.0010	0.0087	0.00014	0.00014	0.0026	0.00254	0.00795	0.00796	<0.000020	<0.000020
SW-GL02	ALS	2024-06-19	WP2415611			<0.0010	0.029	0.00015	0.00015	0.00422	0.00467	0.0103	0.0113	0.000034	0.000035
SW-GL02	ALS	2024-07-10	WP2417255			<0.0010	0.0554	0.00011	0.0001	0.00564	0.00574	0.0106	0.0105	0.000024	0.000032
SW-GL02	ALS	2024-08-04	WP2419020												
SW-GL02	ALS	2024-08-04	WP2419020			<0.0010	0.0342	<0.00010	<0.00010	0.00351	0.00368	0.00802	0.0085	<0.000020	<0.000020
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002												
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001												
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001												
SW-GL02	ALS	2024-09-04	WP2421413			<0.0010	0.0221	<0.00010	<0.00010	0.00292	0.00301	0.00851	0.00896	<0.000020	<0.000020
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011												
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009												
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010												
SW-GL02	ALS	2024-10-05	WP2423572			<0.0010	0.0103	<0.00010	<0.00010	0.00299	0.00308	0.00875	0.00941	<0.000020	<0.000020
SW-GL02	ALS	2024-10-05	WP2423572			<0.0010	0.011	<0.00010	<0.00010	0.00291	0.00309	0.00881	0.00944	<0.000020	<0.000020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1													
SW-GL	ALS	2024-07-08	WP2417173	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.3	8.81	11.2	<0.000010	<0.000010		0.16
SW-GL	Flett	2024-07-08	TMWATR072524CH2													
SW-GL	Flett	2024-07-08	MTWATR072424JS2													
SW-GL	ALS	2024-08-11	WP2419573	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.83	9.35	11.2	<0.000010	<0.000010		0.18
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008													
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004													
SW-GL	ALS	2024-09-07	WP2421728	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.79	9.28	12.1	<0.000010	<0.000010		0.18
SW-GL	ALS	2024-09-07	WP2421728	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.61	9.36	13.4	<0.000010	<0.000010		0.18
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006													
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007													
SW-GL	ALS	2024-10-10	WP2424082	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.08	9.38	10.9	<0.000010	<0.000010		0.19
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013													
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012													
SW-GL	ALS	2024-11-03	WP2425500	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.33	9.53	10.1	<0.000010	<0.000010		0.2
SW-GL	ALS	2024-11-03	WP2425500	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.2	9.23	10.7	<0.000010	<0.000010		0.22
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003													
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002													
SW-GL	ALS	2024-12-02	WP2426974	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.46	5.71	16.8	<0.000010	<0.000010		0.25
SW-GL	ALS	2024-12-02	WP2426974	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.57	7.87	18.7	<0.000010	<0.000010		0.23
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002													
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002													
SW-GL02	SGS	2022-06-16	CA14382-JUN22	< 0.00001	< 0.00001	0.005	0.006	0.000005	0.000009	10.2	10.8	28			19	3
SW-GL02	SGS	2022-06-16	CA14382-JUN22	< 0.00001	< 0.00001	0.005	0.006	0.000005	0.00001	9.86	10.7	29			11	6
SW-GL02	SGS	2022-07-28		< 0.00001	< 0.00001	0.006	0.007	0.00001	< 0.000003	9.87	10.4	29			63	31
SW-GL02	SGS	2022-08-09	CA15226-AUG22	< 0.00001	< 0.00001	0.004	0.005	0.000006	0.000004	16.5	17.2	17			41	26
SW-GL02	SGS	2022-09-20	CA13964-SEP22	< 0.00001	< 0.00001	0.005	0.004	< 0.000004	0.000007	18.5	17.9	8			30	37
SW-GL02	SGS	2022-10-12	CA15286-OCT22	< 0.00001	< 0.00001	0.003	0.005	< 0.000004	0.000007	14.3	14.7	7			17	38
SW-GL02	SGS	2023-02-15	CA15347-FEB23	< 0.00001	0.00006	0.004	0.005	0.000011	0.000004	14	15.1	4			14	38
SW-GL02	SGS	2023-03-30	CA15003-APR23	< 0.00001	< 0.00001	0.004	0.005	0.000019	0.000016	18	18.2	3			13	55
SW-GL02	SGS	2023-04-10	CA15222-APR23	< 0.00001	< 0.00001	0.005	0.006	< 0.000004	0.000004	20.5	21.2	6			24	90
SW-GL02	ALS	2023-05-14	WP2308112													
SW-GL02	ALS	2023-05-14	WP2308112	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.6	11	14.4	0.000034	0.00004		26.7
SW-GL02	ALS	2023-05-14	WP2308112-006													
SW-GL02	ALS	2023-08-11	WP2319515-005	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	18.8	18.4	11.7	0.000058	0.00006		41.8
SW-GL02	ALS	2023-10-14	WP2326559-001	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	16.9	18.5	10.2	0.000054	0.000056		43.5
SW-GL02	ALS	2024-02-06	WP2403186	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	17.3	17.6	6.53	0.000054	0.00005		65
SW-GL02	ALS	2024-02-06	WP2403186-003													
SW-GL02	ALS	2024-05-23	WP2413138	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.25	8.9	38.5	0.000015	0.000016		11.6
SW-GL02	ALS	2024-06-19	WP2415611	<0.000050	<0.000050	<0.010	<0.010	0.0000114	0.0000133	8.89	9.08	47.5	<0.000010	0.000014		<0.10
SW-GL02	ALS	2024-07-10	WP2417255	<0.000050	<0.000050	<0.010	<0.010	0.0000113	<0.0000050	12.9	12.2	44.2	<0.000010	0.000011		0.18
SW-GL02	ALS	2024-08-04	WP2419020													
SW-GL02	ALS	2024-08-04	WP2419020	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	19	19.5	20.8	<0.000010	<0.000010		0.42
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002													
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001													
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001													
SW-GL02	ALS	2024-09-04	WP2421413	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	19.3	19	16.6	0.000012	0.000015		0.54
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011													
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009													
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010													
SW-GL02	ALS	2024-10-05	WP2423572	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	0.0000088	16.9	18	20.7	0.000013	0.000016		0.51
SW-GL02	ALS	2024-10-05	WP2423572	<0.000050	<0.000050	<0.010	<0.010	0.000005	0.0000083	17	18	20.5	0.000013	0.000019		0.51

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Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1													
SW-GL	ALS	2024-07-08	WP2417173	<0.00010	<0.00010	<0.00010	<0.00010	64.1	0.00022	<0.00050	0.0014	<0.0010		<0.0010		
SW-GL	Flett	2024-07-08	TMWATR072524CH2													
SW-GL	Flett	2024-07-08	MTWATR072424JS2													
SW-GL	ALS	2024-08-11	WP2419573	<0.00010	<0.00010	<0.00010	<0.00010	65.3	0.00082	<0.00050	0.001	<0.0010		<0.0010		
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008													
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004													
SW-GL	ALS	2024-09-07	WP2421728	<0.00010	<0.00010	<0.00010	<0.00010	66.7	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	ALS	2024-09-07	WP2421728	<0.00010	<0.00010	<0.00010	<0.00010	66.8	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006													
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007													
SW-GL	ALS	2024-10-10	WP2424082	<0.00010	<0.00010	<0.00010	<0.00010	68	0.00022	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013													
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012													
SW-GL	ALS	2024-11-03	WP2425500	<0.00010	0.00012	<0.00010	<0.00010	66.9	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	ALS	2024-11-03	WP2425500	<0.00010	<0.00010	<0.00010	<0.00010	67.8	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003													
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002													
SW-GL	ALS	2024-12-02	WP2426974	0.00092	0.00012	<0.00010	<0.00010	61.6	0.00455	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL	ALS	2024-12-02	WP2426974	0.00077	0.00018	<0.00010	<0.00010	58.2	0.00447	0.0005	<0.0010	<0.0010		<0.0010		
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002													
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002													
SW-GL02	SGS	2022-06-16	CA14382-JUN22	0.00059	0.00091	0.000085	0.000341	63	0.0015	0.0017			< 0.01			0.07
SW-GL02	SGS	2022-06-16	CA14382-JUN22	0.00064	0.0008	0.000094	0.000361	70	0.0014	0.0016			< 0.01			0.07
SW-GL02	SGS	2022-07-28		0.00072	0.00113	0.000102	0.000332	147	0.0011	0.0009			< 0.01			0.14
SW-GL02	SGS	2022-08-09	CA15226-AUG22	0.0007	0.00105	0.000659	0.000687	154	0.0005	0.0007			< 0.01			0.15
SW-GL02	SGS	2022-09-20	CA13964-SEP22	0.00031	0.0005	0.00063	0.000625	194	0.0003	0.0005			< 0.01			0.15
SW-GL02	SGS	2022-10-12	CA15286-OCT22	< 0.00008	0.00014	0.000074	0.000289	188	0.0003	0.0003			< 0.01			0.18
SW-GL02	SGS	2023-02-15	CA15347-FEB23	< 0.00008	0.00022	0.000037	0.00006	195	0.0004	0.0006	< 0.005		< 0.01			0.14
SW-GL02	SGS	2023-03-30	CA15003-APR23	0.00023	0.00044	0.000071	0.00008	237	0.0005	0.0004	< 0.005		< 0.01			0.13
SW-GL02	SGS	2023-04-10	CA15222-APR23	0.00014	0.00028	0.000271	0.000539	377	0.0004	0.0005	< 0.005		< 0.01			0.11
SW-GL02	ALS	2023-05-14	WP2308112	0.00024	0.00023											
SW-GL02	ALS	2023-05-14	WP2308112	<0.00050	<0.00050	<0.00010	<0.00010	166	0.00048	0.00052	<0.0010	<0.0010		0.0014		
SW-GL02	ALS	2023-05-14	WP2308112-006	0.00024	0.00023											
SW-GL02	ALS	2023-08-11	WP2319515-005	0.00016	0.00205	0.00027	0.0003	252	0.00027	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL02	ALS	2023-10-14	WP2326559-001	0.00014	0.00015	0.00042	0.00039	233	0.00028	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL02	ALS	2024-02-06	WP2403186	<0.00050	<0.00050	0.00045	0.00029	308	0.00088	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL02	ALS	2024-02-06	WP2403186-003	0.00019	0.00011											
SW-GL02	ALS	2024-05-23	WP2413138	0.0007	0.00084	0.00017	0.0002	86	0.00137	0.00149	0.0019	<0.0010		<0.0010		
SW-GL02	ALS	2024-06-19	WP2415611	0.00118	0.00134	0.00037	0.00047	45.4	0.00206	0.00281	0.0014	0.0016		0.0015		
SW-GL02	ALS	2024-07-10	WP2417255	0.00115	0.00112	0.00046	0.00047	74.1	0.00132	0.00122	0.0011	0.0017		0.0012		
SW-GL02	ALS	2024-08-04	WP2419020	0.00052	0.00058											
SW-GL02	ALS	2024-08-04	WP2419020	0.00052	0.00058	0.00017	0.00022	126	0.00056	0.00061	0.0016	0.0012		0.0014		
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002													
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001													
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001													
SW-GL02	ALS	2024-09-04	WP2421413	0.00046	0.00051	0.00013	0.00015	128	0.00043	<0.00050	<0.0010	0.0011		<0.0010		
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011													
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009													
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010													
SW-GL02	ALS	2024-10-05	WP2423572	0.00057	0.00053	0.00014	0.00026	119	0.00048	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL02	ALS	2024-10-05	WP2423572	0.00057	0.00056	0.00015	0.00029	119	0.00044	<0.00050	<0.0010	<0.0010		<0.0010		

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Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1												
SW-GL	ALS	2024-07-08	WP2417173	32.9	30.8	0.042	0.072	<0.000050	<0.000050	0.0012	<0.0010	2.36	2.14	0.00258	0.00984
SW-GL	Flett	2024-07-08	TMWATR072524CH2												
SW-GL	Flett	2024-07-08	MTWATR072424JS2												
SW-GL	ALS	2024-08-11	WP2419573	31.2	32.6	0.028	0.078	<0.000050	<0.000050	<0.0010	0.0011	2.23	2.26	0.00091	0.0301
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008												
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004												
SW-GL	ALS	2024-09-07	WP2421728	34.1	32.1	0.035	0.157	<0.000050	<0.000050	0.0016	0.0012	2.35	2.17	0.00092	0.0394
SW-GL	ALS	2024-09-07	WP2421728	33.5	32.1	0.073	0.157	<0.000050	<0.000050	0.0015	0.0012	2.3	2.12	0.0124	0.0392
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006												
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007												
SW-GL	ALS	2024-10-10	WP2424082	31.9	33	0.125	0.25	<0.000050	<0.000050	0.0016	<0.0010	2.24	2.32	0.00196	0.0225
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013												
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012												
SW-GL	ALS	2024-11-03	WP2425500	32.5	33.1	0.07	0.203	<0.000050	<0.000050	0.0014	0.0013	2.24	2.26	0.00469	0.0173
SW-GL	ALS	2024-11-03	WP2425500	32	32.1	0.07	0.199	<0.000050	<0.000050	0.0013	0.0012	2.19	2.21	0.00467	0.0172
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003												
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002												
SW-GL	ALS	2024-12-02	WP2426974	29.5	19.7	0.191	0.17	<0.000050	<0.000050	0.0019	<0.0010	2.03	1.32	0.0073	0.00714
SW-GL	ALS	2024-12-02	WP2426974	29.4	25.3	0.189	0.184	<0.000050	0.000053	0.0012	<0.0010	1.94	1.37	0.00725	0.00784
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002												
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002												
SW-GL02	SGS	2022-06-16	CA14382-JUN22	35	36.7	0.555	0.921	< 0.00009	0.00011	0.0014	0.0015	2.31	2.37	0.00185	0.043
SW-GL02	SGS	2022-06-16	CA14382-JUN22	33.6	36.4	0.561	0.938	< 0.00009	0.0001	0.0014	0.0015	2.17	2.36	0.00237	0.0482
SW-GL02	SGS	2022-07-28		32.4	34	0.669	1.2	< 0.00009	< 0.00009			1.9	1.97	0.00578	0.0542
SW-GL02	SGS	2022-08-09	CA15226-AUG22	56	58.3	1.63	1.68	0.00014	0.00025			3.57	3.76	0.11	0.113
SW-GL02	SGS	2022-09-20	CA13964-SEP22	61.8	59.7	1.53	1.52	< 0.00009	0.00011			3.8	3.65	0.168	0.163
SW-GL02	SGS	2022-10-12	CA15286-OCT22	46.7	48.1	0.417	0.93	< 0.00009	< 0.00009			2.67	2.79	0.0379	0.0837
SW-GL02	SGS	2023-02-15	CA15347-FEB23	46.9	51	0.042	0.278	< 0.00009	< 0.00009			2.91	3.22	0.00398	0.0102
SW-GL02	SGS	2023-03-30	CA15003-APR23	60.9	61.3	0.088	0.186	< 0.00009	< 0.00009			3.89	3.87	0.01086	0.0148
SW-GL02	SGS	2023-04-10	CA15222-APR23	69.7	72.3	1.04	1.91	< 0.00009	< 0.00009			4.52	4.7	0.114	0.155
SW-GL02	ALS	2023-05-14	WP2308112												
SW-GL02	ALS	2023-05-14	WP2308112	36.8	37.7	0.214	0.256	<0.000050	<0.000050	0.0021	0.0021	2.52	2.48	0.0136	0.013
SW-GL02	ALS	2023-05-14	WP2308112-006												
SW-GL02	ALS	2023-08-11	WP2319515-005	63.7	63.9	0.63	1.16	<0.000050	<0.000050	0.0028	0.003	4.08	4.37	0.069	0.0713
SW-GL02	ALS	2023-10-14	WP2326559-001	59.7	63	0.786	0.992	<0.000050	<0.000050	0.0013	0.0021	4.26	4.09	0.119	0.116
SW-GL02	ALS	2024-02-06	WP2403186	60.7	60.7	2.69	1.29	0.000092	<0.000050	0.0023	0.0029	4.26	4.08	0.13	0.0922
SW-GL02	ALS	2024-02-06	WP2403186-003												
SW-GL02	ALS	2024-05-23	WP2413138	30.7	31	0.651	0.782	0.000063	0.000073	0.0015	0.0013	1.85	2.12	0.0127	0.0143
SW-GL02	ALS	2024-06-19	WP2415611	30.1	31.7	1.2	1.55	0.000095	0.00015	0.002	0.0016	1.91	2.19	0.034	0.0426
SW-GL02	ALS	2024-07-10	WP2417255	44.4	42.2	2.24	2.38	0.000083	0.00008	0.0016	0.0017	2.97	2.84	0.0377	0.0416
SW-GL02	ALS	2024-08-04	WP2419020												
SW-GL02	ALS	2024-08-04	WP2419020	63.2	66	1.26	1.57	0.000063	0.000056	0.0027	0.0031	3.82	4.2	0.0187	0.0236
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002												
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001												
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001												
SW-GL02	ALS	2024-09-04	WP2421413	65.3	63.8	0.949	1.04	<0.000050	<0.000050	0.0024	0.0023	4.16	3.97	0.0167	0.0192
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011												
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009												
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010												
SW-GL02	ALS	2024-10-05	WP2423572	58.8	60.8	1.06	1.2	<0.000050	<0.000050	0.002	0.0036	4.02	3.85	0.0179	0.0606
SW-GL02	ALS	2024-10-05	WP2423572	59.6	60.7	1.07	1.22	<0.000050	<0.000050	0.002	0.0035	4.16	3.83	0.018	0.0633

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1				0.91								
SW-GL	ALS	2024-07-08	WP2417173	<0.0000050		<0.0000050		0.000081	0.000106	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	Flett	2024-07-08	TMWATR072524CH2				1.15								
SW-GL	Flett	2024-07-08	MTWATR072424JS2		0.017										
SW-GL	ALS	2024-08-11	WP2419573	<0.0000050		<0.0000050		0.000111	0.000094	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008				0.65								
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004		0.019										
SW-GL	ALS	2024-09-07	WP2421728	<0.0000050		<0.0000050		0.000094	0.000117	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.03
SW-GL	ALS	2024-09-07	WP2421728	<0.0000050		<0.0000050		0.000119	0.000125	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.03
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006				0.54								
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007		0.028										
SW-GL	ALS	2024-10-10	WP2424082	<0.0000050		<0.0000050		0.00011	0.000107	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013				0.53								
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012		0.03										
SW-GL	ALS	2024-11-03	WP2425500	<0.0000050		<0.0000050		0.000073	0.0001	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-GL	ALS	2024-11-03	WP2425500	<0.0000050		<0.0000050		0.000082	0.000118	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003		0.03										
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002				0.56								
SW-GL	ALS	2024-12-02	WP2426974	<0.0000050		<0.0000050		0.000147	0.000068	0.00522	<0.00050	0.0292	0.0292	<0.0010	<0.030
SW-GL	ALS	2024-12-02	WP2426974	<0.0000050		<0.0000050		0.000154	0.000092	0.00418	<0.00050	0.0341	0.0341	<0.0010	<0.030
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002				1.47								
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002		0.057										
SW-GL02	SGS	2022-06-16	CA14382-JUN22	< 0.00001		< 0.00001		0.0002	0.00022	0.0013	0.0014	0.14	0.14	< 0.03	
SW-GL02	SGS	2022-06-16	CA14382-JUN22	< 0.00001		< 0.00001		0.00025	0.00022	0.0008	0.0011	< 0.06	< 0.06	< 0.03	
SW-GL02	SGS	2022-07-28				< 0.00001		0.00044	0.00051	0.0006	0.0007	< 0.06	< 0.06	< 0.03	
SW-GL02	SGS	2022-08-09	CA15226-AUG22			< 0.00001		0.00062	0.00078	0.0008	0.0008	< 0.06	< 0.06	< 0.03	
SW-GL02	SGS	2022-09-20	CA13964-SEP22			< 0.00001		0.00047	0.00048	0.0004	0.0005	< 0.06	< 0.06	< 0.03	
SW-GL02	SGS	2022-10-12	CA15286-OCT22			< 0.00001		0.00051	0.00048	0.0002	0.0003	0.08	0.08	< 0.03	
SW-GL02	SGS	2023-02-15	CA15347-FEB23	0.00002		0.00002		0.00045	0.00049	0.0002	0.0002	0.31	0.31	< 0.03	
SW-GL02	SGS	2023-03-30	CA15003-APR23	< 0.00001		< 0.00001		0.0011	0.00054	0.0003	0.0002	0.17	0.17	< 0.03	
SW-GL02	SGS	2023-04-10	CA15222-APR23	< 0.00002		< 0.00002		0.00039	0.0004	0.0003	0.0003	0.13	0.13	< 0.03	
SW-GL02	ALS	2023-05-14	WP2308112												
SW-GL02	ALS	2023-05-14	WP2308112	<0.0000050		<0.0000050		0.000372	0.000404	<0.00050	<0.00050	0.0312	0.0312	<0.0010	
SW-GL02	ALS	2023-05-14	WP2308112-006												
SW-GL02	ALS	2023-08-11	WP2319515-005	<0.0000050		<0.0000050		0.000512	0.000617	<0.00050	<0.00050	0.0081	0.0081	<0.0010	
SW-GL02	ALS	2023-10-14	WP2326559-001	<0.0000050		<0.0000050		0.000505	0.000462	<0.00050	<0.00050	0.0535	0.0535	<0.0010	
SW-GL02	ALS	2024-02-06	WP2403186	<0.0000050		<0.0000050		0.000392	0.000442	<0.00050	<0.00050	0.164	0.164	<0.0010	
SW-GL02	ALS	2024-02-06	WP2403186-003												
SW-GL02	ALS	2024-05-23	WP2413138	<0.0000050		<0.0000050		0.000168	0.000165	0.00078	0.00085	0.0434	0.0434	<0.0010	
SW-GL02	ALS	2024-06-19	WP2415611	0.0000085		0.0000104		0.0001	0.000097	0.00151	0.00258	0.0431	0.0431	<0.0010	
SW-GL02	ALS	2024-07-10	WP2417255	<0.0000050		<0.0000050		0.0002	0.000198	0.0016	0.00139	0.106	0.109	0.0029	
SW-GL02	ALS	2024-08-04	WP2419020												
SW-GL02	ALS	2024-08-04	WP2419020	<0.0000050		<0.0000050		0.000307	0.000326	0.00061	0.00072	0.174	0.177	0.0028	0.032
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002				2.03								
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001				2.06								
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001		0.181										
SW-GL02	ALS	2024-09-04	WP2421413	<0.0000050		<0.0000050		0.000311	0.000308	0.00064	0.00064	0.133	0.135	0.0022	<0.030
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011		0.166										
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009				1.91								
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010		0.178										
SW-GL02	ALS	2024-10-05	WP2423572	<0.0000050		<0.0000050		0.000315	0.000274	0.00077	0.00074	0.0677	0.0677	<0.0010	<0.030
SW-GL02	ALS	2024-10-05	WP2423572	<0.0000050		<0.0000050		0.000272	0.00041	0.00081	0.00075	0.0662	0.0662	<0.0010	<0.030

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1												
SW-GL	ALS	2024-07-08	WP2417173	<0.030	<0.030	0.0107	<0.050	0.666	0.622		0.0018	0.0017	0.000082	0.000069	0.711
SW-GL	Flett	2024-07-08	TMWATR072524CH2												
SW-GL	Flett	2024-07-08	MTWATR072424JS2												
SW-GL	ALS	2024-08-11	WP2419573	<0.030	<0.030	0.0117	<0.050	0.645	0.668		0.00185	0.00187	0.000074	0.00006	0.733
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008												
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004												
SW-GL	ALS	2024-09-07	WP2421728	<0.050	<0.030	0.0182	<0.050	0.658	0.64		0.00177	0.00192	<0.000050	0.000068	1.03
SW-GL	ALS	2024-09-07	WP2421728	<0.050	<0.030	0.018	<0.050	0.667	0.636		0.00174	0.00184	<0.000050	<0.000050	1.06
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006												
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007												
SW-GL	ALS	2024-10-10	WP2424082		<0.030	0.0269		0.656	0.684		0.00171	0.00187	0.00006	0.000073	0.868
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013												
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012												
SW-GL	ALS	2024-11-03	WP2425500		<0.030	0.0215		0.721	0.704		0.00174	0.00197	<0.000050	0.000093	0.592
SW-GL	ALS	2024-11-03	WP2425500		<0.030	0.0207		0.721	0.699		0.00178	0.0018	<0.000050	0.000082	0.592
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003												
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002												
SW-GL	ALS	2024-12-02	WP2426974		<0.030	0.0309		0.527	0.364		0.00123	0.00089	<0.000050	<0.000050	1.8
SW-GL	ALS	2024-12-02	WP2426974		<0.030	0.0373		0.524	0.406		0.00138	0.0009	<0.000050	<0.000050	1.74
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002												
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002												
SW-GL02	SGS	2022-06-16	CA14382-JUN22	0.014			0.027	0.377	0.407				0.00011	0.00014	4.49
SW-GL02	SGS	2022-06-16	CA14382-JUN22	0.022			0.028	0.352	0.404				0.00012	0.00011	4.3
SW-GL02	SGS	2022-07-28		0.058			0.041	0.415	0.442				0.00012	0.00016	5.84
SW-GL02	SGS	2022-08-09	CA15226-AUG22	< 0.003			0.007	0.811	0.828				0.00009	0.00009	
SW-GL02	SGS	2022-09-20	CA13964-SEP22	0.003			0.014	1.28	1.31				0.00006	0.00007	7.18
SW-GL02	SGS	2022-10-12	CA15286-OCT22	0.005			0.009	0.869	0.903				< 0.00004	0.00006	5.64
SW-GL02	SGS	2023-02-15	CA15347-FEB23	0.01			0.007	1.14	1.24				0.00009	< 0.00004	6.9
SW-GL02	SGS	2023-03-30	CA15003-APR23	0.033			0.021	1.45	1.36				0.00075	< 0.00004	7.79
SW-GL02	SGS	2023-04-10	CA15222-APR23	0.01			0.021	1.51	1.55				< 0.00004	< 0.00004	7.21
SW-GL02	ALS	2023-05-14	WP2308112	<0.030											
SW-GL02	ALS	2023-05-14	WP2308112	<0.050	<0.030	0.0057	<0.050	0.948	1.05		0.00189	0.00174	0.000051	0.000075	5.53
SW-GL02	ALS	2023-05-14	WP2308112-006	<0.030			<0.030								
SW-GL02	ALS	2023-08-11	WP2319515-005	<0.030		0.0093	<0.030	1.05	1.15		0.002	0.00224	<0.000050	0.000074	7.87
SW-GL02	ALS	2023-10-14	WP2326559-001	<0.030		21.6	<0.030	1.52	1.38		0.00232	0.00235	0.000055	0.000076	8.42
SW-GL02	ALS	2024-02-06	WP2403186	<0.050	<0.030	0.0286	<0.050	1.24	1.21		0.00202	0.002	<0.000050	0.000054	7.67
SW-GL02	ALS	2024-02-06	WP2403186-003	<0.030			<0.03								
SW-GL02	ALS	2024-05-23	WP2413138	<0.030	<0.030	0.0221	<0.050	0.487	0.494		0.00146	0.00151	0.000201	0.000133	4.15
SW-GL02	ALS	2024-06-19	WP2415611	<0.030	0.042	0.0401	<0.05	0.225	0.24		0.00102	0.00122	0.000192	0.000163	4.28
SW-GL02	ALS	2024-07-10	WP2417255	0.034	0.052	0.0526	0.052	0.516	0.518		0.00213	0.00213	0.000062	0.0001	5.29
SW-GL02	ALS	2024-08-04	WP2419020												
SW-GL02	ALS	2024-08-04	WP2419020	<0.050	0.037	0.0368	<0.050	1.06	1.12		0.00209	0.00226	0.00009	0.000085	6.76
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002												
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001												
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001												
SW-GL02	ALS	2024-09-04	WP2421413	<0.050	<0.030	0.0332	<0.050	1.31	1.3		0.00342	0.00337	0.000093	0.000093	6.69
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011												
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009												
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010												
SW-GL02	ALS	2024-10-05	WP2423572		0.034	0.0268		1.2	1.06		0.00296	0.00306	0.00008	<0.000050	6.83
SW-GL02	ALS	2024-10-05	WP2423572		0.034	0.0348		1.22	1.06		0.00305	0.00288	0.000088	0.000053	6.81

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1													
SW-GL	ALS	2024-07-08	WP2417173	0.73	<0.000010	<0.000010	1.21	1.18	57.2	<1.0	0.0213	0.0208	<0.50	<0.50	0.63	<0.00020
SW-GL	Flett	2024-07-08	TMWATR072524CH2													
SW-GL	Flett	2024-07-08	MTWATR072424JS2													
SW-GL	ALS	2024-08-11	WP2419573	0.78	<0.000010	<0.000010	1.14	1.09	49.9	2	0.0201	0.0206	0.52	<0.50	0.54	<0.00020
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008													
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004													
SW-GL	ALS	2024-09-07	WP2421728	0.98	<0.000010	<0.000010	1.13	1.06	51.9	1.9	0.0215	0.0213	<0.50	<0.50	0.58	<0.00020
SW-GL	ALS	2024-09-07	WP2421728	0.96	<0.000010	<0.000010	1.15	1.04	50.6	1.7	0.0226	0.0213	<0.50	<0.50	0.62	<0.00020
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006													
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007													
SW-GL	ALS	2024-10-10	WP2424082	0.93	<0.000010	<0.000010	1.14	1.25	55.5	3.3	0.0202	0.0218	<0.50	<0.50	0.6	<0.00020
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013													
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012													
SW-GL	ALS	2024-11-03	WP2425500	0.72	<0.000010	<0.000010	1.19	1.3	39.2	3.2	0.0208	0.0208	<0.50	<0.50	0.64	<0.00020
SW-GL	ALS	2024-11-03	WP2425500	0.71	<0.000010	<0.000010	1.17	1.13	32.6	3.1	0.0208	0.0208	<0.50	<0.50	0.64	<0.00020
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003													
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002													
SW-GL	ALS	2024-12-02	WP2426974	1.17	<0.000010	<0.000010	1.2	1.6	43.6	3.1	0.0197	0.0144	0.55	<0.50	0.59	<0.00020
SW-GL	ALS	2024-12-02	WP2426974	1.25	<0.000010	<0.000010	1.09	1.57	37.1	3.3	0.0195	0.0225	0.51	<0.50	0.55	<0.00020
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002													
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002													
SW-GL02	SGS	2022-06-16	CA14382-JUN22	4.8	< 0.00005	< 0.00005	2.01	2.14	97	9	0.0279	0.0288		< 1	< 20	
SW-GL02	SGS	2022-06-16	CA14382-JUN22	4.72	< 0.00005	< 0.00005	2.1	3.52	114	5	0.0262	0.0291		< 1	< 20	
SW-GL02	SGS	2022-07-28		6.27	< 0.00005	< 0.00005	17.1	17.8	143	3	0.0327	0.034	3	3	< 20	
SW-GL02	SGS	2022-08-09	CA15226-AUG22		< 0.00005	< 0.00005	17.2	18.1	166	< 2	0.0522	0.0543			< 2	
SW-GL02	SGS	2022-09-20	CA13964-SEP22	7.25	< 0.00005	< 0.00005	18.7	18.7	134	6	0.0598	0.0575	1	1	< 2	
SW-GL02	SGS	2022-10-12	CA15286-OCT22	6.19	< 0.00005	< 0.00005	14.6	15	117	3	0.0485	0.0494	1	1	< 2	
SW-GL02	SGS	2023-02-15	CA15347-FEB23	7.69	< 0.00005	< 0.00005	17.6	19.3	97	< 2	0.0395	0.0432	1	1	< 2	
SW-GL02	SGS	2023-03-30	CA15003-APR23	8.74	< 0.00005	< 0.00005	28.4	28.5	140	3	0.0565	0.0553	2	1	5	
SW-GL02	SGS	2023-04-10	CA15222-APR23	7.63	< 0.00005	< 0.00005	47	48.6	220	5	0.0698	0.0717	2	2	5	
SW-GL02	ALS	2023-05-14	WP2308112													
SW-GL02	ALS	2023-05-14	WP2308112	5.88	<0.000010	<0.000010	16.7	17.1	111	<1.0	0.0316	0.0383	0.75	<0.50	2.12	<0.00020
SW-GL02	ALS	2023-05-14	WP2308112-006													
SW-GL02	ALS	2023-08-11	WP2319515-005	8.64	<0.000010	<0.000010	25.6	26.3	151	<1.0	0.0592	0.0647	0.7	0.87	1.3	<0.00020
SW-GL02	ALS	2023-10-14	WP2326559-001	7.94	<0.000010	<0.000010	26.7	24.8	154	<1.0	0.06	0.0572	1	<0.50	1.78	<0.00020
SW-GL02	ALS	2024-02-06	WP2403186	7.62	<0.000010	<0.000010	35.6	33.6	196	12.7	0.0559	0.0518	0.92	1.14	2.95	<0.00020
SW-GL02	ALS	2024-02-06	WP2403186-003													
SW-GL02	ALS	2024-05-23	WP2413138	4.29	<0.000010	<0.000010	7.21	7.16	128	<1.0	0.0265	0.0248	<0.50	0.51	1.18	<0.00020
SW-GL02	ALS	2024-06-19	WP2415611	4.56	<0.000010	<0.000010	1.26	1.34	93.6	8.3	0.0232	0.0232	<0.50	0.51	0.38	<0.00020
SW-GL02	ALS	2024-07-10	WP2417255	5.35	<0.000010	<0.000010	1.47	1.44	108	2.2	0.0338	0.032	<0.50	<0.50	0.44	<0.00020
SW-GL02	ALS	2024-08-04	WP2419020													
SW-GL02	ALS	2024-08-04	WP2419020	7.18	<0.000010	<0.000010	1.88	2.08	99.3	2.5	0.0419	0.0407	0.65	0.81	2.36	<0.00020
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002													
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001													
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001													
SW-GL02	ALS	2024-09-04	WP2421413	6.6	<0.000010	<0.000010	1.93	1.95	97.8	1.7	0.0422	0.0424	0.67	<0.50	1.56	<0.00020
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011													
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009													
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010													
SW-GL02	ALS	2024-10-05	WP2423572	6.9	<0.000010	<0.000010	1.91	1.7	102	5.6	0.0429	0.0427	0.51	0.55	1.22	<0.00020
SW-GL02	ALS	2024-10-05	WP2423572	6.86	<0.000010	<0.000010	2	1.76	98.5	4.4	0.0411	0.0436	0.55	0.55	1.23	<0.00020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1													
SW-GL	ALS	2024-07-08	WP2417173	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00038		<0.00010	<0.00010	0.00004
SW-GL	Flett	2024-07-08	TMWATR072524CH2													
SW-GL	Flett	2024-07-08	MTWATR072424JS2													
SW-GL	ALS	2024-08-11	WP2419573	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000036
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008													
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004													
SW-GL	ALS	2024-09-07	WP2421728	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000034
SW-GL	ALS	2024-09-07	WP2421728	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000032
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006													
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007													
SW-GL	ALS	2024-10-10	WP2424082	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.0003		<0.00010	<0.00010	0.000038
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013													
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012													
SW-GL	ALS	2024-11-03	WP2425500	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00078		<0.00010	<0.00010	0.000034
SW-GL	ALS	2024-11-03	WP2425500	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00044		<0.00010	<0.00010	0.000033
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003													
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002													
SW-GL	ALS	2024-12-02	WP2426974	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00064	0.0008		<0.00010	<0.00010	0.000035
SW-GL	ALS	2024-12-02	WP2426974	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00052	0.00082		<0.00010	<0.00010	0.000038
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002													
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002													
SW-GL02	SGS	2022-06-16	CA14382-JUN22		< 0.000005	0.000005			< 0.00006	0.00042			29	< 0.00002	0.00002	0.000112
SW-GL02	SGS	2022-06-16	CA14382-JUN22		0.000005	0.000006			< 0.00006	< 0.00006			30	0.00008	0.00003	0.000111
SW-GL02	SGS	2022-07-28			< 0.000005	< 0.000005			< 0.00006	0.00008	0.00285	0.00409	29	0.00004	< 0.00002	0.000326
SW-GL02	SGS	2022-08-09	CA15226-AUG22		0.000009	0.000007			< 0.00006	0.00021	0.00198	0.0019	16	< 0.00002	0.00004	0.000289
SW-GL02	SGS	2022-09-20	CA13964-SEP22		< 0.000005	0.000005			< 0.00006	0.00013	0.00148	0.00087	8	0.00003	0.00016	0.000141
SW-GL02	SGS	2022-10-12	CA15286-OCT22		0.000006	< 0.000005			< 0.00006	0.00053	0.00033	0.00068	6	0.00002	< 0.00002	0.000134
SW-GL02	SGS	2023-02-15	CA15347-FEB23		< 0.000005	< 0.000005			< 0.00006	0.0001	0.00027	0.00056	4	< 0.00002	0.00003	0.000109
SW-GL02	SGS	2023-03-30	CA15003-APR23		< 0.000005	< 0.000005			< 0.00006	0.00006	0.00022	0.00111	2	0.00002	0.00013	0.00012
SW-GL02	SGS	2023-04-10	CA15222-APR23		0.000005	< 0.000005			0.00024	0.00007	0.00032	0.00375	6	0.00006	0.00029	0.000083
SW-GL02	ALS	2023-05-14	WP2308112													
SW-GL02	ALS	2023-05-14	WP2308112	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00075	0.00087		<0.00010	<0.00010	0.00018
SW-GL02	ALS	2023-05-14	WP2308112-006													
SW-GL02	ALS	2023-08-11	WP2319515-005	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0004	0.00077		<0.00010	<0.00010	0.00017
SW-GL02	ALS	2023-10-14	WP2326559-001	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00032		<0.00010	<0.00010	0.00017
SW-GL02	ALS	2024-02-06	WP2403186	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00347	<0.00030		<0.00010	<0.00010	0.000214
SW-GL02	ALS	2024-02-06	WP2403186-003													
SW-GL02	ALS	2024-05-23	WP2413138	<0.00020	<0.000010	<0.000010	0.0002	0.00018	<0.00010	<0.00010	0.00416	0.00542		<0.00010	<0.00010	0.000164
SW-GL02	ALS	2024-06-19	WP2415611	<0.00020	<0.000010	<0.000010	0.00027	0.00025	<0.00010	<0.00010	0.00851	0.0129		<0.00010	<0.00010	0.00015
SW-GL02	ALS	2024-07-10	WP2417255	<0.00020	<0.000010	<0.000010	0.00022	0.00022	<0.00010	<0.00010	0.00826	0.00877		<0.00010	<0.00010	0.000184
SW-GL02	ALS	2024-08-04	WP2419020													
SW-GL02	ALS	2024-08-04	WP2419020	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00344	0.00459		<0.00010	<0.00010	0.000186
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002													
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001													
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001													
SW-GL02	ALS	2024-09-04	WP2421413	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00256	0.00343		<0.00010	<0.00010	0.00016
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011													
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009													
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010													
SW-GL02	ALS	2024-10-05	WP2423572	<0.00020	<0.000010	<0.000010	0.00012	<0.00010	<0.00010	<0.00010	0.00335	0.00368		<0.00010	<0.00010	0.000146
SW-GL02	ALS	2024-10-05	WP2423572	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.0031	0.00416		<0.00010	<0.00010	0.000144

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Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-GL	Flett	2024-06-20	TMWATR070224CH1									
SW-GL	ALS	2024-07-08	WP2417173	0.000037	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2024-07-08	TMWATR072524CH2									
SW-GL	Flett	2024-07-08	MTWATR072424JS2									
SW-GL	ALS	2024-08-11	WP2419573	0.000041	<0.00050	<0.00050			0.0011	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2024-08-11	TMWATR091224CH1-008									
SW-GL	Flett	2024-08-11	MTWATR091824JS1-004									
SW-GL	ALS	2024-09-07	WP2421728	0.00004	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	ALS	2024-09-07	WP2421728	0.000038	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2024-09-07	TMWATR092924CH1-006									
SW-GL	Flett	2024-09-07	MTWATR100124JS1-007									
SW-GL	ALS	2024-10-10	WP2424082	0.00004	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2024-10-10	TMWATR102824ZB1-013									
SW-GL	Flett	2024-10-10	MTWATR112724JS1-012									
SW-GL	ALS	2024-11-03	WP2425500	0.000042	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	ALS	2024-11-03	WP2425500	0.000041	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL	Flett	2024-11-03	MTWATR120424JS2-003									
SW-GL	Flett	2024-11-03	TMWATR112524CH1-002									
SW-GL	ALS	2024-12-02	WP2426974	0.00003	<0.00050	<0.00050			0.0012	<0.0030	<0.00030	0.00028
SW-GL	ALS	2024-12-02	WP2426974	0.000034	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	0.00052
SW-GL	Flett	2024-12-02	TMWATR012125CH1-002									
SW-GL	Flett	2024-12-02	MTWATR121924JS1-002									
SW-GL02	SGS	2022-06-16	CA14382-JUN22	0.000127	0.00067	0.00103	0.00057	0.00063	0.004	0.007	< 0.002	< 0.002
SW-GL02	SGS	2022-06-16	CA14382-JUN22	0.000123	0.00068	0.00099	0.00054	0.00066	< 0.002	0.002	< 0.002	< 0.002
SW-GL02	SGS	2022-07-28		0.000359	0.00047	0.00073	0.00055	0.00057	< 0.002	< 0.002	< 0.002	< 0.002
SW-GL02	SGS	2022-08-09	CA15226-AUG22	0.000327	0.00067	0.00075	0.00046	0.00048	< 0.002	< 0.002		
SW-GL02	SGS	2022-09-20	CA13964-SEP22	0.000147	0.00032	0.00034	0.00021	0.0002	< 0.002	0.004	< 0.002	< 0.002
SW-GL02	SGS	2022-10-12	CA15286-OCT22	0.000144	0.00011	0.00019	0.00013	0.00015	< 0.002	< 0.002	< 0.002	< 0.002
SW-GL02	SGS	2023-02-15	CA15347-FEB23	0.000128	0.00013	0.00018	0.00008	0.00011	0.005	0.017	< 0.002	< 0.002
SW-GL02	SGS	2023-03-30	CA15003-APR23	0.000132	0.00019	0.00015	0.00008	0.0001	< 0.002	< 0.002	< 0.002	< 0.002
SW-GL02	SGS	2023-04-10	CA15222-APR23	0.000114	0.00013	0.0003	0.0001	0.00013	< 0.002	0.002	< 0.002	< 0.002
SW-GL02	ALS	2023-05-14	WP2308112									
SW-GL02	ALS	2023-05-14	WP2308112	0.000186	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL02	ALS	2023-05-14	WP2308112-006									
SW-GL02	ALS	2023-08-11	WP2319515-005	0.000161	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL02	ALS	2023-10-14	WP2326559-001	0.000168	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL02	ALS	2024-02-06	WP2403186	0.000144	<0.00050	<0.00050			0.007	0.0058	<0.00030	<0.00020
SW-GL02	ALS	2024-02-06	WP2403186-003									
SW-GL02	ALS	2024-05-23	WP2413138	0.000156	0.00058	0.0008			0.0012	<0.0030	0.00058	0.00048
SW-GL02	ALS	2024-06-19	WP2415611	0.000163	0.00139	0.00184			0.0039	0.004	0.00081	0.00075
SW-GL02	ALS	2024-07-10	WP2417255	0.000173	0.00173	0.00199			0.0017	<0.0030	0.00073	0.00068
SW-GL02	ALS	2024-08-04	WP2419020									
SW-GL02	ALS	2024-08-04	WP2419020	0.000195	0.001	0.00121			<0.0010	<0.0030	<0.00030	0.00024
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-002									
SW-GL02	Flett	2024-08-04	TMWATR091124CH1-001									
SW-GL02	Flett	2024-08-04	MTWATR091624JS1-001									
SW-GL02	ALS	2024-09-04	WP2421413	0.00017	0.00077	0.00103			<0.0010	<0.0030	<0.00030	0.00022
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-011									
SW-GL02	Flett	2024-09-04	TMWATR092924CH1-009									
SW-GL02	Flett	2024-09-04	MTWATR100124JS1-010									
SW-GL02	ALS	2024-10-05	WP2423572	0.000159	0.00076	0.00098			<0.0010	<0.0030	0.00038	0.00027
SW-GL02	ALS	2024-10-05	WP2423572	0.000158	0.00076	0.001			<0.0010	<0.0030	0.00031	0.00026

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500	6.63	7.69	1.64	<2.0	47.5	<1.0	<1.0	<1.0	47.5	0.104	0.123
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001											
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003											
SW-GL02	ALS	2024-12-02	WP2426974	7.07	7	0	4.3	27.9	<1.0	<1.0	<1.0	27.9	0.274	0.312
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001											
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001											
SW-GL08	SGS	2022-11-07	CA15216-NOV22	6.83	7.42	1.7	< 2					37		0.013
SW-GL-B	ALS	2023-06-10	WP2311799-002	6.44	7.67	9.2	<2.0	34.6	<1.0	<1.0	<1.0	34.6	0.0028	0.0808
SW-GL-B	ALS	2023-07-17	WP2316174-004	7.84	7.68	18.5	<2.0	31.9	<1.0	<1.0	<1.0	31.9	0.0025	0.0191
SW-GL-B	ALS	2023-08-14	WP2319972	6.91	6.95	9.4	9	35.2	<1.0	<1.0	<1.0	35.2	0.0042	0.0095
SW-GL-B	ALS	2023-08-14	WP2319972-002											
SW-GL-B	ALS	2023-09-02	WP2322077-008	7.12	7.67	19	<2.0	32.4	<1.0	<1.0	<1.0	32.4	0.0015	0.0094
SW-GL-B	ALS	2023-10-13	WP2326557-002	7.2	7.35	12	3	33.6	<1.0	<1.0	<1.0	33.6	0.0018	0.0133
SW-GL-B	ALS	2023-11-02	WP2328687	7.15	7.48	5.2	2.7	31.8	<1.0	<1.0	<1.0	31.8	0.0228	0.015
SW-GL-B	ALS	2023-11-02	WP2328687-001											
SW-GL-B	ALS	2024-02-06	WP2403186	7.14	6.91	4.1	7.4	38.7	<1.0	<1.0	<1.0	38.7	0.0041	0.0088
SW-GL-B	ALS	2024-02-06	WP2403186-002											
SW-GL-B	ALS	2024-03-01	WP2405262-002											
SW-GL-B	ALS	2024-03-01	WP2405262	6.9	7.43	4	5.1	37	<1.0	<1.0	<1.0	37	0.0029	0.0084
SW-GL-B	ALS	2024-04-02	WP2407730	7.02	7.29	4.2	2.2	38.8	<1.0	<1.0	<1.0	38.8	0.0032	0.0098
SW-GL-B	ALS	2024-04-02	WP2407730-002											
SW-GL-B	ALS	2024-05-27	WP2413499	7.18	7.55	11.4	<2.0	32	<1.0	<1.0	<1.0	32	0.0033	0.0123
SW-GL-B	ALS	2024-06-20	WP2415789	6.55	7.42	13.9	3.6	32.8	<1.0	<1.0	<1.0	32.8	0.0061	0.0184
SW-GL-B	ALS	2024-07-08	WP2417173	6.4	7.15	13.7	6.7	38.3	<1.0	<1.0	<1.0	38.3	0.0083	0.0157
SW-GL-B	ALS	2024-08-11	WP2419573	6.61	7.16	14.9	5.7	36	<1.0	<1.0	<1.0	36	0.0079	0.0142
SW-GL-B	ALS	2024-09-07	WP2421728	5.67	7.02	13.2	11.9	38.8	<1.0	<1.0	<1.0	38.8	0.0106	0.0142
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005											
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006											
SW-GL-B	ALS	2024-10-10	WP2424082	6.92	7.49	9.06	<2.0	33	<1.0	<1.0	<1.0	33	0.0026	0.0188
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018											
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018											
SW-GL-B	ALS	2024-11-03	WP2425500	6.47	7.6	3.51	<2.0	33.7	<1.0	<1.0	<1.0	33.7	0.0022	0.017
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008											
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009											
SW-TR	SGS	2022-05-28		4.87	4.48	14.5	23					< 2		0.35
SW-TR	SGS	2022-07-20	CA15356-JUL22	4.76	4.76	5.8	32					< 2		0.627
SW-TR	SGS	2022-09-21	CA13964-SEP22	4.21	4.79	10.4	32					< 2		0.509
SW-TR	SGS	2022-09-21	CA13964-SEP22	4.21	4.7	10.4	33					< 2		0.515
SW-TR	SGS	2022-10-12	CA15286-OCT22	4.65	4.95	7.7	30					< 2		0.499
SW-TR	SGS	2023-01-18	CA13675-JAN23	4.98	5.38	0.44	39					3		1.16
SW-TR	SGS	2023-02-13	CA15347-FEB23	5.41	5.01	1.28	94					< 2	1.13	12.4
SW-TR	SGS	2023-03-29	CA15003-APR23	5.44	5.17	1.74	61					3	1.23	1.79
SW-TR	SGS	2023-04-10	CA15222-APR23	4.74	5.39	4.62	58					5	1.08	1.69
SW-TR	ALS	2023-05-14	WP2308112											
SW-TR	ALS	2023-05-14	WP2308112	4.85	4.63	15.3	8.6	<1.0	<1.0	<1.0	<1.0	<1.0	0.37	0.39
SW-TR	ALS	2023-05-14	WP2308112-007											
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004											
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003											
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004											
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007											
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007											
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006											

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500			<0.0010	0.0216	<0.00010	<0.00010	0.00284	0.00295	0.00686	0.00726	<0.000020	<0.000020
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001												
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003												
SW-GL02	ALS	2024-12-02	WP2426974			<0.0010	0.0306	<0.00010	0.00011	0.00366	0.0031	0.0094	0.00989	<0.000020	0.000033
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001												
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001												
SW-GL08	SGS	2022-11-07	CA15216-NOV22	0.013			< 0.1	< 0.0009	< 0.0009	0.0006	0.0007	0.00831	0.00816	0.00003	0.000025
SW-GL-B	ALS	2023-06-10	WP2311799-002		0.049	<0.0010		<0.00010	0.00011	0.00162	0.00318	0.00716	0.0118	<0.000020	<0.000020
SW-GL-B	ALS	2023-07-17	WP2316174-004		0.012	<0.0010		<0.00010	0.00018	0.00164	0.00192	0.00645	0.00707	<0.000020	<0.000020
SW-GL-B	ALS	2023-08-14	WP2319972			<0.0010	0.039	<0.00010	<0.00010	0.00524	0.00312	0.00617	0.00727	<0.000020	<0.000020
SW-GL-B	ALS	2023-08-14	WP2319972-002		0.039										
SW-GL-B	ALS	2023-09-02	WP2322077-008		0.027	<0.0010		<0.00010	<0.00010	0.00183	0.00206	0.00699	0.00751	<0.000020	<0.000020
SW-GL-B	ALS	2023-10-13	WP2326557-002		0.0359	<0.0010		<0.00010	<0.00010	0.00241	0.00285	0.0076	0.00732	<0.000020	<0.000020
SW-GL-B	ALS	2023-11-02	WP2328687			<0.0010	0.0117	<0.00010	<0.00010	0.00319	0.00228	0.0121	0.0068	<0.000020	<0.000020
SW-GL-B	ALS	2023-11-02	WP2328687-001		0.0117										
SW-GL-B	ALS	2024-02-06	WP2403186			<0.0010	0.207	<0.00010	<0.00010	0.00414	0.00491	0.0112	0.0119	<0.000020	<0.000020
SW-GL-B	ALS	2024-02-06	WP2403186-002		0.207										
SW-GL-B	ALS	2024-03-01	WP2405262-002		0.0061										
SW-GL-B	ALS	2024-03-01	WP2405262			<0.0010	0.0061	<0.00010	<0.00010	0.00244	0.00298	0.00975	0.01	<0.000020	<0.000020
SW-GL-B	ALS	2024-04-02	WP2407730			<0.0010	0.0232	<0.00010	<0.00010	0.00243	0.00319	0.0112	0.0108	<0.000020	<0.000020
SW-GL-B	ALS	2024-04-02	WP2407730-002		0.0232										
SW-GL-B	ALS	2024-05-27	WP2413499			<0.0010	<0.0050	<0.00010	<0.00010	0.00115	0.00144	0.00637	0.00704	<0.000020	<0.000020
SW-GL-B	ALS	2024-06-20	WP2415789			<0.0010	0.107	<0.00010	<0.0001	0.0019	0.00261	0.00815	0.00851	<0.000020	<0
SW-GL-B	ALS	2024-07-08	WP2417173			<0.0010	0.356	<0.00010	<0.00010	0.0144	0.0151	0.0106	0.014	<0.000020	<0.000020
SW-GL-B	ALS	2024-08-11	WP2419573			<0.0010	0.0406	<0.00010	<0.00010	0.0109	0.00439	0.0126	0.0146	<0.000020	<0.000020
SW-GL-B	ALS	2024-09-07	WP2421728			<0.0010	0.549	<0.00010	<0.00010	0.023	0.024	0.0141	0.0204	<0.000020	<0.000020
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005												
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006												
SW-GL-B	ALS	2024-10-10	WP2424082			<0.0010	0.0164	<0.00010	<0.00010	0.00224	0.00274	0.00701	0.00784	<0.000020	<0.000020
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018												
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018												
SW-GL-B	ALS	2024-11-03	WP2425500			<0.0010	0.0318	<0.00010	<0.00010	0.00167	0.00206	0.00713	0.00749	<0.000020	<0.000020
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008												
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009												
SW-TR	SGS	2022-05-28		0.318			< 0.1	< 0.0009	< 0.0009	0.0041	0.0044	0.00606	0.00619	0.000024	0.000017
SW-TR	SGS	2022-07-20	CA15356-JUL22	0.407			< 0.1	< 0.0009	< 0.0009	0.0042	0.0077	0.0106	0.0114	0.00004	0.00001
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.461			< 0.1	< 0.0009	< 0.0009	0.008	0.0072	0.00592	0.00777	0.000021	0.000022
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.46			< 0.1	< 0.0009	< 0.0009	0.0083	0.0073	0.00629	0.00723	0.000022	0.000024
SW-TR	SGS	2022-10-12	CA15286-OCT22	0.468			< 0.1	< 0.0009	< 0.0009	0.0066	0.0061	0.00817	0.00821	0.000035	0.000035
SW-TR	SGS	2023-01-18	CA13675-JAN23	0.739			0.5	< 0.0009	< 0.0009	0.008	0.0093	0.0127	0.0167	0.000103	0.000097
SW-TR	SGS	2023-02-13	CA15347-FEB23	1.37			0.7	< 0.0009	< 0.0009	0.0124	0.0191	0.0203	0.0957	0.00004	0.000306
SW-TR	SGS	2023-03-29	CA15003-APR23	1.18			1.3	< 0.0009	< 0.0009	0.0145	0.0145	0.0219	0.0247	0.000036	0.000061
SW-TR	SGS	2023-04-10	CA15222-APR23	1.19			1.2	< 0.0009	< 0.0009	0.012	0.0135	0.018	0.0218	0.000042	0.000058
SW-TR	ALS	2023-05-14	WP2308112												
SW-TR	ALS	2023-05-14	WP2308112			<0.0010	0.027	0.00013	0.00014	0.0039	0.00412	0.00544	0.00541	0.000023	<0.000020
SW-TR	ALS	2023-05-14	WP2308112-007		0.027										
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004												
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003												
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004												
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007												
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007												
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	15	15.2	25.7	<0.000010	<0.000010		0.46
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001													
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003													
SW-GL02	ALS	2024-12-02	WP2426974	<0.000050	<0.000050	<0.010	<0.010	0.0000102	0.0000056	4.66	9.98	38.8	<0.000010	0.000016		0.48
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001													
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001													
SW-GL08	SGS	2022-11-07	CA15216-NOV22	< 0.00001	< 0.00001	< 0.002	<0.002	0.000006	0.000015	12	11.9	6			12	38
SW-GL-B	ALS	2023-06-10	WP2311799-002	<0.000050	<0.000050	<0.100	<0.010	<0.0000050	<0.0000050	9.51	10.8	12.2	<0.000010	0.000016		<5.00
SW-GL-B	ALS	2023-07-17	WP2316174-004	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.89	9.7	10.6	<0.000010	<0.000010		0.19
SW-GL-B	ALS	2023-08-14	WP2319972	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.99	10.2	10.7	<0.000010	<0.000010		0.22
SW-GL-B	ALS	2023-08-14	WP2319972-002													
SW-GL-B	ALS	2023-09-02	WP2322077-008	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.58	9.51	9.72	<0.000010	<0.000010		0.17
SW-GL-B	ALS	2023-10-13	WP2326557-002	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.6	9.5	9.5	<0.000010	<0.000010		0.19
SW-GL-B	ALS	2023-11-02	WP2328687	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.57	9.74	10	<0.000010	<0.000010		0.2
SW-GL-B	ALS	2023-11-02	WP2328687-001													
SW-GL-B	ALS	2024-02-06	WP2403186	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.9	10.9	10.2	<0.000010	<0.000010		0.21
SW-GL-B	ALS	2024-02-06	WP2403186-002													
SW-GL-B	ALS	2024-03-01	WP2405262-002													
SW-GL-B	ALS	2024-03-01	WP2405262	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.6	10.8	10.3	<0.000010	<0.000010		0.21
SW-GL-B	ALS	2024-04-02	WP2407730	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.7	11.7	8.98	<0.000010	<0.000010		0.23
SW-GL-B	ALS	2024-04-02	WP2407730-002													
SW-GL-B	ALS	2024-05-27	WP2413499	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	8.57	9.5	11.5	<0.000010	<0.000010		0.2
SW-GL-B	ALS	2024-06-20	WP2415789	<0.000050	<0	<0.010	<0.01	<0.0000050	<0	9.22	10	11.1	<0.000010	<0.000010		0.22
SW-GL-B	ALS	2024-07-08	WP2417173	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	11.1	10.8	11.9	<0.000010	<0.000010		0.24
SW-GL-B	ALS	2024-08-11	WP2419573	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	10.5	10.4	11.3	<0.000010	<0.000010		0.21
SW-GL-B	ALS	2024-09-07	WP2421728	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	12	11.6	12.8	0.00001	<0.000010		0.22
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005													
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006													
SW-GL-B	ALS	2024-10-10	WP2424082	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.46	9.5	11	<0.000010	<0.000010		0.18
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018													
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018													
SW-GL-B	ALS	2024-11-03	WP2425500	<0.000050	<0.000050	<0.010	<0.010	<0.0000050	<0.0000050	9.1	9.35	11.6	<0.000010	<0.000010		0.2
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008													
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009													
SW-TR	SGS	2022-05-28		< 0.00001	0.00001	0.005	0.006	0.000019	0.000018	1.76	1.82	35			91	3
SW-TR	SGS	2022-07-20	CA15356-JUL22	0.00001	0.00001	0.135	0.313	0.00004	< 0.000003	2.34	2.7	44			104	3
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.00001	< 0.00001	0.002	0.005	0.00003	0.000017	2.72	2.85	48			122	3
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.00001	< 0.00001	0.003	0.006	0.000018	0.000015	2.79	2.85	48			121	3
SW-TR	SGS	2022-10-12	CA15286-OCT22	0.00001	< 0.00001	0.037	0.004	0.000017	0.00002	2.97	2.3	44			110	3
SW-TR	SGS	2023-01-18	CA13675-JAN23	0.00002	0.00003	0.003	0.004	0.000077	0.000057	4.57	5.09	59			143	5
SW-TR	SGS	2023-02-13	CA15347-FEB23	0.00001	0.00009	0.005	0.006	0.000015	0.000431	6.56	9.68	64			131	7
SW-TR	SGS	2023-03-29	CA15003-APR23	0.00002	0.00003	0.004	0.005	0.000044	0.000072	7.83	6.52	75			192	8
SW-TR	SGS	2023-04-10	CA15222-APR23	0.00001	0.00002	0.005	0.007	0.000024	0.000065	6.31	6.72	79			260	8
SW-TR	ALS	2023-05-14	WP2308112													
SW-TR	ALS	2023-05-14	WP2308112	<0.000050	<0.000050	<0.010	<0.010	0.000014	0.0000098	1.97	1.95	35.5	0.000021	0.000023		0.12
SW-TR	ALS	2023-05-14	WP2308112-007													
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004													
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003													
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004													
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007													
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007													
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500	0.00061	0.00067	0.00014	0.00017	96.7	0.00057	0.00055	<0.0010	<0.0010		<0.0010		
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001													
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003													
SW-GL02	ALS	2024-12-02	WP2426974	0.00074	0.00079	0.0003	0.00027	67.6	0.00142	0.00112	0.0011	<0.0010		<0.0010		
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001													
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001													
SW-GL08	SGS	2022-11-07	CA15216-NOV22	0.00018	0.00018	0.000101	0.000099	172	0.0013	0.0004	< 0.005		< 0.01	< 0.01		0.14
SW-GL-B	ALS	2023-06-10	WP2311799-002	0.00011	0.00018	<0.00010	0.00012	84.5	0.0003	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2023-07-17	WP2316174-004	<0.00010	<0.00010	<0.00010	<0.00010	68.6	0.0002	<0.00050	<0.0010	0.0018		0.002		
SW-GL-B	ALS	2023-08-14	WP2319972	<0.00010	<0.00010	0.00014	<0.00010	74.9	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2023-08-14	WP2319972-002													
SW-GL-B	ALS	2023-09-02	WP2322077-008	<0.00010	<0.00010	<0.00010	<0.00010	69.1	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2023-10-13	WP2326557-002	<0.00010	<0.00010	<0.00010	<0.00010	69.3	0.00031	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2023-11-02	WP2328687	<0.00010	<0.00010	<0.00010	<0.00010	64.3	0.00029	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2023-11-02	WP2328687-001													
SW-GL-B	ALS	2024-02-06	WP2403186	<0.00050	<0.00050	<0.00010	<0.00010	81.1	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2024-02-06	WP2403186-002	<0.00010	0.00016											
SW-GL-B	ALS	2024-03-01	WP2405262-002	<0.00010	0.00012											
SW-GL-B	ALS	2024-03-01	WP2405262	<0.00050	<0.00050	<0.00010	<0.00010	80.2	0.00022	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2024-04-02	WP2407730	<0.00050	<0.00050	<0.00010	<0.00010	86.6	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2024-04-02	WP2407730-002	<0.00010	<0.00010											
SW-GL-B	ALS	2024-05-27	WP2413499	<0.00010	<0.00010	<0.00010	<0.00010	64.6	0.00024	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2024-06-20	WP2415789	<0.00010	<0.0005	<0.00010	<0.0001	70.4	<0.00020	<0.0005	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2024-07-08	WP2417173	<0.00010	<0.00010	0.00014	0.00014	76.5	<0.00020	<0.00050	0.0013	<0.0010		<0.0010		
SW-GL-B	ALS	2024-08-11	WP2419573	<0.00010	<0.00010	0.00011	0.00011	73.5	0.00065	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	ALS	2024-09-07	WP2421728	0.00012	0.00011	0.00028	0.00025	78.6	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005													
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006													
SW-GL-B	ALS	2024-10-10	WP2424082	<0.00010	0.0001	<0.00010	<0.00010	67.6	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018													
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018													
SW-GL-B	ALS	2024-11-03	WP2425500	<0.00010	0.00011	<0.00010	<0.00010	67.8	<0.00020	<0.00050	<0.0010	<0.0010		<0.0010		
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008													
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009													
SW-TR	SGS	2022-05-28		0.00043	0.00048	0.000249	0.000228	26	0.001	0.0009			< 0.01			< 0.06
SW-TR	SGS	2022-07-20	CA15356-JUL22	0.00155	0.00249	0.00028	0.00052	24	0.0007	0.0132			< 0.01			< 0.06
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.00081	0.0009	0.000413	0.000418	28	0.0004	0.0004			< 0.01			< 0.06
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.00091	0.00097	0.000411	0.000432	32	0.0005	0.0004			< 0.01			< 0.06
SW-TR	SGS	2022-10-12	CA15286-OCT22	0.00093	0.00083	0.000385	0.000334	25	0.0006	0.0005			< 0.01			< 0.06
SW-TR	SGS	2023-01-18	CA13675-JAN23	0.00103	0.00161	0.000546	0.000666	30	0.0006	0.0014	< 0.005		< 0.01	< 0.01		< 0.06
SW-TR	SGS	2023-02-13	CA15347-FEB23	0.00139	0.0182	0.000625	0.00268	44	0.0011	0.0161	< 0.005		< 0.01			< 0.06
SW-TR	SGS	2023-03-29	CA15003-APR23	0.00382	0.00371	0.00109	0.00116	43	0.0018	0.0031	< 0.005		< 0.01			< 0.06
SW-TR	SGS	2023-04-10	CA15222-APR23	0.00147	0.00237	0.000845	0.000998	52	0.0018	0.0021	< 0.005		< 0.01			< 0.06
SW-TR	ALS	2023-05-14	WP2308112	0.00058	0.0007											
SW-TR	ALS	2023-05-14	WP2308112	0.00058	0.0007	0.00035	0.00035	28.2	0.00087	0.00088	0.0011	<0.0010		0.0016		
SW-TR	ALS	2023-05-14	WP2308112-007													
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004													
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003													
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004													
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007													
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007													
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500	50.6	52	1.18	1.44	<0.000050	<0.000050	0.0024	0.0023	3.2	3.41	0.0217	0.0251
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001												
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003												
SW-GL02	ALS	2024-12-02	WP2426974	22.3	34.4	1.21	1.36	<0.000050	0.000114	0.0025	0.0024	2.6	2.29	0.0411	0.039
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001												
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001												
SW-GL08	SGS	2022-11-07	CA15216-NOV22	39.1	39	0.169	0.159	< 0.00009	< 0.00009			2.24	2.27	0.0247	0.0235
SW-GL-B	ALS	2023-06-10	WP2311799-002	31.7	37.7	0.505	0.853	<0.000050	0.000155	0.0017	0.0012	1.93	2.6	0.134	0.243
SW-GL-B	ALS	2023-07-17	WP2316174-004	34.5	35	0.014	0.088	<0.000050	0.000127	0.0011	0.0016	2.38	2.61	0.00053	0.0144
SW-GL-B	ALS	2023-08-14	WP2319972	34.5	35.7	1.52	0.501	<0.000050	<0.000050	<0.0010	0.0011	2.33	2.48	0.614	0.126
SW-GL-B	ALS	2023-08-14	WP2319972-002												
SW-GL-B	ALS	2023-09-02	WP2322077-008	33.8	33.7	0.021	0.094	<0.000050	<0.000050	0.0011	0.0014	2.41	2.42	0.00032	0.0194
SW-GL-B	ALS	2023-10-13	WP2326557-002	36.8	32.7	0.182	0.296	<0.000050	<0.000050	0.0013	<0.0010	2.5	2.18	0.00545	0.03
SW-GL-B	ALS	2023-11-02	WP2328687	29.4	33.6	1.26	0.235	0.000092	<0.000050	<0.0010	<0.0010	1.95	2.25	0.331	0.0159
SW-GL-B	ALS	2023-11-02	WP2328687-001												
SW-GL-B	ALS	2024-02-06	WP2403186	38.4	38.2	0.851	1.16	<0.000050	<0.000050	0.0011	0.0016	2.71	2.68	0.328	0.337
SW-GL-B	ALS	2024-02-06	WP2403186-002												
SW-GL-B	ALS	2024-03-01	WP2405262-002												
SW-GL-B	ALS	2024-03-01	WP2405262	36.9	37.8	0.411	0.624	<0.000050	<0.000050	0.0014	0.0014	2.53	2.63	0.154	0.195
SW-GL-B	ALS	2024-04-02	WP2407730	39.8	40.1	0.447	0.778	<0.000050	<0.000050	0.0012	0.0014	2.56	2.65	0.228	0.267
SW-GL-B	ALS	2024-04-02	WP2407730-002												
SW-GL-B	ALS	2024-05-27	WP2413499	29.8	32.6	0.057	0.138	<0.000050	<0.000050	<0.0010	0.0013	2.04	2.15	0.0012	0.0125
SW-GL-B	ALS	2024-06-20	WP2415789	32.4	34.8	0.195	0.486	<0.000050	<0	<0.0010	0.0018	2.29	2.39	0.11	0.148
SW-GL-B	ALS	2024-07-08	WP2417173	38.3	36.7	2.79	3.34	<0.000050	<0.000050	0.0013	<0.0010	2.58	2.36	0.548	0.536
SW-GL-B	ALS	2024-08-11	WP2419573	35.7	35.7	2.25	0.651	<0.000050	<0.000050	<0.0010	0.0013	2.31	2.37	0.469	0.448
SW-GL-B	ALS	2024-09-07	WP2421728	40.4	38	5.64	5.22	<0.000050	<0.000050	0.0018	0.0013	2.54	2.2	1.09	1.07
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005												
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006												
SW-GL-B	ALS	2024-10-10	WP2424082	32.8	33.4	0.129	0.262	<0.000050	<0.000050	0.0014	<0.0010	2.24	2.35	0.00327	0.0259
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018												
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018												
SW-GL-B	ALS	2024-11-03	WP2425500	31.8	32.4	0.075	0.202	<0.000050	<0.000050	0.0012	0.0013	2.21	2.21	0.00473	0.0174
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008												
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009												
SW-TR	SGS	2022-05-28		6.6	6.8	0.391	0.409	0.0004	0.00029	0.0007	0.0007	0.533	0.542	0.0486	0.0508
SW-TR	SGS	2022-07-20	CA15356-JUL22	9.2	10.4	1.78	1.95	0.00064	0.00072	0.0014	0.0011	0.81	0.89	0.0444	0.0479
SW-TR	SGS	2022-09-21	CA13964-SEP22	10.5	10.8	1.23	1.32	0.00024	0.00038			0.909	0.905	0.0288	0.0292
SW-TR	SGS	2022-09-21	CA13964-SEP22	10.7	11	1.26	1.32	0.00025	0.00037			0.91	0.934	0.0285	0.0296
SW-TR	SGS	2022-10-12	CA15286-OCT22	11.4	8.81	1.18	0.955	0.00031	0.00036			0.976	0.749	0.0287	0.0249
SW-TR	SGS	2023-01-18	CA13675-JAN23	16.3	18.1	1.6	2.04	0.0006	0.00128			1.18	1.3	0.0342	0.0374
SW-TR	SGS	2023-02-13	CA15347-FEB23	23.2	34.7	1.8	5.35	0.00043	0.0128			1.67	2.56	0.0518	0.082
SW-TR	SGS	2023-03-29	CA15003-APR23	27.5	22.9	3.96	3.47	0.00087	0.00205			1.94	1.62	0.0691	0.0544
SW-TR	SGS	2023-04-10	CA15222-APR23	23.3	24.5	2.46	3.07	0.00106	0.0016			1.82	1.88	0.052	0.0558
SW-TR	ALS	2023-05-14	WP2308112												
SW-TR	ALS	2023-05-14	WP2308112	7.72	7.69	0.629	0.663	0.000309	0.000294	<0.0010	<0.0010	0.679	0.686	0.0134	0.0137
SW-TR	ALS	2023-05-14	WP2308112-007												
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004												
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003												
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004												
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007												
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007												
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500	<0.0000050		<0.0000050		0.000222	0.000223	0.0007	0.00072	0.094	0.0955	0.0015	<0.030
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001		0.143										
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003				2.12								
SW-GL02	ALS	2024-12-02	WP2426974	<0.0000050		<0.0000050		0.000063	0.000143	0.00094	0.00085	0.204	0.206	0.0019	<0.030
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001				4.51								
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001		0.144										
SW-GL08	SGS	2022-11-07	CA15216-NOV22	< 0.00001		< 0.00001		0.0008	0.0005	0.0005	0.0009	0.1	0.1	< 0.03	
SW-GL-B	ALS	2023-06-10	WP2311799-002	<0.0000050		<0.0000050		0.000091	0.000112	<0.00050	<0.00050	<0.250	<0.255	<0.0500	
SW-GL-B	ALS	2023-07-17	WP2316174-004	<0.0000050		<0.0000050		0.000103	0.000162	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL-B	ALS	2023-08-14	WP2319972	<0.0000050		<0.0000050		0.000131	0.00011	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL-B	ALS	2023-08-14	WP2319972-002												
SW-GL-B	ALS	2023-09-02	WP2322077-008	<0.0000050		<0.0000050		0.0001	0.000117	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL-B	ALS	2023-10-13	WP2326557-002	<0.0000050		<0.0000050		0.000123	0.000112	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL-B	ALS	2023-11-02	WP2328687	<0.0000050		<0.0000050		0.000105	0.0001	<0.00050	<0.00050	0.0176	0.0176	<0.0010	
SW-GL-B	ALS	2023-11-02	WP2328687-001												
SW-GL-B	ALS	2024-02-06	WP2403186	<0.0000050		<0.0000050		0.000118	0.000106	<0.00050	<0.00050	0.221	0.223	0.0023	
SW-GL-B	ALS	2024-02-06	WP2403186-002												
SW-GL-B	ALS	2024-03-01	WP2405262-002												
SW-GL-B	ALS	2024-03-01	WP2405262	<0.0000050		<0.0000050		0.000112	0.000118	<0.00050	<0.00050	0.316	0.316	<0.0010	
SW-GL-B	ALS	2024-04-02	WP2407730	<0.0000050		<0.0000050		0.000096	0.000109	<0.00050	<0.00050	0.256	0.256	<0.0010	
SW-GL-B	ALS	2024-04-02	WP2407730-002												
SW-GL-B	ALS	2024-05-27	WP2413499	<0.0000050		<0.0000050		0.000079	0.000082	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.03
SW-GL-B	ALS	2024-06-20	WP2415789	<0.0000050		<0		0.000095	0.000088	<0.00050	<0.0005	0.0069	0.0069	<0.0010	
SW-GL-B	ALS	2024-07-08	WP2417173	<0.0000050		<0.0000050		0.000116	0.000132	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL-B	ALS	2024-08-11	WP2419573	<0.0000050		<0.0000050		0.000137	0.000126	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	
SW-GL-B	ALS	2024-09-07	WP2421728	<0.0000050		<0.0000050		0.000138	0.00013	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	0.158
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005				1.74								
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006		0.655										
SW-GL-B	ALS	2024-10-10	WP2424082	<0.0000050		<0.0000050		0.000111	0.000106	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018				0.6								
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018		0.034										
SW-GL-B	ALS	2024-11-03	WP2425500	<0.0000050		<0.0000050		0.000084	0.000118	<0.00050	<0.00050	<0.0050	<0.0051	<0.0010	<0.030
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008		0.027										
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009				0.57								
SW-TR	SGS	2022-05-28		0.00001		< 0.00001		0.00008	< 0.00004	0.0006	0.0006	< 0.06	< 0.06	< 0.03	
SW-TR	SGS	2022-07-20	CA15356-JUL22	0.00001		0.00001		0.00012	0.00012	0.0013	0.0019	< 0.06	< 0.06	< 0.03	
SW-TR	SGS	2022-09-21	CA13964-SEP22			< 0.00001		0.00008	< 0.00004	0.0009	0.001	< 0.06	< 0.06	< 0.03	
SW-TR	SGS	2022-09-21	CA13964-SEP22			< 0.00001		0.00019	< 0.00004	0.0009	0.001	< 0.06	< 0.06	< 0.03	
SW-TR	SGS	2022-10-12	CA15286-OCT22			< 0.00001		0.00008	0.00006	0.0012	0.0008	< 0.06	< 0.06	< 0.03	
SW-TR	SGS	2023-01-18	CA13675-JAN23	0.00001		0.00001		0.0001	0.00019	0.0011	0.0015	0.62	0.62	< 0.03	
SW-TR	SGS	2023-02-13	CA15347-FEB23	0.00015		0.00015		0.00014	0.00172	0.0013	0.0098	< 0.06	< 0.06	< 0.03	
SW-TR	SGS	2023-03-29	CA15003-APR23	0.00001		0.00001		0.00021	0.00034	0.0056	0.0048	< 0.06	< 0.06	< 0.03	
SW-TR	SGS	2023-04-10	CA15222-APR23	< 0.00002		< 0.00002		0.00013	0.00027	0.0019	0.0024	< 0.06	< 0.06	< 0.03	
SW-TR	ALS	2023-05-14	WP2308112												
SW-TR	ALS	2023-05-14	WP2308112	<0.0000050		0.0000051		0.000056	0.000066	0.00057	0.00061	<0.0050	<0.0051	<0.0010	
SW-TR	ALS	2023-05-14	WP2308112-007												
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004				6.82								
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003				6.98								
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004		0.153										
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007		0.705										
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007				5.97								
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006		0.701										

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500		0.037	0.0519		0.961	0.922		0.00194	0.00203	0.000072	0.000095	6.82
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001												
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003												
SW-GL02	ALS	2024-12-02	WP2426974		<0.030	0.0324		0.634	0.532		0.00179	0.00181	0.000069	<0.000050	6.9
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001												
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001												
SW-GL08	SGS	2022-11-07	CA15216-NOV22	0.007			0.009	0.829	0.823	---			0.00023	0.00036	6.33
SW-GL-B	ALS	2023-06-10	WP2311799-002	<0.030		0.0212	0.048	0.718	0.834		0.00159	0.00199	0.00006	0.000102	1.6
SW-GL-B	ALS	2023-07-17	WP2316174-004	<0.030		0.0116	<0.030	0.712	0.747		0.00177	0.0018	0.000068	0.000078	1.14
SW-GL-B	ALS	2023-08-14	WP2319972	<0.030	<0.030	0.0356	<0.050	0.779	0.758		0.00206	0.00174	0.000059	0.000061	2.15
SW-GL-B	ALS	2023-08-14	WP2319972-002				<0.030								
SW-GL-B	ALS	2023-09-02	WP2322077-008	<0.030		0.0105	<0.030	0.732	0.726		0.00172	0.0019	<0.000050	<0.000050	1.21
SW-GL-B	ALS	2023-10-13	WP2326557-002	<0.030		0.0174	<0.030	0.864	0.769		0.00204	0.00193	0.000059	0.000072	1.52
SW-GL-B	ALS	2023-11-02	WP2328687	<0.030	<0.030	0.0163	<0.050	0.741	0.738		0.00176	0.00191	0.000068	<0.000050	1.34
SW-GL-B	ALS	2023-11-02	WP2328687-001				<0.030								
SW-GL-B	ALS	2024-02-06	WP2403186	<0.050	0.035	0.036	<0.050	0.736	0.746		0.00208	0.00205	0.000076	0.000059	1.8
SW-GL-B	ALS	2024-02-06	WP2403186-002	<0.030			0.035								
SW-GL-B	ALS	2024-03-01	WP2405262-002	<0.030			<0.03								
SW-GL-B	ALS	2024-03-01	WP2405262	<0.050	<0.030	0.0222	<0.050	0.748	0.806		0.00195	0.00194	0.000052	0.000118	1.44
SW-GL-B	ALS	2024-04-02	WP2407730	<0.050	0.034	0.0304	<0.050	0.832	0.835		0.00195	0.00194	0.000067	0.000058	1.87
SW-GL-B	ALS	2024-04-02	WP2407730-002	<0.030			0.034								
SW-GL-B	ALS	2024-05-27	WP2413499	<0.050	<0.030	0.0203	<0.050	0.603	0.678		0.00163	0.00163	0.000051	<0.000050	0.619
SW-GL-B	ALS	2024-06-20	WP2415789	<0.030	<0.03	0.0274	<0.05	0.672	0.717		0.00189	0.00192	<0.000050	0.000092	1.2
SW-GL-B	ALS	2024-07-08	WP2417173	0.11	0.124	0.15	0.124	0.766	0.713		0.00208	0.0021	<0.000050	0.000094	2.08
SW-GL-B	ALS	2024-08-11	WP2419573	0.06	<0.030	0.0273	<0.050	0.734	0.734		0.00212	0.00201	0.000054	0.000068	1.89
SW-GL-B	ALS	2024-09-07	WP2421728	0.158	0.194	0.212	0.194	0.85	0.804		0.00231	0.00257	<0.000050	0.000054	2.59
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005												
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006												
SW-GL-B	ALS	2024-10-10	WP2424082		0.036	0.0221		0.664	0.687		0.00182	0.00196	<0.000050	0.00023	0.887
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018												
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018												
SW-GL-B	ALS	2024-11-03	WP2425500		<0.030	0.0216		0.724	0.69		0.00188	0.00184	<0.000050	0.000055	0.581
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008												
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009												
SW-TR	SGS	2022-05-28		< 0.003			0.018	0.056	0.06				0.0001	0.00011	2.64
SW-TR	SGS	2022-07-20	CA15356-JUL22	0.03			0.14	0.56	0.71				< 0.00004	< 0.00004	2.09
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.004			0.022	0.227	0.234				0.00019	0.00012	3.43
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.003			0.018	0.236	0.24				0.0002	0.00014	3.38
SW-TR	SGS	2022-10-12	CA15286-OCT22	0.022			0.017	0.302	0.229				0.00016	0.00016	3.49
SW-TR	SGS	2023-01-18	CA13675-JAN23	0.024			0.093	0.444	0.555				0.00286	0.00093	5.75
SW-TR	SGS	2023-02-13	CA15347-FEB23	0.013			0.677	0.633	1.56				0.00023	0.00034	8.25
SW-TR	SGS	2023-03-29	CA15003-APR23	0.044			0.158	0.846	0.766				0.00072	0.00088	8.8
SW-TR	SGS	2023-04-10	CA15222-APR23	0.014			0.108	0.715	0.775				0.00021	0.0003	8.87
SW-TR	ALS	2023-05-14	WP2308112	<0.030											
SW-TR	ALS	2023-05-14	WP2308112	<0.050	<0.030	0.0125	<0.050	0.146	0.161		0.00057	0.00063	0.000097	0.000124	3.36
SW-TR	ALS	2023-05-14	WP2308112-007	<0.030			<0.030								
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004												
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003												
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004												
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007												
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007												
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006												

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500	7	<0.000010	<0.000010	1.82	1.7	102	<1.0	0.0333	0.0337	0.52	0.55	1.01	<0.00020
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001													
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003													
SW-GL02	ALS	2024-12-02	WP2426974	5.94	<0.000010	<0.000010	1.48	1.5	116	1.1	0.011	0.0253	0.71	<0.50	1.1	<0.00020
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001													
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001													
SW-GL08	SGS	2022-11-07	CA15216-NOV22	6.57	< 0.00005	< 0.00005	13.7	13.3	163	3	0.0449	0.0454	1	1	3	
SW-GL-B	ALS	2023-06-10	WP2311799-002	2.33	<0.000010	<0.000010	1.34	1.43	42.8	2	0.021	0.0241	<0.50	0.57	<15.0	<0.00020
SW-GL-B	ALS	2023-07-17	WP2316174-004	1.2	<0.000010	<0.000010	1.18	1.3	56.6	2.4	0.0214	0.0204	<0.50	<0.50	0.71	<0.00020
SW-GL-B	ALS	2023-08-14	WP2319972	1.4	<0.000010	<0.000010	1.09	1.24	57.8	6.9	0.0225	0.0208	<0.50	<0.50	0.51	<0.00020
SW-GL-B	ALS	2023-08-14	WP2319972-002													
SW-GL-B	ALS	2023-09-02	WP2322077-008	1.22	<0.000010	<0.000010	1.18	1.23	61.3	2.6	0.0212	0.0252	<0.50	<0.50	0.58	<0.00020
SW-GL-B	ALS	2023-10-13	WP2326557-002	1.31	<0.000010	<0.000010	1.16	1.14	50.3	2.2	0.0254	0.023	<0.50	0.51	0.63	<0.00020
SW-GL-B	ALS	2023-11-02	WP2328687	0.97	<0.000010	<0.000010	1.16	1.22	45.5	210	0.0187	0.0216	<0.50	<0.50	0.69	<0.00020
SW-GL-B	ALS	2023-11-02	WP2328687-001													
SW-GL-B	ALS	2024-02-06	WP2403186	1.93	<0.000010	<0.000010	1.31	1.3	66.2	<1.0	0.0246	0.024	<0.50	0.56	0.52	<0.00020
SW-GL-B	ALS	2024-02-06	WP2403186-002													
SW-GL-B	ALS	2024-03-01	WP2405262-002													
SW-GL-B	ALS	2024-03-01	WP2405262	1.6	<0.000010	<0.000010	1.29	1.34	55.5	<1.0	0.0232	0.0241	<0.50	<0.50	0.61	<0.00020
SW-GL-B	ALS	2024-04-02	WP2407730	1.97	<0.000010	<0.000010	1.28	1.36	43.7	1.4	0.0254	0.0246	<0.50	<0.50	0.7	<0.00020
SW-GL-B	ALS	2024-04-02	WP2407730-002													
SW-GL-B	ALS	2024-05-27	WP2413499	0.72	<0.000010	<0.000010	1.03	1.21	41.3	1.7	0.0207	0.0216	<0.50	<0.50	0.56	<0.00020
SW-GL-B	ALS	2024-06-20	WP2415789	1.38	<0.000010	<0	1.08	1.23	46.9	1.2	0.0201	0.0223	<0.50	<0.50	0.72	<0.00020
SW-GL-B	ALS	2024-07-08	WP2417173	1.96	<0.000010	<0.000010	1.25	1.18	67.2	11.9	0.0248	0.0257	<0.50	<0.50	0.54	<0.00020
SW-GL-B	ALS	2024-08-11	WP2419573	1.55	<0.000010	<0.000010	1.13	1.12	63.2	6.5	0.024	0.0237	<0.50	<0.50	0.44	<0.00020
SW-GL-B	ALS	2024-09-07	WP2421728	2.49	<0.000010	<0.000010	1.15	1.08	64.6	15.8	0.0277	0.0271	<0.50	<0.50	<0.30	<0.00020
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005													
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006													
SW-GL-B	ALS	2024-10-10	WP2424082	0.87	<0.000010	<0.000010	1.17	1.22	58.9	3.6	0.0217	0.0212	<0.50	<0.50	0.6	<0.00020
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018													
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018													
SW-GL-B	ALS	2024-11-03	WP2425500	0.71	<0.000010	<0.000010	1.17	1.15	41.6	2.6	0.0207	0.0209	<0.50	<0.50	0.64	<0.00020
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008													
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009													
SW-TR	SGS	2022-05-28		2.84	< 0.00005	< 0.00005	0.47	0.48	111	2	0.00794	0.00835		< 1	< 2	
SW-TR	SGS	2022-07-20	CA15356-JUL22	2.73	< 0.00005	< 0.00005	4.16	6.08	109	66	0.01	0.0138		13	< 2	
SW-TR	SGS	2022-09-21	CA13964-SEP22	3.3	< 0.00005	< 0.00005	0.83	0.87	94	4	0.0149	0.0153	< 1	1	< 2	
SW-TR	SGS	2022-09-21	CA13964-SEP22	3.41	< 0.00005	< 0.00005	0.85	0.92	77	3	0.0152	0.0153	< 1	< 1	< 2	
SW-TR	SGS	2022-10-12	CA15286-OCT22	2.33	< 0.00005	< 0.00005	0.99	0.66	71	< 2	0.0151	0.0139	< 1	< 1	< 2	
SW-TR	SGS	2023-01-18	CA13675-JAN23	7.36	< 0.00005	< 0.00005	1.13	1.2	134	79	0.0208	0.0231	< 1	< 1	< 2	
SW-TR	SGS	2023-02-13	CA15347-FEB23	39.3	< 0.00005	0.00005	1.78	2.16	137	1330	0.0315	0.0569	< 1	3	< 2	
SW-TR	SGS	2023-03-29	CA15003-APR23	11.5	< 0.00005	< 0.00005	1.94	1.58	171	105	0.0364	0.0323	2	1	< 2	
SW-TR	SGS	2023-04-10	CA15222-APR23	9.79	< 0.00005	< 0.00005	1.81	1.93	171	68	0.0326	0.0353	< 1	1	< 20	
SW-TR	ALS	2023-05-14	WP2308112													
SW-TR	ALS	2023-05-14	WP2308112	3.56	<0.000010	<0.000010	0.784	0.803	44.2	<1.0	0.00977	0.011	0.7	<0.50	1.4	<0.00020
SW-TR	ALS	2023-05-14	WP2308112-007													
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004													
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003													
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004													
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007													
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007													
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00367	0.00459		<0.00010	<0.00010	0.000127
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001													
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003													
SW-GL02	ALS	2024-12-02	WP2426974	<0.00020	<0.000010	<0.000010	<0.00010	0.00013	<0.00010	<0.00010	0.00589	0.0095		<0.00010	<0.00010	0.000075
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001													
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001													
SW-GL08	SGS	2022-11-07	CA15216-NOV22		< 0.000005	< 0.000005			< 0.00006	0.0001	0.00026	0.00058	5	< 0.00002	< 0.00002	0.000133
SW-GL-B	ALS	2023-06-10	WP2311799-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00348		<0.00010	<0.00010	0.000025
SW-GL-B	ALS	2023-07-17	WP2316174-004	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00056		<0.00010	<0.00010	0.000039
SW-GL-B	ALS	2023-08-14	WP2319972	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000039
SW-GL-B	ALS	2023-08-14	WP2319972-002													
SW-GL-B	ALS	2023-09-02	WP2322077-008	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00034		<0.00010	<0.00010	0.000032
SW-GL-B	ALS	2023-10-13	WP2326557-002	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00045		<0.00010	<0.00010	0.000025
SW-GL-B	ALS	2023-11-02	WP2328687	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00065	0.00043		<0.00010	<0.00010	0.000035
SW-GL-B	ALS	2023-11-02	WP2328687-001													
SW-GL-B	ALS	2024-02-06	WP2403186	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.00004
SW-GL-B	ALS	2024-02-06	WP2403186-002													
SW-GL-B	ALS	2024-03-01	WP2405262-002													
SW-GL-B	ALS	2024-03-01	WP2405262	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000042
SW-GL-B	ALS	2024-04-02	WP2407730	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	<0.00030		<0.00010	<0.00010	0.000042
SW-GL-B	ALS	2024-04-02	WP2407730-002													
SW-GL-B	ALS	2024-05-27	WP2413499	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00034		<0.00010	<0.00010	0.000028
SW-GL-B	ALS	2024-06-20	WP2415789	<0.0002	<0.000010	<0	<0.00010	<0.00010	<0.00010	<0.0001	<0.00030	0.00043		<0.00010	<0.0001	0.000034
SW-GL-B	ALS	2024-07-08	WP2417173	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00056		<0.00010	<0.00010	0.000054
SW-GL-B	ALS	2024-08-11	WP2419573	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.0003		<0.00010	<0.00010	0.000043
SW-GL-B	ALS	2024-09-07	WP2421728	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	0.00036	0.00051		<0.00010	<0.00010	0.000063
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005													
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006													
SW-GL-B	ALS	2024-10-10	WP2424082	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00066		<0.00010	<0.00010	0.000035
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018													
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018													
SW-GL-B	ALS	2024-11-03	WP2425500	<0.00020	<0.000010	<0.000010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00030	0.00048		<0.00010	<0.00010	0.000034
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008													
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009													
SW-TR	SGS	2022-05-28			0.000006	0.000005			0.00009	0.00007			34	< 0.00002	< 0.00002	0.000079
SW-TR	SGS	2022-07-20	CA15356-JUL22		< 0.000005	< 0.000005			0.00007	0.00111			43	0.00005	0.00006	0.00005
SW-TR	SGS	2022-09-21	CA13964-SEP22		0.000008	0.000011			< 0.00006	< 0.00006	0.0065	0.00711	52	0.00008	0.00006	0.000067
SW-TR	SGS	2022-09-21	CA13964-SEP22		0.000009	0.000012			< 0.00006	< 0.00006	0.0065	0.00723	58	0.00022	0.00011	0.000067
SW-TR	SGS	2022-10-12	CA15286-OCT22		0.000013	0.000013			0.00012	0.00007	0.00743	0.00614	44	0.00004	< 0.00002	0.00007
SW-TR	SGS	2023-01-18	CA13675-JAN23		0.000021	0.000025			0.0001	0.00013	0.0108	0.0291	60	0.00003	0.00004	0.00012
SW-TR	SGS	2023-02-13	CA15347-FEB23		0.000025	0.000134			0.00012	0.00009	0.0187	0.378	75	< 0.00002	0.00009	0.000182
SW-TR	SGS	2023-03-29	CA15003-APR23		0.000023	0.000026			0.0002	0.00008	0.0235	0.0573	77	0.00003	0.00003	0.00022
SW-TR	SGS	2023-04-10	CA15222-APR23		0.00002	0.00002			0.00008	0.0001	0.0181	0.043	92	< 0.00002	< 0.00002	0.000177
SW-TR	ALS	2023-05-14	WP2308112													
SW-TR	ALS	2023-05-14	WP2308112	<0.00020	<0.000010	<0.000010	0.00012	0.0001	<0.00010	<0.00010	0.00328	0.0035		<0.00010	<0.00010	0.000071
SW-TR	ALS	2023-05-14	WP2308112-007													
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004													
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003													
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004													
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007													
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007													
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006													

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-GL02	ALS	2024-11-03	WP2425500	0.000134	0.00069	0.0009			0.001	<0.0030	0.00035	0.00027
SW-GL02	Flett	2024-11-03	MTWATR120524JS1-001									
SW-GL02	Flett	2024-11-03	TMWATR112524CH1-003									
SW-GL02	ALS	2024-12-02	WP2426974	0.000143	0.00087	0.00104			0.0019	<0.0030	<0.00030	0.00034
SW-GL02	Flett	2024-12-02	TMWATR012125CH1-001									
SW-GL02	Flett	2024-12-02	MTWATR121924JS1-001									
SW-GL08	SGS	2022-11-07	CA15216-NOV22	0.00012	0.00012	0.00011	0.00011	0.00013	< 0.002	< 0.002	< 0.002	< 0.002
SW-GL-B	ALS	2023-06-10	WP2311799-002	0.000072	<0.00050	0.0005			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2023-07-17	WP2316174-004	0.000036	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2023-08-14	WP2319972	0.00004	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2023-08-14	WP2319972-002									
SW-GL-B	ALS	2023-09-02	WP2322077-008	0.000037	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2023-10-13	WP2326557-002	0.000034	<0.00050	<0.00050			0.0011	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2023-11-02	WP2328687	0.000033	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2023-11-02	WP2328687-001									
SW-GL-B	ALS	2024-02-06	WP2403186	0.000046	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2024-02-06	WP2403186-002									
SW-GL-B	ALS	2024-03-01	WP2405262-002									
SW-GL-B	ALS	2024-03-01	WP2405262	0.000043	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2024-04-02	WP2407730	0.000053	<0.00050	<0.00050			0.0011	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2024-04-02	WP2407730-002									
SW-GL-B	ALS	2024-05-27	WP2413499	0.000035	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2024-06-20	WP2415789	0.000045	<0.00050	<0.0005			<0.0010	<0.003	<0.00030	<0.0002
SW-GL-B	ALS	2024-07-08	WP2417173	0.000055	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2024-08-11	WP2419573	0.000045	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	ALS	2024-09-07	WP2421728	0.000077	0.00056	0.00072			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	Flett	2024-09-07	TMWATR092924CH1-005									
SW-GL-B	Flett	2024-09-07	MTWATR100124JS1-006									
SW-GL-B	ALS	2024-10-10	WP2424082	0.000043	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	Flett	2024-10-10	TMWATR102824ZB1-018									
SW-GL-B	Flett	2024-10-10	MTWATR112724JS1-018									
SW-GL-B	ALS	2024-11-03	WP2425500	0.000042	<0.00050	<0.00050			<0.0010	<0.0030	<0.00030	<0.00020
SW-GL-B	Flett	2024-11-03	MTWATR120524JS1-008									
SW-GL-B	Flett	2024-11-03	TMWATR112524CH1-009									
SW-TR	SGS	2022-05-28		0.000066	0.00064	0.00073	0.00027	0.00029	0.008	0.007	< 0.002	< 0.002
SW-TR	SGS	2022-07-20	CA15356-JUL22	0.00007	0.00112	0.00075	0.0005	0.0006	0.009	0.014	< 0.002	< 0.002
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.000094	0.00053	0.00074	0.00033	0.00045	0.006	0.005	< 0.002	< 0.002
SW-TR	SGS	2022-09-21	CA13964-SEP22	0.000066	0.00061	0.00071	0.00032	0.00046	0.007	0.005	< 0.002	< 0.002
SW-TR	SGS	2022-10-12	CA15286-OCT22	0.00008	0.00087	0.0007	0.00041	0.00041	0.005	0.004	< 0.002	< 0.002
SW-TR	SGS	2023-01-18	CA13675-JAN23	0.000207	0.00099	0.00146	0.00052	0.00074	0.003	0.007	< 0.002	< 0.002
SW-TR	SGS	2023-02-13	CA15347-FEB23	0.00236	0.00222	0.0161	0.00084	0.00584	0.008	0.047	< 0.002	< 0.002
SW-TR	SGS	2023-03-29	CA15003-APR23	0.00033	0.00211	0.00248	0.00091	0.00112	0.012	0.015	< 0.002	< 0.002
SW-TR	SGS	2023-04-10	CA15222-APR23	0.00029	0.00159	0.00233	0.00077	0.00107	0.011	0.012	< 0.002	< 0.002
SW-TR	ALS	2023-05-14	WP2308112									
SW-TR	ALS	2023-05-14	WP2308112	0.000067	0.00083	0.00107			0.0037	0.0034	0.00031	0.00029
SW-TR	ALS	2023-05-14	WP2308112-007									
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-004									
SW-TR	Flett	2023-05-19	TMWATR060923ZB1-003									
SW-TR	Flett	2023-05-19	MTWATR060823JS1-004									
SW-TR	Flett	2023-06-05	MTWATR062123JS3-007									
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-007									
SW-TR	Flett	2023-06-05	MTWATR062123JS3-006									

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006											
SW-TR	ALS	2023-06-05	WP2310937-001	5.31	4.62	22.4	20	<1.0	<1.0	<1.0	<1.0	<1.0	0.467	0.522
SW-TR	ALS	2023-07-16	WP2316171	5.05	4.82	16.4	14.4	<1.0	<1.0	<1.0	<1.0	<1.0	0.589	0.961
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007											
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005											
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006											
SW-TR	ALS	2023-07-16	WP2316171-003											
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008											
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010											
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007											
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009											
SW-TR	ALS	2023-08-06	WP2318603-008	4.52	4.55	19.5	14.9	<1.0	<1.0	<1.0	<1.0	<1.0	0.681	0.617
SW-TR	ALS	2023-09-02	WP2322077-010	4.8	4.76	21.5	11.8	<1.0	<1.0	<1.0	<1.0	<1.0	0.517	0.526
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006											
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005											
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006											
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006											
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006											
SW-TR	ALS	2023-10-14	WP2326559-002	3.75	4.61	8.9	13.6	<1.0	<1.0	<1.0	<1.0	<1.0	0.508	0.503
SW-TR	ALS	2023-11-03	WP2328799	4.99	4.75	0.6	19.4	<1.0	<1.0	<1.0	<1.0	<1.0	0.601	1.1
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005											
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005											
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004											
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004											
SW-TR	ALS	2023-11-03	WP2328799-001											
SW-TR	ALS	2023-12-09	WP2332240	5.61	4.88	0.4	32.2	<1.0	<1.0	<1.0	<1.0	<1.0	0.71	0.84
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005											
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004											
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004											
SW-TR	ALS	2023-12-09	WP2332240-005											
SW-TR	ALS	2024-01-13	WP2401043	5.15	4.85	0.4	49.7	1.6	<1.0	<1.0	<1.0	1.6	1.23	2.23
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004											
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005											
SW-TR	ALS	2024-01-13	WP2401043-001											
SW-TR	ALS	2024-02-05	WP2402956	4.82	4.76	0.1	55.5	<1.0	<1.0	<1.0	<1.0	<1.0	1.48	1.58
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005											
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004											
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004											
SW-TR	ALS	2024-02-05	WP2402956-002											
SW-TR	ALS	2024-04-04	WP2408018	4.85	4.81	0.6	33.4	<1.0	<1.0	<1.0	<1.0	1	1.49	1.58
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003											
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003											
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002											
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002											
SW-TR	ALS	2024-04-04	WP2408018-002											
SW-TR	ALS	2024-05-21	WP2412814	4.43	4.36	14.4	18.3	<1.0	<1.0	<1.0	<1.0	<1.0	0.474	0.488
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015											
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015											
SW-TR	ALS	2024-06-18	WP2415532											
SW-TR	ALS	2024-06-18	WP2415532	3.86	4.38	16.8	17.3	<1.0	<1.0	<1.0	<1.0	<1.0	0.487	0.487
SW-TR	ALS	2024-06-18	WP2415532		5.34		<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.0010	<0.003
SW-TR	ALS	2024-06-18	WP2415532	3.86	4.37	16.8	18.5	<1.0	<1.0	<1.0	<1.0	<1.0	0.494	0.482

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006												
SW-TR	ALS	2023-06-05	WP2310937-001		0.017	<0.0010		0.00018	0.00016	0.00544	0.0057	0.00632	0.00628	<0.000020	0.000029
SW-TR	ALS	2023-07-16	WP2316171			<0.0010	0.053	0.00016	0.00022	0.00704	0.00803	0.00617	0.0144	0.000026	0.000047
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007												
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005												
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006												
SW-TR	ALS	2023-07-16	WP2316171-003		0.053										
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008												
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010												
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007												
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009												
SW-TR	ALS	2023-08-06	WP2318603-008		<0.010	<0.0010		0.00014	0.00014	0.00638	0.00626	0.00518	0.00466	0.000029	0.000028
SW-TR	ALS	2023-09-02	WP2322077-010		0.045	<0.0010		0.00012	0.00015	0.0063	0.00644	0.00475	0.00544	0.000031	0.000024
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006												
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005												
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006												
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006												
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006												
SW-TR	ALS	2023-10-14	WP2326559-002		0.0205	<0.0010		0.00015	0.00015	0.00548	0.00534	0.00408	0.00394	0.00002	0.000022
SW-TR	ALS	2023-11-03	WP2328799			<0.0010	0.0606	0.00017	0.00019	0.0066	0.00716	0.00513	0.00994	0.000034	0.00004
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005												
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005												
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004												
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004												
SW-TR	ALS	2023-11-03	WP2328799-001		0.0606										
SW-TR	ALS	2023-12-09	WP2332240			<0.0010	0.0822	0.00022	0.00022	0.00897	0.00925	0.0069	0.00726	0.000033	0.000021
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005												
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004												
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004												
SW-TR	ALS	2023-12-09	WP2332240-005		0.0822										
SW-TR	ALS	2024-01-13	WP2401043			<0.0010	0.183	0.0003	0.00042	0.0154	0.0166	0.0132	0.0194	0.000042	0.000077
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004												
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005												
SW-TR	ALS	2024-01-13	WP2401043-001		0.183										
SW-TR	ALS	2024-02-05	WP2402956			<0.0010	0.0886	0.00034	0.0004	0.0164	0.0177	0.0125	0.0139	0.000054	0.000062
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005												
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004												
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004												
SW-TR	ALS	2024-02-05	WP2402956-002		0.0886										
SW-TR	ALS	2024-04-04	WP2408018			<0.0010	0.561	0.00032	0.00034	0.0154	0.0157	0.0159	0.0172	0.000043	0.000051
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003												
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003												
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002												
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002												
SW-TR	ALS	2024-04-04	WP2408018-002		0.561										
SW-TR	ALS	2024-05-21	WP2412814			<0.0010	0.0095	0.00019	0.00017	0.00502	0.00545	0.0056	0.00607	0.00003	0.000026
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015												
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015												
SW-TR	ALS	2024-06-18	WP2415532												
SW-TR	ALS	2024-06-18	WP2415532			<0.0010	0.0052	0.00017	0.00017	0.00536	0.00552	0.00614	0.00604	0.000021	0.000027
SW-TR	ALS	2024-06-18	WP2415532				<0.0050	<0.00010	<0.0001	<0.00010	<0.0001	<0.00010	<0.00010	<0.000020	<0
SW-TR	ALS	2024-06-18	WP2415532			<0.0010	0.0055	0.00016	0.00016	0.00541	0.00541	0.00578	0.006	0.000021	<0.000020

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006													
SW-TR	ALS	2023-06-05	WP2310937-001	<0.000050	<0.000050	<0.010	<0.010	0.0000193	0.0000218	2.14	2.22	26	0.000017	0.000021		0.11
SW-TR	ALS	2023-07-16	WP2316171	<0.000050	<0.000050	<0.010	<0.010	0.0000191	0.0000397	2.26	2.33	45.4	0.000024	0.000157		0.1
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007													
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005													
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006													
SW-TR	ALS	2023-07-16	WP2316171-003													
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008													
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010													
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007													
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009													
SW-TR	ALS	2023-08-06	WP2318603-008	<0.000050	<0.000050	<0.010	<0.010	0.0000238	0.0000215	2.01	2.08	39.4	<0.000010	<0.000010		<0.10
SW-TR	ALS	2023-09-02	WP2322077-010	<0.000050	<0.000050	<0.010	<0.010	0.0000181	0.0000173	1.94	1.87	40.2	0.000011	0.000014		<0.10
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006													
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005													
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006													
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006													
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006													
SW-TR	ALS	2023-10-14	WP2326559-002	<0.000050	<0.000050	<0.010	<0.010	0.0000146	0.0000163	1.82	1.97	38.1	<0.000010	0.000011		0.39
SW-TR	ALS	2023-11-03	WP2328799	<0.000050	<0.000050	<0.010	<0.010	0.0000158	0.0000363	2.43	2.62	48.3	0.000016	0.000117		1.04
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005													
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005													
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004													
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004													
SW-TR	ALS	2023-11-03	WP2328799-001													
SW-TR	ALS	2023-12-09	WP2332240	<0.000050	<0.000050	<0.010	<0.010	0.0000364	0.0000311	3.93	4.04	67.2	0.000032	0.000048		0.31
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005													
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004													
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004													
SW-TR	ALS	2023-12-09	WP2332240-005													
SW-TR	ALS	2024-01-13	WP2401043	<0.000050	<0.000050	<0.010	<0.010	0.0000311	0.0000819	7.03	8.88	100	0.000031	0.000464		0.94
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004													
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005													
SW-TR	ALS	2024-01-13	WP2401043-001													0
SW-TR	ALS	2024-02-05	WP2402956	<0.000050	<0.000050	<0.010	0.01	0.0000337	0.0000474	8.28	8.97	114	0.000024	0.000032		0.53
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005													
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004													
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004													
SW-TR	ALS	2024-02-05	WP2402956-002													
SW-TR	ALS	2024-04-04	WP2408018	<0.000050	<0.000050	<0.010	<0.010	0.0000245	0.0000374	8.41	8.12	124	0.000046	0.000077		2.46
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003													
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003													
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002													
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002													
SW-TR	ALS	2024-04-04	WP2408018-002													
SW-TR	ALS	2024-05-21	WP2412814	<0.000050	<0.000050	<0.010	<0.010	0.0000173	0.0000201	2.21	2.34	45.8	0.00002	0.000028		<0.10
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015													
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015													
SW-TR	ALS	2024-06-18	WP2415532													
SW-TR	ALS	2024-06-18	WP2415532	<0.000050	<0	<0.010	<0.01	0.0000157	0.0000188	2.11	2.11	48.8	<0.000010	0.00001		<0.10
SW-TR	ALS	2024-06-18	WP2415532	<0.000050	<0	<0.010	<0.010	<0.0000050	<0	<0.050	<0.050	0.89	<0.000010	<0.000010		<0.10
SW-TR	ALS	2024-06-18	WP2415532	<0.000050	<0	<0.010	<0.01	0.0000159	0.0000146	2.13	2.02	47.8	<0.000010	<0.000010		<0.10

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006													
SW-TR	ALS	2023-06-05	WP2310937-001	0.00068	0.00065	0.00038	0.00038	27.3	0.0012	0.00065	0.001	0.0011		<0.0010		
SW-TR	ALS	2023-07-16	WP2316171	0.00093	0.00148	0.00041	0.00051	26.2	0.00078	0.00179	0.0019	0.0014		0.0012		
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007													
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005													
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006													
SW-TR	ALS	2023-07-16	WP2316171-003													
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008													
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010													
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007													
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009													
SW-TR	ALS	2023-08-06	WP2318603-008	0.00124	0.00113	0.00041	0.00041	26.1	0.00105	0.00141	0.0016	0.0012		0.0016		
SW-TR	ALS	2023-09-02	WP2322077-010	0.00097	0.00112	0.00035	0.00037	22.7	0.00073	0.00088	0.0013	<0.0010		0.0011		
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006													
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005													
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006													
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006													
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006													
SW-TR	ALS	2023-10-14	WP2326559-002	0.00079	0.00076	0.00035	0.00035	26.5	0.0005	0.00052	<0.0010	<0.0010		<0.0010		
SW-TR	ALS	2023-11-03	WP2328799	0.00087	0.00174	0.00035	0.00048	32.8	0.00069	0.00249	0.0015	0.0012		0.001		
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005													
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005													
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004													
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004													
SW-TR	ALS	2023-11-03	WP2328799-001													
SW-TR	ALS	2023-12-09	WP2332240	0.00103	0.00124	0.00057	0.00066	33.9	0.00109	0.00086	<0.0010	0.0011		<0.0010		
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005													
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004													
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004													
SW-TR	ALS	2023-12-09	WP2332240-005													
SW-TR	ALS	2024-01-13	WP2401043	0.0027	0.00428	0.00112	0.00129	55.8	0.00116	0.00385	<0.0010	0.0015		<0.0010		
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004													
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005													
SW-TR	ALS	2024-01-13	WP2401043-001	.00270 0.0027	.00428 0.00428											
SW-TR	ALS	2024-02-05	WP2402956	0.00202	0.00221	0.00122	0.00123	63.4	0.00102	0.00192	<0.0010	0.0163		0.0012		
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005													
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004													
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004													
SW-TR	ALS	2024-02-05	WP2402956-002													
SW-TR	ALS	2024-04-04	WP2408018	0.00196	0.00214	0.00122	0.00126	67.2	0.00106	0.00137	0.0013	0.0017		0.0011		
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003													
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003													
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002													
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002													
SW-TR	ALS	2024-04-04	WP2408018-002													
SW-TR	ALS	2024-05-21	WP2412814	0.00064	0.00068	0.0004	0.00041	32.5	0.00087	0.00095	<0.0010	<0.0010		<0.0010		
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015													
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015													
SW-TR	ALS	2024-06-18	WP2415532	0.00072	0.0007											
SW-TR	ALS	2024-06-18	WP2415532	0.00077	0.0008	0.00037	0.0004	31	0.00062	0.00062	<0.0010	<0.0010		<0.0010		
SW-TR	ALS	2024-06-18	WP2415532	<0.00010	<0.00010	<0.00010	<0.00010	<1.0	<0.00020	<0.0005	<0.0010	<0.0010		<0.0010		
SW-TR	ALS	2024-06-18	WP2415532	0.00072	0.0007	0.00038	0.00038	31.9	0.00063	0.00062	<0.0010	<0.0010		<0.0010		

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006												
SW-TR	ALS	2023-06-05	WP2310937-001	8.42	8.9	0.718	0.829	0.000332	0.00034	0.0011	0.0015	0.746	0.816	0.014	0.0143
SW-TR	ALS	2023-07-16	WP2316171	9.42	9.56	0.996	1.32	0.000276	0.00114	0.0012	0.0018	0.917	0.908	0.0182	0.0208
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007												
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005												
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006												
SW-TR	ALS	2023-07-16	WP2316171-003												
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008												
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010												
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007												
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009												
SW-TR	ALS	2023-08-06	WP2318603-008	8.3	8.24	0.884	0.84	0.000369	0.000414	0.0011	0.0015	0.797	0.74	0.0206	0.0179
SW-TR	ALS	2023-09-02	WP2322077-010	8.43	7.94	0.743	0.77	0.00031	0.000336	0.0014	0.0013	0.871	0.795	0.0168	0.0185
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006												
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005												
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006												
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006												
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006												
SW-TR	ALS	2023-10-14	WP2326559-002	8.39	8.31	0.693	0.668	0.000287	0.000285	<0.0010	<0.0010	0.934	0.824	0.0156	0.0147
SW-TR	ALS	2023-11-03	WP2328799	10.3	10.8	0.726	1.17	0.000184	0.000766	0.0013	0.0014	1.02	1.04	0.0177	0.0203
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005												
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005												
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004												
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004												
SW-TR	ALS	2023-11-03	WP2328799-001												
SW-TR	ALS	2023-12-09	WP2332240	14.7	15.5	1.81	2.03	0.000497	0.000545	0.0018	0.0022	1.18	1.32	0.0242	0.0265
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005												
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004												
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004												
SW-TR	ALS	2023-12-09	WP2332240-005												
SW-TR	ALS	2024-01-13	WP2401043	26.2	30.9	3.68	3.75	0.000599	0.0022	0.0022	0.0035	2.1	2.11	0.0423	0.0473
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004												
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005												
SW-TR	ALS	2024-01-13	WP2401043-001												
SW-TR	ALS	2024-02-05	WP2402956	31.6	33.7	3.7	3.82	0.0009	0.00103	0.003	0.0041	2.66	2.74	0.0451	0.0479
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005												
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004												
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004												
SW-TR	ALS	2024-02-05	WP2402956-002												
SW-TR	ALS	2024-04-04	WP2408018	31.4	30.6	3.75	4.16	0.00066	0.000832	0.0039	0.0028	2.53	2.5	0.0528	0.0533
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003												
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003												
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002												
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002												
SW-TR	ALS	2024-04-04	WP2408018-002												
SW-TR	ALS	2024-05-21	WP2412814	8.57	9.06	0.817	0.851	0.000417	0.00043	<0.0010	<0.0010	0.742	0.781	0.0182	0.0197
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015												
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015												
SW-TR	ALS	2024-06-18	WP2415532												
SW-TR	ALS	2024-06-18	WP2415532	8.06	8.15	1	1.04	0.00046	0.00045	0.0012	0.0012	0.678	0.7	0.015	0.0155
SW-TR	ALS	2024-06-18	WP2415532	<0.50	<0.50	<0.010	<0.01	<0.000050	<0	<0.0010	<0.001	<0.0050	<0.005	<0.00010	<0.0001
SW-TR	ALS	2024-06-18	WP2415532	8.16	7.89	1	1.03	0.000455	0.000449	0.0013	0.0011	0.69	0.692	0.0152	0.015

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006				5.96								
SW-TR	ALS	2023-06-05	WP2310937-001	0.0000057		<0.0000050		0.000059	0.000065	0.00078	0.00078	0.0125	0.0125	<0.0010	
SW-TR	ALS	2023-07-16	WP2316171	0.000005		0.0000075		0.000062	0.000209	0.00093	0.00136	<0.0050	<0.0051	<0.0010	
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007		0.852										
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005				8.71								
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006		0.779										
SW-TR	ALS	2023-07-16	WP2316171-003												
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008				7.43								
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010		0.41										
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007				7.31								
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009		0.407										
SW-TR	ALS	2023-08-06	WP2318603-008	0.0000059		0.0000064		<0.000050	<0.000050	0.00103	0.00101	<0.0050	<0.0051	<0.0010	
SW-TR	ALS	2023-09-02	WP2322077-010	0.000007		<0.0000050		<0.000050	0.000212	0.00086	0.0009	<0.0050	<0.0051	<0.0010	
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006				6.03								
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005				6.14								
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006		0.339										
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006				4.51								
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006		0.318										
SW-TR	ALS	2023-10-14	WP2326559-002	<0.0000050		<0.0000050		0.000054	0.000056	0.00079	0.00075	<0.0050	<0.0051	<0.0010	
SW-TR	ALS	2023-11-03	WP2328799	<0.0000050		<0.0000050		0.000064	0.000148	0.00081	0.0013	0.0142	0.0142	<0.0010	
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005				10.5								
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005		1.02										
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004				10.5								
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004		1.05										
SW-TR	ALS	2023-11-03	WP2328799-001												
SW-TR	ALS	2023-12-09	WP2332240	<0.0000050		<0.0000050		0.000083	0.00012	0.0013	0.00138	<0.0050	<0.0051	<0.0010	
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005				4.96								
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004				4.75								
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004		1.14										
SW-TR	ALS	2023-12-09	WP2332240-005												
SW-TR	ALS	2024-01-13	WP2401043	<0.0000050		0.0000064		0.000102	0.000344	0.00215	0.00327	<0.0050	<0.0051	<0.0010	
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004				11.6								
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005		2.74										
SW-TR	ALS	2024-01-13	WP2401043-001												
SW-TR	ALS	2024-02-05	WP2402956	<0.0000050		0.0000066		0.000118	0.00015	0.00249	0.00248	0.0137	0.0137	<0.0010	
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005				5.05								
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004				5.03								
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004		2.74										
SW-TR	ALS	2024-02-05	WP2402956-002												
SW-TR	ALS	2024-04-04	WP2408018	<0.0000050		<0.0000050		0.000137	0.000178	0.00248	0.00247	0.0314	0.0314	<0.0010	0.067
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003				5.91								
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003		2.16										
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002				6.35								
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002		2.21										
SW-TR	ALS	2024-04-04	WP2408018-002												
SW-TR	ALS	2024-05-21	WP2412814	0.0000059		0.0000071		0.000069	0.000081	0.00079	0.00082	<0.0050	<0.0051	<0.0010	<0.03
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015				8.49								
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015		0.183										
SW-TR	ALS	2024-06-18	WP2415532												
SW-TR	ALS	2024-06-18	WP2415532	0.0000058		0.000008		0.000052	<0	0.00087	0.00081	0.0058	0.0058	<0.0010	
SW-TR	ALS	2024-06-18	WP2415532	<0.0000050		<0		<0.000050	<0.000050	<0.00050	<0.0005	<0.0050	<0.0051	<0.0010	
SW-TR	ALS	2024-06-18	WP2415532	0.0000064		0.000008		<0.000050	0.000052	0.0008	0.0008	0.0129	0.0129	<0.0010	

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Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006												
SW-TR	ALS	2023-06-05	WP2310937-001	<0.030		0.024	<0.030	0.131	0.131		0.00051	0.00059	0.000124	0.000116	1.65
SW-TR	ALS	2023-07-16	WP2316171	<0.030	0.201	0.12	0.201	0.112	0.337		0.00064	0.00195	0.000184	0.000235	0.362
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007												
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005												
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006												
SW-TR	ALS	2023-07-16	WP2316171-003												
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008												
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010												
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007												
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009												
SW-TR	ALS	2023-08-06	WP2318603-008	0.042		0.0535	0.038	<0.050	<0.050		<0.00020	<0.00020	0.00019	0.000188	0.173
SW-TR	ALS	2023-09-02	WP2322077-010	<0.030		0.0395	0.049	<0.050	<0.050		<0.00020	0.00023	0.000147	0.000176	0.505
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006												
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005												
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006												
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006												
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006												
SW-TR	ALS	2023-10-14	WP2326559-002	<0.030		10	<0.030	0.234	0.238		<0.00020	0.00021	0.000134	0.000136	0.645
SW-TR	ALS	2023-11-03	WP2328799	<0.030	0.103	0.114	0.103	0.147	0.196		0.00037	0.00089	0.000126	0.000189	0.506
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005												
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005												
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004												
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004												
SW-TR	ALS	2023-11-03	WP2328799-001												
SW-TR	ALS	2023-12-09	WP2332240	<0.030	0.033	0.0429	<0.050	0.176	0.169		0.0008	0.00091	0.000209	0.000192	0.873
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005												
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004												
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004												
SW-TR	ALS	2023-12-09	WP2332240-005				0.033								
SW-TR	ALS	2024-01-13	WP2401043	<0.030	0.121	0.0987	0.121	0.331	0.5		0.00097	0.00239	0.000298	0.000417	2.87
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004												
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005												
SW-TR	ALS	2024-01-13	WP2401043-001	<0.050 <0.030											
SW-TR	ALS	2024-02-05	WP2402956	0.04	0.062	0.053	0.062	0.195	0.188		0.00043	0.00054	0.000383	0.000377	5.19
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005												
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004												
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004												
SW-TR	ALS	2024-02-05	WP2402956-002												
SW-TR	ALS	2024-04-04	WP2408018	0.067	0.077	0.0887	0.077	0.396	0.344		0.00148	0.00176	0.000318	0.000418	4.44
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003												
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003												
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002												
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002												
SW-TR	ALS	2024-04-04	WP2408018-002												
SW-TR	ALS	2024-05-21	WP2412814	<0.030	0.052	0.0244	0.052	0.067	0.087		0.00034	0.00041	0.000134	0.000204	3.42
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015												
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015												
SW-TR	ALS	2024-06-18	WP2415532	<0.030	<0.03		<0.05								
SW-TR	ALS	2024-06-18	WP2415532	<0.030	<0.03	0.0268	<0.05	<0.050	<0.05		<0.00020	0.00021	0.000192	<0	3.25
SW-TR	ALS	2024-06-18	WP2415532	<0.030	<0.03	<0.0020	<0.05	<0.050	<0.05		<0.00020	<0.00020	<0.000050	<0	<0.050
SW-TR	ALS	2024-06-18	WP2415532	<0.050		0.0371		<0.050	<0.05		<0.00020	<0.00020	<0.000050	<0	3.32

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Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006													
SW-TR	ALS	2023-06-05	WP2310937-001	1.8	<0.000010	<0.000010	0.823	0.852	30.9	3.4	0.0121	0.013	<0.50	0.91	0.85	<0.00020
SW-TR	ALS	2023-07-16	WP2316171	0.72	<0.000010	<0.000010	0.833	0.902	84.5	175	0.0115	0.014	0.52	0.64	0.48	<0.00020
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007													
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005													
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006													
SW-TR	ALS	2023-07-16	WP2316171-003													
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008													
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010													
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007													
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009													
SW-TR	ALS	2023-08-06	WP2318603-008	0.21	<0.000010	<0.000010	0.364	0.347	31.3	4.4	0.0099	0.00917	<0.50	<0.50	<0.30	<0.00020
SW-TR	ALS	2023-09-02	WP2322077-010	0.58	<0.000010	<0.000010	0.737	0.703	82.5	<1.0	0.00946	0.0113	<0.50	0.51	<0.30	<0.00020
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006													
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005													
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006													
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006													
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006													
SW-TR	ALS	2023-10-14	WP2326559-002	0.72	<0.000010	<0.000010	1.03	0.81	53.8	1.2	0.0103	0.00928	0.55	<0.50	0.37	<0.00020
SW-TR	ALS	2023-11-03	WP2328799	0.96	<0.000010	<0.000010	1.14	3.21	83.2	66.7	0.0114	0.0131	0.85	1.93	1.66	<0.00020
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005													
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005													
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004													
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004													
SW-TR	ALS	2023-11-03	WP2328799-001													
SW-TR	ALS	2023-12-09	WP2332240	1.09	<0.000010	<0.000010	1.49	2.25	114	14.7	0.0168	0.0173	0.55	0.57	0.3	<0.00020
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005													
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004													
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004													
SW-TR	ALS	2023-12-09	WP2332240-005													
SW-TR	ALS	2024-01-13	WP2401043	4.39	<0.000010	0.000021	2.51	2.99	187	226	0.0308	0.0344	0.98	1.13	0.33	<0.00020
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004													
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005													
SW-TR	ALS	2024-01-13	WP2401043-001													
SW-TR	ALS	2024-02-05	WP2402956	5.6	<0.000010	<0.000010	2.58	2.92	216	3.1	0.0346	0.0389	0.78	1.47	<0.30	<0.00020
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005													
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004													
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004													
SW-TR	ALS	2024-02-05	WP2402956-002													
SW-TR	ALS	2024-04-04	WP2408018	5.32	<0.000010	<0.000010	2.73	2.43	215	16.4	0.0357	0.0339	0.87	1.11	0.87	<0.00020
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003													
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003													
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002													
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002													
SW-TR	ALS	2024-04-04	WP2408018-002													
SW-TR	ALS	2024-05-21	WP2412814	3.53	<0.000010	<0.000010	0.777	0.807	61.7	1.4	0.0112	0.0114	<0.50	<0.50	0.73	<0.00020
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015													
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015													
SW-TR	ALS	2024-06-18	WP2415532													
SW-TR	ALS	2024-06-18	WP2415532	3.58	<0.000010	<0	0.814	0.851	49	4	0.0115	0.0113	<0.50	<0.50	<0.30	<0.00020
SW-TR	ALS	2024-06-18	WP2415532	<0.10	<0.000010	<0	<0.050	<0.05	<3.0	<1.0	<0.00020	<0.0002	<0.50	<0.50	<0.30	<0.00020
SW-TR	ALS	2024-06-18	WP2415532	3.41	<0.000010	<0	0.732	0.721	90	7.4	0.011	0.0111	<0.50	<0.50	<0.30	<0.00020

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Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006													
SW-TR	ALS	2023-06-05	WP2310937-001	<0.00020	<0.000010	<0.000010	0.00011	0.0001	<0.00010	<0.00010	0.00515	0.00597		<0.00010	<0.00010	0.000064
SW-TR	ALS	2023-07-16	WP2316171	<0.00020	<0.000010	0.000011	0.00015	0.00018	0.00453	<0.00010	0.00843	0.025		<0.00010	<0.00010	0.000081
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007													
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005													
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006													
SW-TR	ALS	2023-07-16	WP2316171-003													
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008													
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010													
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007													
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009													
SW-TR	ALS	2023-08-06	WP2318603-008	<0.00020	<0.000010	<0.000010	0.00021	0.00019	<0.00010	<0.00010	0.0143	0.0129		<0.00010	<0.00010	0.000131
SW-TR	ALS	2023-09-02	WP2322077-010	<0.00020	<0.000010	<0.000010	0.00012	0.00014	<0.00010	<0.00010	0.00738	0.00832		<0.00010	<0.00010	0.000081
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006													
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005													
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006													
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006													
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006													
SW-TR	ALS	2023-10-14	WP2326559-002	<0.00020	<0.000010	<0.000010	0.00011	<0.00010	<0.00010	<0.00010	0.00604	0.00635		<0.00010	<0.00010	0.000063
SW-TR	ALS	2023-11-03	WP2328799	<0.00020	<0.000010	0.000014	0.00012	0.00016	<0.00010	0.00219	0.00757	0.0295		<0.00010	<0.00010	0.000067
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005													
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005													
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004													
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004													
SW-TR	ALS	2023-11-03	WP2328799-001													
SW-TR	ALS	2023-12-09	WP2332240	<0.00020	0.000014	0.000013	0.00017	0.00017	<0.00010	<0.00010	0.0101	0.0144		<0.00010	<0.00010	0.00009
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005													
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004													
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004													
SW-TR	ALS	2023-12-09	WP2332240-005													
SW-TR	ALS	2024-01-13	WP2401043	<0.00020	0.000016	0.000026	0.00031	0.00037	<0.00010	0.00014	0.0205	0.0676		<0.00010	<0.00010	0.000153
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004													
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005													
SW-TR	ALS	2024-01-13	WP2401043-001													
SW-TR	ALS	2024-02-05	WP2402956	<0.00020	0.000012	0.000013	0.00035	0.00031	<0.00010	<0.00010	0.0214	0.0236		<0.00010	<0.00010	0.000162
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005													
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004													
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004													
SW-TR	ALS	2024-02-05	WP2402956-002													
SW-TR	ALS	2024-04-04	WP2408018	<0.00020	0.000026	0.000016	0.00033	0.00024	0.0001	<0.00010	0.0237	0.0307		<0.00010	<0.00010	0.000158
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003													
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003													
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002													
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002													
SW-TR	ALS	2024-04-04	WP2408018-002													
SW-TR	ALS	2024-05-21	WP2412814	<0.00020	<0.000010	<0.000010	0.00014	0.00013	<0.00010	<0.00010	0.00444	0.00556		<0.00010	<0.00010	0.000077
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015													
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015													
SW-TR	ALS	2024-06-18	WP2415532													
SW-TR	ALS	2024-06-18	WP2415532	<0.0002	<0.000010	<0	0.00014	0.00013	<0.00010	<0.0001	0.0042	0.0044		<0.00010	<0.0001	0.000077
SW-TR	ALS	2024-06-18	WP2415532	<0.0002	<0.000010	<0	<0.00010	<0.00010	<0.00010	<0.0001	<0.00030	<0.0003		<0.00010	<0.0001	<0.000010
SW-TR	ALS	2024-06-18	WP2415532	<0.0002	<0.000010	<0	0.00014	0.00013	<0.00010	<0.0001	0.00419	0.00423		<0.00010	<0.0001	0.000074

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-TR	Flett	2023-06-05	TMWATR062023ZB1-006									
SW-TR	ALS	2023-06-05	WP2310937-001	0.000079	0.0009	0.00107			0.0054	0.0049	0.00037	0.00032
SW-TR	ALS	2023-07-16	WP2316171	0.000218	0.00065	0.00163			0.0055	0.0071	0.00037	0.00036
SW-TR	Flett	2023-07-16	MTWATR080223JS1-007									
SW-TR	Flett	2023-07-16	TMWATR080423ZB1-005									
SW-TR	Flett	2023-07-16	MTWATR080223JS1-006									
SW-TR	ALS	2023-07-16	WP2316171-003									
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-008									
SW-TR	Flett	2023-08-06	MTWATR082323JS1-010									
SW-TR	Flett	2023-08-06	TMWATR082323ZB1-007									
SW-TR	Flett	2023-08-06	MTWATR082323JS1-009									
SW-TR	ALS	2023-08-06	WP2318603-008	0.000142	0.00073	0.00076			0.0061	0.0051	0.00043	0.0003
SW-TR	ALS	2023-09-02	WP2322077-010	0.000086	0.00052	0.00071			0.0044	0.0046	0.00033	0.0003
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-006									
SW-TR	Flett	2023-09-03	TMWATR091823ZB1-005									
SW-TR	Flett	2023-09-03	MTWATR091323JS2-006									
SW-TR	Flett	2023-10-14	TMWATR110223ZB1-006									
SW-TR	Flett	2023-10-14	MTWATR111923JS1-006									
SW-TR	ALS	2023-10-14	WP2326559-002	0.000062	0.00059	0.00068			0.0053	0.0057	0.00032	0.00023
SW-TR	ALS	2023-11-03	WP2328799	0.000209	0.00092	0.00188			0.006	0.0088	0.00035	0.00032
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-005									
SW-TR	Flett	2023-11-03	MTWATR112023JS1-005									
SW-TR	Flett	2023-11-03	TMWATR110923ZB2-004									
SW-TR	Flett	2023-11-03	MTWATR112023JS1-004									
SW-TR	ALS	2023-11-03	WP2328799-001									
SW-TR	ALS	2023-12-09	WP2332240	0.000112	0.0009	0.00125			0.0138	0.0102	0.00052	0.0004
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-005									
SW-TR	Flett	2023-12-09	TMWATR121923ZB1-004									
SW-TR	Flett	2023-12-09	MTWATR122023JS1-004									
SW-TR	ALS	2023-12-09	WP2332240-005									
SW-TR	ALS	2024-01-13	WP2401043	0.000426	0.00164	0.00313			0.0144	0.0289	0.00076	0.0007
SW-TR	Flett	2024-01-13	TMWATR012524JS2-004									
SW-TR	Flett	2024-01-13	MTWATR020924JS1-005									
SW-TR	ALS	2024-01-13	WP2401043-001									
SW-TR	ALS	2024-02-05	WP2402956	0.000168	0.00152	0.00177			0.0168	0.02	0.00084	0.00073
SW-TR	Flett	2024-02-05	TMWATR022824CH1-005									
SW-TR	Flett	2024-02-05	TMWATR022824CH1-004									
SW-TR	Flett	2024-02-05	MTWATR030824JS1-004									
SW-TR	ALS	2024-02-05	WP2402956-002									
SW-TR	ALS	2024-04-04	WP2408018	0.000177	0.00157	0.0018			0.0157	0.0154	0.00084	0.00049
SW-TR	Flett	2024-04-04	TMWATR042224CH1-003									
SW-TR	Flett	2024-04-04	MTWATR041624JS1-003									
SW-TR	Flett	2024-04-04	TMWATR042224CH1-002									
SW-TR	Flett	2024-04-04	MTWATR041624JS1-002									
SW-TR	ALS	2024-04-04	WP2408018-002									
SW-TR	ALS	2024-05-21	WP2412814	0.000076	0.00091	0.00113			0.0043	0.0047	0.00038	0.00034
SW-TR	Flett	2024-05-21	TMWATR061924CH1-015									
SW-TR	Flett	2024-05-21	MTWATR061024JS1-015									
SW-TR	ALS	2024-06-18	WP2415532									
SW-TR	ALS	2024-06-18	WP2415532	0.000079	0.00082	0.00095			0.005	0.0037	0.00038	0.00035
SW-TR	ALS	2024-06-18	WP2415532	<0	<0.00050	<0.0005			<0.0010	<0.003	<0.00030	<0.0002
SW-TR	ALS	2024-06-18	WP2415532	0.000077	0.00084	0.00092			0.004	<0.003	0.00038	0.00034

Note: Tabulated data here is from a direct data export provided by Great Bear Resources.

Sample Point	Data Source	Date	Lab Ref	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum - Total (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1											
SW-TR	ALS	2024-07-08	WP2417173	3.33	4.32	22.2	23.8	<1.0	<1.0	<1.0	<1.0	<1.0	0.603	0.563
SW-TR	Flett	2024-07-09	TMWATR072524CH2											
SW-TR	Flett	2024-07-09	MTWATR072424JS2											
SW-TR	ALS	2024-08-04	WP2419020											
SW-TR	ALS	2024-08-04	WP2419020	3.76	4.54	21.3	16.1	<1.0	<1.0	<1.0	<1.0	<1.0	0.65	0.673
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005											
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005											
SW-TR	ALS	2024-09-03	WP2421465											
SW-TR	ALS	2024-09-03	WP2421465	3.74	4.58	13.9	18.7	<1.0	<1.0	<1.0	<1.0	<1.0	0.63	0.648
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015											
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017											
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014											
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016											
SW-TR	ALS	2024-10-02	WP2423347	4.13	4.39	12.3	25.8	<1.0	<1.0	<1.0	<1.0	<1.0	0.774	0.813
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006											
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005											
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005											
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004											
SW-TR	ALS	2024-11-02	WP2425500	5.12	4.45	4.3	22.7	<1.0	<1.0	<1.0	<1.0	<1.0	0.889	0.837
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021											
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021											
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020											
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020											
SW-TR	ALS	2024-12-01	WP2426900	4.47	4.39	0.5	22.6	<1.0	<1.0	<1.0	<1.0	<1.0	0.649	0.648
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007											
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007											
WB-03	SGS	2022-07-13	CA15242-JUL22	7.01	6.97	22.4	<2					9		0.044
WB-04	SGS	2022-07-29		5.87	6.52	19.5	10					21		0.447

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Aluminum (0.2µm) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Antimony - Dissolved (mg/L)	Antimony - Total (mg/L)	Arsenic - Dissolved (mg/L)	Arsenic - Total (mg/L)	Barium - Dissolved (mg/L)	Barium - Total (mg/L)	Beryllium - Dissolved (mg/L)	Beryllium - Total (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1												
SW-TR	ALS	2024-07-08	WP2417173			<0.0010	0.0785	0.00017	0.00031	0.00641	0.00641	0.00679	0.00672	0.00003	0.000026
SW-TR	Flett	2024-07-09	TMWATR072524CH2												
SW-TR	Flett	2024-07-09	MTWATR072424JS2												
SW-TR	ALS	2024-08-04	WP2419020												
SW-TR	ALS	2024-08-04	WP2419020			<0.0010	0.007	0.00021	0.0002	0.00758	0.00767	0.00546	0.00549	0.000032	0.000026
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005												
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005												
SW-TR	ALS	2024-09-03	WP2421465												
SW-TR	ALS	2024-09-03	WP2421465			<0.0010	0.0125	0.00018	0.00019	0.00711	0.00665	0.00591	0.00571	0.000026	0.000029
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015												
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017												
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014												
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016												
SW-TR	ALS	2024-10-02	WP2423347			<0.0010	0.0089	0.00025	0.00023	0.00776	0.00829	0.0087	0.00913	0.00003	0.000032
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006												
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005												
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005												
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004												
SW-TR	ALS	2024-11-02	WP2425500			<0.0010	0.0301	0.00024	0.00024	0.0079	0.00778	0.00919	0.00861	0.000045	0.000036
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021												
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021												
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020												
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020												
SW-TR	ALS	2024-12-01	WP2426900			<0.0010	0.0106	0.0002	0.00023	0.00665	0.00684	0.00841	0.00828	0.000026	0.00003
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007												
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007												
WB-03	SGS	2022-07-13	CA15242-JUL22	0.034			<0.1	< 0.0009	< 0.0009	0.0025	0.0017	0.00527	0.0052	< 0.000007	< 0.000007
WB-04	SGS	2022-07-29		0.288			< 0.1	< 0.0009	< 0.0009	0.0066	0.0067	0.0166	0.0195	< 0.000007	< 0.000007

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Sample Point	Data Source	Date	Lab Ref	Bismuth - Dissolved (mg/L)	Bismuth - Total (mg/L)	Boron - Dissolved (mg/L)	Boron - Total (mg/L)	Cadmium - Dissolved (mg/L)	Cadmium - Total (mg/L)	Calcium - Dissolved (mg/L)	Calcium - Total (mg/L)	Carbon - Dissolved Organic (mg/L)	Cesium - Dissolved (mg/L)	Cesium - Total (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1													
SW-TR	ALS	2024-07-08	WP2417173	<0.000050	<0.000050	<0.010	<0.010	0.0000182	0.0000166	2.39	2.36	55	<0.000010	<0.000010		<0.10
SW-TR	Flett	2024-07-09	TMWATR072524CH2													
SW-TR	Flett	2024-07-09	MTWATR072424JS2													
SW-TR	ALS	2024-08-04	WP2419020													
SW-TR	ALS	2024-08-04	WP2419020	<0.000050	<0.000050	<0.010	<0.010	0.0000175	0.000022	2.64	2.62	52.9	0.000013	0.000014		<0.10
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005													
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005													
SW-TR	ALS	2024-09-03	WP2421465													
SW-TR	ALS	2024-09-03	WP2421465	<0.000050	<0.000050	<0.010	<0.010	0.000017	0.0000144	2.9	3.1	53.7	0.000011	0.00001		0.16
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015													
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017													
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014													
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016													
SW-TR	ALS	2024-10-02	WP2423347	<0.000050	<0.000050	<0.010	<0.010	0.0000194	0.0000179	3.35	3.5	68.9	0.000014	0.000013		0.19
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006													
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005													
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005													
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004													
SW-TR	ALS	2024-11-02	WP2425500	<0.000050	<0.000050	<0.010	<0.010	0.0000197	0.0000156	3.88	3.88	67.7	0.000017	0.000012		0.32
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021													
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021													
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020													
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020													
SW-TR	ALS	2024-12-01	WP2426900	<0.000050	<0.000050	<0.010	<0.010	0.000015	0.0000149	3.2	3.54	59.7	<0.000010	0.000014		0.21
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007													
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007													
WB-03	SGS	2022-07-13	CA15242-JUL22	< 0.00001	< 0.00001	0.004	0.004	0.000006	< 0.000003	3.13	2.86	9			25	< 1
WB-04	SGS	2022-07-29		< 0.00001	< 0.00001	0.007	0.011	0.000024	0.000015	11.6	10.6	47			97	3

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Chromium - Dissolved (mg/L)	Chromium - Total (mg/L)	Cobalt - Dissolved (mg/L)	Cobalt - Total (mg/L)	Conductivity - Lab (µS/cm)	Copper - Dissolved (mg/L)	Copper - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - SAD (mg/L)	Cyanide - Total (mg/L)	Cyanide - WAD (mg/L)	Dissolved Oxygen - Field (mg/L)	Fluoride (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1													
SW-TR	ALS	2024-07-08	WP2417173	0.00094	0.00087	0.0004	0.00039	34.2	0.00068	0.00072	0.0013	<0.0010		<0.0010		
SW-TR	Flett	2024-07-09	TMWATR072524CH2													
SW-TR	Flett	2024-07-09	MTWATR072424JS2													
SW-TR	ALS	2024-08-04	WP2419020	0.001	0.00102											
SW-TR	ALS	2024-08-04	WP2419020	0.001	0.00102	0.00045	0.00048	31	0.00052	<0.00050	0.0017	0.0014		0.0017		
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005													
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005													
SW-TR	ALS	2024-09-03	WP2421465	0.00084	0.00088											
SW-TR	ALS	2024-09-03	WP2421465	0.00084	0.00088	0.00041	0.0004	31.4	0.00056	<0.00050	<0.0010	<0.0010		<0.0010		
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015													
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017													
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014													
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016													
SW-TR	ALS	2024-10-02	WP2423347	0.00084	0.00094	0.00047	0.00047	41.1	0.00048	<0.00050	0.0011	<0.0010		0.0012		
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006													
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005													
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005													
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004													
SW-TR	ALS	2024-11-02	WP2425500	0.00096	0.00098	0.00046	0.00046	37.1	0.00067	0.00061	0.0012	0.0012		0.0012		
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021													
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021													
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020													
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020													
SW-TR	ALS	2024-12-01	WP2426900	0.00078	0.00084	0.00038	0.00042	37.5	0.00066	0.00076	0.0016	<0.0010		<0.0010		
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007													
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007													
WB-03	SGS	2022-07-13	CA15242-JUL22	0.00043	0.00015	0.000056	0.000032	22	0.0008	0.0007			< 0.01			< 0.06
WB-04	SGS	2022-07-29		0.0012	0.00131	0.000162	0.000927	59	0.0013	0.001			< 0.01			< 0.06

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Hardness - Dissolved (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Iron - Dissolved (mg/L)	Iron - Total (mg/L)	Lead - Dissolved (mg/L)	Lead - Total (mg/L)	Lithium - Dissolved (mg/L)	Lithium - Total (mg/L)	Magnesium - Dissolved (mg/L)	Magnesium - Total (mg/L)	Manganese - Dissolved (mg/L)	Manganese - Total (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1												
SW-TR	ALS	2024-07-08	WP2417173	9.2	8.9	1.47	1.45	0.000599	0.000616	<0.0010	<0.0010	0.784	0.73	0.00954	0.00927
SW-TR	Flett	2024-07-09	TMWATR072524CH2												
SW-TR	Flett	2024-07-09	MTWATR072424JS2												
SW-TR	ALS	2024-08-04	WP2419020												
SW-TR	ALS	2024-08-04	WP2419020	10.3	10.4	1.35	1.47	0.000459	0.000457	0.0012	0.0016	0.906	0.946	0.0119	0.0124
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005												
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005												
SW-TR	ALS	2024-09-03	WP2421465												
SW-TR	ALS	2024-09-03	WP2421465	10.9	11.6	1.05	1.06	0.000438	0.000486	<0.0010	0.0019	0.884	0.926	0.00921	0.00853
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015												
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017												
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014												
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016												
SW-TR	ALS	2024-10-02	WP2423347	12.7	13.2	1.24	1.28	0.000764	0.000755	<0.0010	0.0015	1.06	1.08	0.00557	0.0062
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006												
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005												
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005												
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004												
SW-TR	ALS	2024-11-02	WP2425500	14.5	14.4	1.14	1.18	0.00058	0.000555	0.0013	0.0012	1.17	1.15	0.0111	0.0105
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021												
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021												
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020												
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020												
SW-TR	ALS	2024-12-01	WP2426900	11.6	12.4	0.959	1.12	0.000651	0.000707	0.002	<0.0010	0.886	0.878	0.00964	0.011
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007												
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007												
WB-03	SGS	2022-07-13	CA15242-JUL22	11.6	11	0.069	0.069	< 0.00009	< 0.00009	0.0007	0.0007	0.929	0.925	0.015	0.0145
WB-04	SGS	2022-07-29		38.5	35.4	1.37	2.43	0.0001	0.00018			2.33	2.15	0.00543	0.208

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Mercury - Dissolved (mg/L)	Mercury - Methyl (ng/L)	Mercury - Total (mg/L)	Mercury - Total Low Level (ng/L)	Molybdenum - Dissolved (mg/L)	Molybdenum - Total (mg/L)	Nickel - Dissolved (mg/L)	Nickel - Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Nitrite (as N) (mg/L)	Phosphorus - Dissolved (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1				9.51								
SW-TR	ALS	2024-07-08	WP2417173	<0.0000050		<0.0000050		0.000078	0.000076	0.00094	0.00087	<0.0050	<0.0051	<0.0010	
SW-TR	Flett	2024-07-09	TMWATR072524CH2				5.09								
SW-TR	Flett	2024-07-09	MTWATR072424JS2		0.15										
SW-TR	ALS	2024-08-04	WP2419020												
SW-TR	ALS	2024-08-04	WP2419020	<0.0000050		<0.0000050		<0.000050	<0.000050	0.00115	0.00113	<0.0050	<0.0051	<0.0010	<0.030
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005				4.07								
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005		0.354										
SW-TR	ALS	2024-09-03	WP2421465												
SW-TR	ALS	2024-09-03	WP2421465	<0.0000050		<0.0000050		0.000054	<0.000050	0.00091	0.001	<0.0050	<0.0051	<0.0010	
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015				3.99								
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017		0.308										
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014				4.09								
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016		0.293										
SW-TR	ALS	2024-10-02	WP2423347	<0.0000050		0.000005		0.00009	0.000095	0.00111	0.00115	<0.0050	<0.0051	<0.0010	<0.030
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006				6.42								
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005		0.198										
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005				6.72								
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004		0.206										
SW-TR	ALS	2024-11-02	WP2425500	<0.0000050		0.00001		0.000076	0.000078	0.0011	0.00104	<0.0050	<0.0051	<0.0010	<0.030
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021		0.276										
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021				6.13								
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020		0.287										
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020				6.52								
SW-TR	ALS	2024-12-01	WP2426900	<0.0000050		0.0000053		0.000086	0.000107	0.00086	0.00095	0.0088	0.0088	<0.0010	<0.030
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007				6.09								
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007		0.138										
WB-03	SGS	2022-07-13	CA15242-JUL22	< 0.00001		< 0.00001		< 0.00004	< 0.00004	0.0003	0.0003	<0.06	<0.06	<0.03	
WB-04	SGS	2022-07-29				< 0.00001		0.00032	0.00036	0.0015	0.0014	< 0.06	< 0.06	< 0.03	

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Phosphorus - Total by Colour (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Potassium - Dissolved (mg/L)	Potassium - Total (mg/L)	Radium-226 (Bq/L)	Rubidium - Dissolved (mg/L)	Rubidium - Total (mg/L)	Selenium - Dissolved (mg/L)	Selenium - Total (mg/L)	Silicon - Dissolved (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1												
SW-TR	ALS	2024-07-08	WP2417173	<0.030	<0.030	0.0121	<0.050	<0.050	<0.050		<0.00020	<0.00020	0.000138	0.000136	4.37
SW-TR	Flett	2024-07-09	TMWATR072524CH2												
SW-TR	Flett	2024-07-09	MTWATR072424JS2												
SW-TR	ALS	2024-08-04	WP2419020												
SW-TR	ALS	2024-08-04	WP2419020	<0.050	<0.030	0.0209	<0.050	<0.050	<0.050		<0.00020	0.00023	0.000133	0.000056	2.32
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005												
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005												
SW-TR	ALS	2024-09-03	WP2421465	<0.030											
SW-TR	ALS	2024-09-03	WP2421465	<0.050	<0.030	0.0152	<0.050	<0.050	<0.050		<0.00020	0.0002	0.000226	0.000213	2.66
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015												
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017												
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014												
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016												
SW-TR	ALS	2024-10-02	WP2423347		<0.030	0.0176		<0.050	<0.050		0.00023	0.0002	0.00015	<0.000050	4.11
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006												
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005												
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005												
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004												
SW-TR	ALS	2024-11-02	WP2425500		<0.030	0.281		0.126	0.094		0.00038	0.00032	0.000135	0.000194	2.75
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021												
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021												
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020												
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020												
SW-TR	ALS	2024-12-01	WP2426900		<0.030	0.0284		0.062	0.091		0.0003	0.00035	0.000096	0.000144	4.14
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007												
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007												
WB-03	SGS	2022-07-13	CA15242-JUL22	0.007			< 0.003	0.33	0.337				< 0.00004	0.00006	0.2
WB-04	SGS	2022-07-29		0.024			0.069	0.385	0.357				0.00013	0.00023	5.48

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Silicon - Total (mg/L)	Silver - Dissolved (mg/L)	Silver - Total (mg/L)	Sodium - Dissolved (mg/L)	Sodium - Total (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Strontium - Dissolved (mg/L)	Strontium - Total (mg/L)	Sulfur - Dissolved (mg/L)	Sulfur - Total (mg/L)	Sulphate (as SO4) (mg/L)	Tellurium - Dissolved (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1													
SW-TR	ALS	2024-07-08	WP2417173	4.32	<0.000010	<0.000010	0.86	0.773	57	<1.0	0.0141	0.0139	<0.50	<0.50	<0.30	<0.00020
SW-TR	Flett	2024-07-09	TMWATR072524CH2													
SW-TR	Flett	2024-07-09	MTWATR072424JS2													
SW-TR	ALS	2024-08-04	WP2419020													
SW-TR	ALS	2024-08-04	WP2419020	2.72	<0.000010	<0.000010	0.84	0.887	83.6	1.4	0.0127	0.0134	<0.50	<0.50	<0.30	<0.00020
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005													
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005													
SW-TR	ALS	2024-09-03	WP2421465													
SW-TR	ALS	2024-09-03	WP2421465	2.58	<0.000010	<0.000010	0.789	0.863	89.6	2.8	0.015	0.0154	<0.50	<0.50	<0.30	<0.00020
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015													
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017													
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014													
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016													
SW-TR	ALS	2024-10-02	WP2423347	4.4	<0.000010	<0.000010	0.958	0.984	111	24.2	0.0199	0.0199	<0.50	<0.50	<0.30	<0.00020
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006													
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005													
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005													
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004													
SW-TR	ALS	2024-11-02	WP2425500	2.7	<0.000010	<0.000010	1.05	1.01	117	25.9	0.0203	0.0204	<0.50	<0.50	<0.30	<0.00020
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021													
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021													
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020													
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020													
SW-TR	ALS	2024-12-01	WP2426900	4.2	<0.000010	<0.000010	0.838	1.07	90.2	1.1	0.0173	0.019	<0.50	0.85	<0.30	<0.00020
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007													
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007													
WB-03	SGS	2022-07-13	CA15242-JUL22	0.18	< 0.00005	< 0.00005	0.83	0.82	43	3	0.01086	0.0119		< 1	< 2	
WB-04	SGS	2022-07-29		5.04	<0.00005	< 0.00005	1.25	1.46	140	13	0.0352	0.0335	3	2	< 20	

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Sample Point	Data Source	Date	Lab Ref	Tellurium - Total (mg/L)	Thallium - Dissolved (mg/L)	Thallium - Total (mg/L)	Thorium - Dissolved (mg/L)	Thorium - Total (mg/L)	Tin - Dissolved (mg/L)	Tin - Total (mg/L)	Titanium - Dissolved (mg/L)	Titanium - Total (mg/L)	Total Organic Carbon (mg/L)	Tungsten - Dissolved (mg/L)	Tungsten - Total (mg/L)	Uranium - Dissolved (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1													
SW-TR	ALS	2024-07-08	WP2417173	<0.00020	<0.000010	<0.000010	0.00018	0.00016	0.00014	<0.00010	0.00545	0.00517		<0.00010	<0.00010	0.000101
SW-TR	Flett	2024-07-09	TMWATR072524CH2													
SW-TR	Flett	2024-07-09	MTWATR072424JS2													
SW-TR	ALS	2024-08-04	WP2419020													
SW-TR	ALS	2024-08-04	WP2419020	<0.00020	<0.000010	<0.000010	0.00017	0.00016	<0.00010	0.00013	0.00679	0.00757		<0.00010	<0.00010	0.000085
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005													
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005													
SW-TR	ALS	2024-09-03	WP2421465													
SW-TR	ALS	2024-09-03	WP2421465	<0.00020	<0.000010	<0.000010	0.00016	0.00015	<0.00010	<0.00010	0.0068	0.00737		<0.00010	<0.00010	0.000069
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015													
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017													
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014													
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016													
SW-TR	ALS	2024-10-02	WP2423347	<0.00020	<0.000010	<0.000010	0.0002	0.00019	<0.00010	<0.00010	0.00851	0.00893		<0.00010	<0.00010	0.000102
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006													
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005													
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005													
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004													
SW-TR	ALS	2024-11-02	WP2425500	<0.00020	<0.000010	<0.000010	0.00021	0.0002	<0.00010	<0.00010	0.0113	0.0103		<0.00010	<0.00010	0.000109
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021													
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021													
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020													
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020													
SW-TR	ALS	2024-12-01	WP2426900	<0.00020	<0.000010	0.00001	0.00017	0.00017	<0.00010	<0.00010	0.00688	0.00762		<0.00010	<0.00010	0.000092
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007													
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007													
WB-03	SGS	2022-07-13	CA15242-JUL22		< 0.000005	< 0.000005			< 0.00006	0.00008			9	0.00002	< 0.00002	0.00003
WB-04	SGS	2022-07-29			< 0.000005	0.000006			0.00024	0.00007	0.00389	0.00934	48	0.00013	< 0.00002	0.000075

Note: Tabulated data here is from a direct data export provided by Great Bear Resou

Sample Point	Data Source	Date	Lab Ref	Uranium - Total (mg/L)	Vanadium - Dissolved (mg/L)	Vanadium - Total (mg/L)	Yttrium - Dissolved (mg/L)	Yttrium - Total (mg/L)	Zinc - Dissolved (mg/L)	Zinc - Total (mg/L)	Zirconium - Dissolved (mg/L)	Zirconium - Total (mg/L)
SW-TR	Flett	2024-06-18	TMWATR070224CH1									
SW-TR	ALS	2024-07-08	WP2417173	0.000097	0.00102	0.00111			0.0054	0.0052	0.00047	0.00044
SW-TR	Flett	2024-07-09	TMWATR072524CH2									
SW-TR	Flett	2024-07-09	MTWATR072424JS2									
SW-TR	ALS	2024-08-04	WP2419020									
SW-TR	ALS	2024-08-04	WP2419020	0.000086	0.00074	0.00079			0.0064	0.0049	0.00045	0.00041
SW-TR	Flett	2024-08-04	TMWATR091124CH1-005									
SW-TR	Flett	2024-08-04	MTWATR091624JS1-005									
SW-TR	ALS	2024-09-03	WP2421465									
SW-TR	ALS	2024-09-03	WP2421465	0.000079	0.00079	0.00088			0.0046	0.0041	0.00042	0.00039
SW-TR	Flett	2024-09-03	TMWATR092924CH1-015									
SW-TR	Flett	2024-09-03	MTWATR100124JS1-017									
SW-TR	Flett	2024-09-03	TMWATR092924CH1-014									
SW-TR	Flett	2024-09-03	MTWATR100124JS1-016									
SW-TR	ALS	2024-10-02	WP2423347	0.000102	0.00115	0.00131			0.0048	0.0052	0.00052	0.00047
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-006									
SW-TR	Flett	2024-10-02	MTWATR112724JS1-005									
SW-TR	Flett	2024-10-02	TMWATR102824ZB1-005									
SW-TR	Flett	2024-10-02	MTWATR112724JS1-004									
SW-TR	ALS	2024-11-02	WP2425500	0.000099	0.00126	0.00125			0.0052	0.0055	0.00051	0.00048
SW-TR	Flett	2024-11-02	MTWATR120524JS1-021									
SW-TR	Flett	2024-11-02	TMWATR112524CH1-021									
SW-TR	Flett	2024-11-02	MTWATR120524JS1-020									
SW-TR	Flett	2024-11-02	TMWATR112524CH1-020									
SW-TR	ALS	2024-12-01	WP2426900	0.000097	0.00094	0.00103			0.0052	0.0058	0.0006	0.00075
SW-TR	Flett	2024-12-01	TMWATR012125CH1-007									
SW-TR	Flett	2024-12-01	MTWATR121924JS1-007									
WB-03	SGS	2022-07-13	CA15242-JUL22	0.00003	0.00012	0.00009	0.00006	0.00012	< 0.002	< 0.002	< 0.002	< 0.002
WB-04	SGS	2022-07-29		0.000074	0.00086	0.00156	0.00049	0.00051	0.007	0.007	< 0.002	< 0.002

Note: This is 2020 and 2021 data collected by Blue Heron.

Data Source	Current Station Nam	Date and time	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Hardness - Dissolved (as CaCO3) (mg/L)	TOC (mg/L)	DOC (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Turb. (NTU)	Conductivity - Lab (µS/cm)
SGS	CR-DS	2021-06-03	-	7.59	-	<2	-	-	37	-	-	50.8	46.2	-	-	89	-	-	82
SGS	CR-DS	2021-07-23	-	7.41	-	<2	-	-	30	-	-	39.8	-	9	9	60	8	-	84
SGS	CR-DS	2021-08-25	-	7.63	-	<2	-	-	37	-	-	40.1	-	10	10	69	6	-	93
SGS	CR-DS	2021-10-16	-	7.41	-	<2	-	-	37	-	-	41.9	-	10	9	63	6	-	92
SGS	CR-REF	2021-06-03	-	7.6	-	<2	-	-	30	-	-	42.7	39.1	-	-	63	-	-	77
SGS	CR-REF	2021-07-23	-	7.45	-	<2	-	-	30	-	-	39.1	-	9	10	51	5	-	24
SGS	CR-REF	2021-08-25	-	7.73	-	<2	-	-	38	-	-	38	-	10	10	69	6	-	93
SGS	CR-REF	2021-10-02	-	7.7	-	<2	-	-	34	-	-	41.8	-	9	10	71	2	-	93
SGS	CR-REF	2021-10-16	-	7.35	-	<2	-	-	36	-	-	40.9	-	9	10	74	6	-	88
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-TRIB-01	2021-08-24	-	7.93	-	<2	-	-	92	-	-	78.1	-	10	11	117	2	-	166
SGS	DC-US	2021-06-02	-	7.76	-	<2	-	-	40	-	-	46.3	46.5	-	-	71	-	-	82
SGS	DC-US	2021-07-23	-	7.4	-	<2	-	-	38	-	-	43.9	-	16	16	83	8	-	86
SGS	DC-US	2021-08-24	-	7.56	-	<2	-	-	47	-	-	-	46.4	16	16	89	13	-	91
SGS	DC-US	2021-10-21	-	7.48	-	<2	-	-	40	-	-	35.1	-	13	13	74	2	-	78
SGS	DC-US	2021-11-30	-	7.63	-	<2	-	-	40	-	-	44.5	-	12	13	40	5	-	85
SGS	DUP	2021-10-24	-	7.26	-	<2	-	-	36	-	-	52.6	-	26	26	149	<2	-	176
SGS	SW-01	2020-06-27	5.46	6.45	21.5	9	-	-	10	-	-	21.8	20.7	36	32	91	3	19.5	34
SGS	SW-01	2020-09-23	6.73	6.58	12.9	7	-	-	10	-	-	21.2	19.6	34	33	117	21	-	38
SGS	SW-01	2021-10-02	-	6.57	-	6	-	-	9	-	-	19.5	-	32	34	97	6	-	33
SGS	SW-01	2021-10-20	-	6.78	-	7	-	-	9	-	-	18.9	-	35	35	60	2	-	35
SGS	SW-02	2020-06-27	6.54	6.96	22.6	<2	-	-	50	-	-	42.7	41.7	39	38	123	5	35.1	61
SGS	SW-02	2020-09-23	5.75	7.17	12.6	<2	-	-	36	-	-	43.4	41.9	32	31	114	7	-	78
SGS	SW-03	2020-06-27	6.5	7.39	23.3	<2	-	-	35	-	-	35.8	34.6	17	17	63	9	38.35	67
SGS	SW-03	2020-09-23	6.29	7.61	11.7	<2	-	-	109	-	-	105	102	9	10	154	14	-	204
SGS	SW-04	2020-06-27	6.98	7.3	22.4	<2	-	-	36	-	-	39.7	36.6	16	17	66	6	38.35	67
SGS	SW-04	2020-09-23	6.73	7.91	10.8	<2	-	-	108	-	-	108	98.1	10	11	137	4	-	201
SGS	SW-04	2020-11-06	6.8	7.75	-	<2	-	-	44	-	-	47	43	15	15	74	10	-	95
SGS	SW-04	2021-08-24	-	7.72	-	<2	-	-	68	-	-	-	73.1	14	14	97	12	-	128
SGS	SW-04	2021-10-02	-	7.58	-	<2	-	-	73	-	-	74.3	-	12	12	117	3	-	138
SGS	SW-04	2021-10-20	-	7.98	-	<2	-	-	50	-	-	43.6	-	13	13	69	8	-	103
SGS	SW-05	2020-06-28	5.29	6.57	27.5	17	-	-	25	-	-	38.1	36.3	52	49	146	8	36.4	58
SGS	SW-05	2020-09-24	6.07	7	11.8	<2	-	-	39	-	-	52.1	48.6	44	42	123	12	-	88
SGS	SW-06	2020-06-28	6.33	7.26	23.6	<2	-	-	41	-	-	51.3	51.6	41	40	140	3	44.87	78
SGS	SW-06	2020-09-28	6.8	7.65	8.2	<2	-	-	97	-	-	96.8	90.7	29	28	174	4	-	180
SGS	SW-07	2020-06-28	6.03	7.01	23.7	<2	-	-	54	-	-	61.6	60.5	51	48	143	5	63.7	102
SGS	SW-07	2020-09-28	6.6	7.76	9.4	<2	-	-	82	-	-	86.2	76.4	20	20	134	3	-	156
SGS	SW-08	2020-06-27	6.59	7.29	22.6	<2	-	-	37	-	-	37.2	37	17	17	57	11	39.65	69
SGS	SW-08	2020-09-24	6.85	7.87	8.8	<2	-	-	120	-	-	122	116	12	12	151	16	-	252
SGS	SW-08	2021-05-15	-	7.73	-	<2	-	-	43	-	-	44.1	42.3	13	14	57	4	-	86
SGS	SW-08A	2021-08-24	-	7.6	-	<2	-	-	68	-	-	-	93.5	36	36	266	45	-	151
SGS	SW-08A	2021-10-02	-	7.48	-	<2	-	-	107	-	-	124	-	25	27	200	12	-	256
SGS	SW-08A	2021-10-19	-	7.53	-	<2	-	-	78	-	-	75.8	-	27	27	149	9	-	154
SGS	SW-09	2020-06-27	7.03	7.29	22.5	<2	-	-	33	-	-	39.9	37.1	17	18	57	44	41.6	71
SGS	SW-09	2020-09-24	6.86	7.86	10.1	<2	-	-	103	-	-	102	98.1	16	17	160	8	-	207
SGS	SW-09	2021-05-15	-	7.71	-	<2	-	-	39	-	-	42.6	41	14	14	66	4	-	83
SGS	SW-10	2020-06-27	7.1	7.31	23.8	<2	-	-	48	-	-	50.8	50.4	23	20	89	14	51.35	90
SGS	SW-10	2020-09-24	6.74	7.69	11.1	<2	-	-	71	-	-	69.7	67.8	18	18	123	12	-	139
SGS	SW-10	2021-10-16	-	7.52	-	<2	-	-	111	-	-	110	-	18	18	169	4	-	208
SGS	SW-11	2020-06-28	6.25	7.35	23	<2	-	-	47	-	-	61.1	59.7	42	40	146	13	55.25	94
SGS	SW-11	2020-09-23	6.61	7.54	9.9	<2	-	-	122	-	-	126	112	32	32	180	8	-	224
SGS	SW-12	2020-06-28	5.62	6.59	23.9	13	-	-	12	-	-	21.3	20.7	33	33	103	2	22.75	36
SGS	SW-12	2020-09-29	5.45	7.13	8.84	<2	-	-	14	-	-	22.1	19.4	19	20	66	10	-	42
SGS	SW-12	2021-10-24	-	6.56	-	11	-	-	13	-	-	18.1	-	20	22	60	29	-	36
SGS	SW-13	2020-06-28	5.93	7.04	21.2	<2	-	-	27	-	-	42.3	44.5	32	27	89	3	96.2	168
SGS	SW-13	2020-09-29	6.44	7.58	8.8	<2	-	-	37	-	-	52.6	45.8	24	23	143	76	-	184
SGS	SW-13	2021-10-24	-	7.28	-	<2	-	-	41	-	-	48.6	-	26	26	134	<2	-	176

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Conductivity - Field (µS/cm)	Chloride (mg/L)	Fluoride (mg/L)	Sulphate (as SO4) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Nitrite (as N) (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Phosphorus - Total by Colour (mg/L)	DO (mg/L)	COD (mg/L)	Cyanide - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - WAD (mg/L)	Aluminum - Total (mg/L)
SGS	CR-DS	2021-06-03	-	2	0.06	-	-	-	<0.1	<0.03	<0.06	-	-	-	-	-	-	-	0.466
SGS	CR-DS	2021-07-23	-	3	0.06	7	-	-	<0.1	0.09	<0.06	0.09	-	-	23	-	-	-	0.127
SGS	CR-DS	2021-08-25	-	3	<0.06	6	-	-	<0.1	<0.06	<0.03	<0.06	-	-	16	-	-	-	0.077
SGS	CR-DS	2021-10-16	-	7	0.07	7	-	-	<0.04	<0.03	<0.06	<0.06	-	-	30	-	-	-	0.194
SGS	CR-REF	2021-06-03	-	3	<0.06	-	-	-	<0.1	<0.03	<0.06	-	-	-	-	-	-	-	0.266
SGS	CR-REF	2021-07-23	-	3	0.07	7	-	-	<0.1	0.06	<0.06	0.06	-	-	25	-	-	-	0.139
SGS	CR-REF	2021-08-25	-	3	<0.06	7	-	-	<0.1	<0.06	<0.03	<0.06	-	-	31	-	-	-	0.084
SGS	CR-REF	2021-10-02	-	6	0.06	8	-	-	<0.1	<0.03	<0.06	<0.06	-	-	37	-	-	-	0.087
SGS	CR-REF	2021-10-16	-	3	<0.06	8	-	-	<0.04	<0.03	<0.06	<0.06	-	-	27	-	-	-	0.225
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-TRIB-01	2021-08-24	-	1	0.17	<2	-	-	<0.1	<0.06	<0.03	<0.06	-	-	31	-	-	-	0.019
SGS	DC-US	2021-06-02	-	<1	0.06	-	-	-	0.3	<0.03	<0.06	-	-	-	-	-	-	-	0.219
SGS	DC-US	2021-07-23	-	<1	0.08	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	-	45	-	-	-	0.158
SGS	DC-US	2021-08-24	-	<1	0.1	<2	-	-	0.1	0.07	<0.03	0.07	-	-	42	-	-	-	0.215
SGS	DC-US	2021-10-21	-	<1	0.26	<2	-	-	<0.1	<0.03	0.26	0.26	-	-	29	-	-	-	0.11
SGS	DC-US	2021-11-30	-	<1	0.1	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	-	35	-	-	-	0.126
SGS	DUP	2021-10-24	-	33	0.09	<20	-	-	<0.1	<0.03	0.13	0.13	-	-	66	-	-	-	0.106
SGS	SW-01	2020-06-27	30.2	2	<0.06	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	4.84	84	<0.01	-	-	0.268
SGS	SW-01	2020-09-23	35	2	<0.06	<2	-	-	0.2	<0.03	<0.06	<0.06	-	10.61	85	<0.01	-	-	0.413
SGS	SW-01	2021-10-02	-	<1	<0.06	<20	-	-	<0.1	<0.03	<0.06	<0.06	-	-	<8	-	-	-	0.15
SGS	SW-01	2021-10-20	-	<1	<0.06	<20	-	-	<0.1	<0.03	<0.06	<0.06	-	-	86	-	-	-	0.277
SGS	SW-02	2020-06-27	59.2	2	<0.06	<2	-	-	<0.1	<0.03	<5.82	<5.82	-	7.01	103	<0.01	-	-	0.28
SGS	SW-02	2020-09-23	158	2	<0.06	<2	-	-	<0.1	<0.03	<0.35	<0.35	-	5.74	81	<0.01	-	-	0.225
SGS	SW-03	2020-06-27	59.5	2	<0.06	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	6.87	42	<0.01	-	-	0.15
SGS	SW-03	2020-09-23	173	2	<0.18	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	7.46	37	<0.01	-	-	0.364
SGS	SW-04	2020-06-27	61.1	1	<0.06	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	6.72	42	<0.01	-	-	0.198
SGS	SW-04	2020-09-23	102	2	<0.19	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	2.7	34	<0.01	-	-	0.216
SGS	SW-04	2020-11-06	-	1	0.1	<2	-	-	<0.1	0.09	<0.06	0.09	-	-	48	<0.01	-	-	0.357
SGS	SW-04	2021-08-24	-	<1	0.12	<2	-	-	0.1	0.06	<0.03	0.06	-	-	23	-	-	-	0.298
SGS	SW-04	2021-10-02	-	<1	0.14	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	-	51	-	-	-	0.207
SGS	SW-04	2021-10-20	-	<1	0.1	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	-	47	-	-	-	0.266
SGS	SW-05	2020-06-28	147.4	3	<0.11	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	5.7	143	<0.01	-	-	0.405
SGS	SW-05	2020-09-24	196	3	<0.11	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	8.68	115	<0.01	-	-	0.312
SGS	SW-06	2020-06-28	7.77	3	<0.12	<2	-	-	<0.1	<0.03	<0.13	<0.13	-	5.56	105	<0.01	-	-	0.39
SGS	SW-06	2020-09-28	127	3	<0.16	<20	-	-	0.1	<0.03	<0.06	<0.06	-	8.95	74	<0.01	-	-	0.116
SGS	SW-07	2020-06-28	68.5	3	<0.09	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	4.4	129	<0.01	-	-	0.429
SGS	SW-07	2020-09-28	133	2	<0.12	<2	-	-	0.1	<0.03	<0.26	<0.26	-	9.13	56	<0.01	-	-	0.234
SGS	SW-08	2020-06-27	65.5	2	<0.06	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	5.78	51	<0.01	-	-	0.268
SGS	SW-08	2020-09-24	173	6	<0.18	<5	-	-	<0.1	<0.03	<0.06	<0.06	-	8.87	36	<0.01	-	-	0.433
SGS	SW-08	2021-05-15	-	<1	0.07	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	-	74	<0.01	-	-	0.089
SGS	SW-08A	2021-08-24	-	14	0.12	14	-	-	<0.1	<0.06	<0.03	<0.06	-	-	71	-	-	-	4.46
SGS	SW-08A	2021-10-02	-	15	0.13	18	-	-	<0.1	<0.03	<0.06	<0.06	-	-	79	-	-	-	0.242
SGS	SW-08A	2021-10-19	-	4	0.13	<20	-	-	<0.1	<0.03	0.13	0.13	-	-	67	-	-	-	0.807
SGS	SW-09	2020-06-27	79.9	2	<0.06	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	7.14	50	<0.01	-	-	0.466
SGS	SW-09	2020-09-24	121	3	<0.14	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	8.86	47	<0.01	-	-	0.532
SGS	SW-09	2021-05-15	-	1	0.07	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	-	58	<0.01	-	-	0.089
SGS	SW-10	2020-06-27	53.7	2	<0.06	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	6.86	67	<0.01	-	-	0.258
SGS	SW-10	2020-09-24	91	2	<0.11	<2	-	-	<0.1	<0.03	<0.07	<0.07	-	8.43	52	<0.01	-	-	0.172
SGS	SW-10	2021-10-16	-	2	0.1	<2	-	-	<0.04	<0.03	<0.06	<0.06	-	-	49	-	-	-	0.144
SGS	SW-11	2020-06-28	56.2	3	<0.08	<2	-	-	<0.1	<0.03	<0.09	<0.09	-	2.37	108	<0.01	-	-	0.783
SGS	SW-11	2020-09-23	73	2	<0.15	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	9.37	85	<0.01	-	-	0.29
SGS	SW-12	2020-06-28	64.5	2	<0.07	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	7.61	82	<0.01	-	-	0.683
SGS	SW-12	2020-09-29	65	1	<0.1	<2	-	-	0.1	<0.03	<0.07	<0.07	-	7.2	55	<0.01	-	-	0.531
SGS	SW-12	2021-10-24	-	<1	0.07	<20	-	-	<0.1	<0.03	0.08	0.08	-	-	54	-	-	-	0.605
SGS	SW-13	2020-06-28	98.1	38	<0.11	<2	-	-	<0.2	<0.03	<0.06	<0.06	-	5.39	78	<0.01	-	-	0.17
SGS	SW-13	2020-09-29	132	36	<0.11	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	9.44	62	<0.01	-	-	0.21
SGS	SW-13	2021-10-24	-	33	0.06	<20	-	-	<0.1	<0.03	0.13	0.13	-	-	67	-	-	-	0.095

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Antimony - Total (mg/L)	Arsenic - Total (mg/L)	Barium - Total (mg/L)	Beryllium - Total (mg/L)	Bismuth - Total (mg/L)	Boron - Total (mg/L)	Cadmium - Total (mg/L)	Calcium - Total (mg/L)	Cesium - Total (mg/L)	Chromium - Total (mg/L)	Cobalt - Total (mg/L)	Copper - Total (mg/L)	Iron - Total (mg/L)	Lead - Total (mg/L)	Lithium - Total (mg/L)	Magnesium - Total (mg/L)	Manganese - Total (mg/L)
SGS	CR-DS	2021-06-03	<0.0009	0.0034	0.0134	0.000019	0.00001	0.007	0.000009	14.1	-	0.0011	0.000262	0.0021	0.656	0.00031	0.0024	3.81	0.029
SGS	CR-DS	2021-07-23	<0.0009	0.008	0.00851	0.000009	<0.00001	0.009	0.000008	11.4	-	0.00082	0.000128	0.0015	0.151	0.00012	0.0019	2.76	0.012
SGS	CR-DS	2021-08-25	<0.0009	0.015	0.00663	<0.000007	<0.00001	0.004	0.000005	11	-	0.00041	0.000118	0.0015	0.124	0.00011	0.0012	3.1	0.015
SGS	CR-DS	2021-10-16	<0.0009	0.0071	0.0104	0.000008	<0.00001	0.007	<0.000003	11.9	-	0.0004	0.000147	0.0016	0.236	0.00031	0.002	2.95	0.0128
SGS	CR-REF	2021-06-03	<0.0009	0.0051	0.0108	0.000013	<0.00001	0.007	0.000007	12.3	-	0.00061	0.000174	0.0018	0.275	0.00015	0.0021	2.92	0.0129
SGS	CR-REF	2021-07-23	<0.0009	0.008	0.00843	<0.000007	<0.00001	0.01	0.000004	11.1	-	0.00067	0.000128	0.0016	0.149	0.00011	0.0018	2.77	0.0107
SGS	CR-REF	2021-08-25	<0.0009	0.0146	0.00715	<0.000007	<0.00001	0.003	0.000009	10.5	-	0.00048	0.000125	0.0014	0.126	0.0001	0.0011	2.88	0.0137
SGS	CR-REF	2021-10-02	<0.0009	0.009	0.00918	0.000017	<0.00001	0.007	0.000012	12	-	0.0005	0.000113	0.0015	0.138	0.0001	0.0019	2.87	0.00705
SGS	CR-REF	2021-10-16	<0.0009	0.007	0.0103	<0.000007	<0.00001	0.008	0.000006	11.6	-	0.00052	0.00018	0.0016	0.253	0.00017	0.0021	2.9	0.0121
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-TRIB-01	2021-08-24	<0.0009	0.0013	0.00963	<0.000007	<0.00001	0.003	<0.000003	23.6	-	0.00065	0.000112	0.0004	0.982	<0.00009	0.0015	4.62	0.0552
SGS	DC-US	2021-06-02	<0.0009	0.0019	0.0114	0.000011	0.00001	0.007	0.000004	12.8	-	0.00073	0.000129	0.0012	0.494	0.00022	0.0019	3.48	0.0197
SGS	DC-US	2021-07-23	<0.0009	0.0033	0.00942	0.000013	<0.00001	0.008	0.000009	11.9	-	0.00057	0.00019	0.0009	0.412	0.00016	0.0021	3.45	0.116
SGS	DC-US	2021-08-24	<0.0009	0.0037	0.0112	0.000011	<0.00001	0.004	0.000006	12.2	-	0.00085	0.000314	0.0011	0.604	0.00024	0.0015	3.87	0.0844
SGS	DC-US	2021-10-21	<0.0009	0.0011	0.00974	<0.000007	<0.00001	0.006	<0.000003	9.34	-	0.00038	0.000119	0.0007	0.177	0.0001	0.0014	2.85	0.0117
SGS	DC-US	2021-11-30	<0.0009	0.0011	0.0109	0.000011	<0.00001	0.005	0.000004	12.7	-	0.00031	0.000091	0.0008	0.182	0.00012	0.0015	3.09	0.00678
SGS	DUP	2021-10-24	<0.0009	0.0032	0.00959	0.000008	<0.00001	0.005	0.000005	13.3	-	0.00084	0.000229	0.0009	0.425	<0.00009	0.0016	4.67	0.0313
SGS	SW-01	2020-06-27	<0.0009	0.0044	0.00645	0.000018	0.000008	0.026	0.000012	6.25	-	0.00052	0.000379	<0.0002	0.833	0.00016	0.0012	1.52	0.0422
SGS	SW-01	2020-09-23	<0.0009	0.0051	0.0141	0.000026	0.000016	0.004	0.000015	5.84	-	0.00095	0.000308	0.001	1.05	0.00045	0.0013	1.61	0.0301
SGS	SW-01	2021-10-02	<0.0009	0.0047	0.00717	0.000013	0.00002	0.005	<0.000003	5.38	-	0.00084	0.000308	0.0006	0.737	0.00021	0.0012	1.48	0.048
SGS	SW-01	2021-10-20	<0.0009	0.0041	0.00677	0.000017	<0.00001	0.006	<0.000003	5.04	-	0.00069	0.000212	0.0007	0.566	0.00017	0.0011	1.53	0.0174
SGS	SW-02	2020-06-27	<0.0009	0.0047	0.00949	0.000025	0.000007	0.016	0.00001	12.1	-	0.00054	0.000298	0.0011	0.671	0.00011	0.0021	3.02	0.0305
SGS	SW-02	2020-09-23	<0.0009	0.0037	0.00837	0.000031	0.000011	0.004	<0.000003	12	-	0.00072	0.000325	0.001	0.614	0.00017	0.0023	3.24	0.0517
SGS	SW-03	2020-06-27	<0.0009	0.0019	0.00909	0.000013	<0.000007	0.011	<0.000003	9.78	-	0.00036	0.00013	0.0006	0.557	0.00008	0.0017	2.77	0.0293
SGS	SW-03	2020-09-23	<0.0009	0.0018	0.0148	0.000014	0.000009	0.005	0.000005	30.3	-	0.001	0.000217	0.0011	0.753	0.0002	0.0045	7.04	0.0457
SGS	SW-04	2020-06-27	<0.0009	0.0022	0.00965	0.00002	<0.000007	0.01	<0.000003	10.8	-	0.00049	0.00016	0.0008	0.673	0.00011	0.0018	3.1	0.0357
SGS	SW-04	2020-09-23	<0.0009	0.0018	0.0153	0.000016	0.000009	0.005	<0.000003	31	-	0.00067	0.000129	0.0012	0.62	0.00025	0.0044	7.36	0.0302
SGS	SW-04	2020-11-06	<0.0009	0.0019	0.0125	0.00001	<0.000007	0.011	<0.000003	13.1	-	0.00097	0.000215	0.0016	0.712	0.0002	0.0018	3.5	0.0264
SGS	SW-04	2021-08-24	<0.0009	0.0035	0.0152	0.000011	<0.00001	0.005	0.000006	20.2	-	0.00104	0.000359	0.0013	0.926	0.0003	0.002	5.52	0.072
SGS	SW-04	2021-10-02	<0.0009	0.0019	0.0154	0.000017	<0.00001	0.007	<0.000003	21.8	-	0.00077	0.000183	0.0009	0.644	0.00016	0.0028	4.84	0.0424
SGS	SW-04	2021-10-20	<0.0009	0.0014	0.0115	0.000009	<0.00001	0.009	0.000007	11.8	-	0.0007	0.000173	0.0008	0.444	0.00014	0.0018	3.42	0.0227
SGS	SW-05	2020-06-28	<0.0009	0.0081	0.0135	0.000032	0.000011	0.008	0.000019	10.6	-	0.00128	0.00114	0.0009	2.93	0.0001	0.0019	2.84	0.197
SGS	SW-05	2020-09-24	<0.0009	0.007	0.0122	0.000037	0.000017	0.003	0.000016	13.7	-	0.00146	0.001	0.0015	2.8	0.00022	0.0022	4.36	0.173
SGS	SW-06	2020-06-28	<0.0009	0.0042	0.0138	0.000035	0.000009	0.007	0.000015	14.1	-	0.00122	0.000257	0.0022	1.16	0.00007	0.0023	3.91	0.0183
SGS	SW-06	2020-09-28	<0.0009	0.0032	0.0179	0.000018	0.000009	0.004	0.000006	25.9	-	0.00082	0.000133	0.0007	0.694	0.00006	0.004	7.81	0.018
SGS	SW-07	2020-06-28	<0.0009	0.0046	0.0158	0.000043	0.000059	0.012	0.000022	18.1	-	0.00137	0.0006	0.0017	1.28	0.00006	0.0022	3.97	0.17
SGS	SW-07	2020-09-28	<0.0009	0.0022	0.017	0.000015	0.000014	0.003	0.000054	25.1	-	0.00077	0.00027	0.0019	0.471	0.00038	0.0027	5.71	0.0349
SGS	SW-08	2020-06-27	<0.0009	0.002	0.0107	0.000019	0.000023	0.006	<0.000003	10.1	-	0.00061	0.000207	0.0007	0.717	0.00013	0.0018	2.93	0.0376
SGS	SW-08	2020-09-24	<0.0009	0.002	0.0231	0.000023	0.000009	0.009	0.000005	33.6	-	0.00111	0.000232	0.0012	0.847	0.00027	0.0051	9.31	0.0713
SGS	SW-08	2021-05-15	<0.0009	0.002	0.00954	0.000007	<0.00001	0.004	0.000006	11.8	-	0.00047	0.000095	0.0008	0.43	0.00014	0.0015	3.53	0.0089
SGS	SW-08A	2021-08-24	<0.0009	0.006	0.0553	0.000092	0.00004	0.012	0.000072	23.1	-	0.01075	0.001989	0.0073	5.73	0.00182	0.0048	8.68	0.0673
SGS	SW-08A	2021-10-02	<0.0009	0.004	0.0266	0.000029	<0.00001	0.018	0.000008	34	-	0.00113	0.000321	0.0011	0.769	0.00012	0.0038	9.41	0.0862
SGS	SW-08A	2021-10-19	<0.0009	0.0032	0.0166	0.000025	<0.00001	0.025	0.000023	20.6	-	0.00148	0.000407	0.0013	1.03	0.00032	0.0028	5.88	0.0296
SGS	SW-09	2020-06-27	<0.0009	0.0022	0.0123	0.000028	0.000022	0.006	<0.000003	10.8	-	0.00104	0.000304	0.001	0.921	0.00022	0.0021	3.15	0.0482
SGS	SW-09	2020-09-24	<0.0009	0.002	0.0219	0.000026	0.000011	0.006	0.000005	27.6	-	0.00116	0.000295	0.0016	0.851	0.00032	0.0042	8.14	0.0815
SGS	SW-09	2021-05-15	<0.0009	0.002	0.00974	0.000008	<0.00001	0.004	0.000004	11.5	-	0.00099	0.000102	0.0011	0.477	0.00022	0.0015	3.36	0.0124
SGS	SW-10	2020-06-27	<0.0009	0.0024	0.0109	0.00002	0.000017	0.007	0.000008	13.7	-	0.00064	0.000197	0.0007	0.505	0.00008	0.0024	4.05	0.0266
SGS	SW-10	2020-09-24	<0.0009	0.0015	0.0126	0.000014	0.000007	0.004	0.000006	18.4	-	0.00053	0.000097	0.0007	0.262	0.00012	0.0033	5.78	0.0176
SGS	SW-10	2021-10-16	<0.0009	0.0023	0.0196	0.000008	<0.00001	0.006	<0.000003	29.4	-	0.00038	0.000183	0.0008	0.542	0.00016	0.0045	8.82	0.0352
SGS	SW-11	2020-06-28	<0.0009	0.0039	0.0185	0.000052	0.000016	0.006	0.000022	15.9	-	0.00153	0.000537	0.0035	0.853	0.00022	0.0026	5.18	0.0415
SGS	SW-11	2020-09-23	<0.0009	0.0041	0.0246	0.000038	0.000007	0.004	0.000026	32.5	-	0.00111	0.000761	0.0016	0.787	0.00014	0.0041	10.8	0.239
SGS	SW-12	2020-06-28	<0.0009	0.0061	0.0104	0.000036	0.000016	0.004	0.00002	6.06	-	0.00123	0.000919	0.0012	0.869	0.00027	0.0016	1.5	0.0482
SGS	SW-12	2020-09-29	<0.0009	0.0045	0.0123	0.000032	0.000039	<0.002	0.000021	5.99	-	0.00108	0.00156	0.001	1.06	0.00028	0.0014	1.73	0.112
SGS	SW-12	2021-10-24	<0.0009	0.0044	0.01097	0.000025	<0.00001	0.003	0.000021	4.8	-	0.00145	0.00117	0.0011	1.33	0.00049	0.0013	1.49	0.0615
SGS	SW-13	2020-06-28	<0.0009	0.0042	0.0115	0.000019	<0.000007	0.006	0.000008	11.3	-	0.00053	0.000248	0.0006	0.541	0.00001	0.0017	3.42	0.031
SGS	SW-13	2020-09-29	<0.0009	0.0044	0.0119	0.000017	0.00002	0.002	0.000018	13.7	-	0.00079	0.00057	0.0005	0.784	0.00012	0.0018	4.45	0.101
SGS	SW-13	2021-10-24	<0.0009	0.0026	0.00937	0.000013	<0.00001	0.005	<0.000003	12.4	-	0.00049	0.000269	0.0009	0.389	<0.00009	0.0016	4.31	0.0308

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Mercury - Total (mg/L)	Molybdenum - Total (mg/L)	Nickel - Total (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Potassium - Total (mg/L)	Rubidium - Total (mg/L)	Selenium - Total (mg/L)	Silicon - Total (mg/L)	Silver - Total (mg/L)	Sodium - Total (mg/L)	Strontium - Total (mg/L)	Sulfur - Total (mg/L)	Tellurium - Total (mg/L)	Thallium - Total (mg/L)	Thorium - Total (mg/L)	Tin - Total (mg/L)
SGS	CR-DS	2021-06-03	<0.00001	0.00039	0.0015	0.046	-	1.36	-	0.00009	2.56	<0.00005	2.14	0.0307	1	-	-	0.000009	0.00008
SGS	CR-DS	2021-07-23	-	0.00021	0.0008	0.006	-	1	-	0.00008	1.75	<0.00005	2.64	0.0308	2	-	-	<0.000005	0.0001
SGS	CR-DS	2021-08-25	-	0.00038	0.0012	<0.003	-	0.852	-	0.00011	1.63	<0.00005	3.46	0.0326	1	-	-	<0.000005	<0.00006
SGS	CR-DS	2021-10-16	-	0.00029	0.0013	0.008	-	1.08	-	0.00009	1.91	<0.00005	2.69	0.03	2	-	-	<0.000005	<0.00006
SGS	CR-REF	2021-06-03	<0.00001	0.00027	0.0015	0.032	-	1.1	-	0.00013	2	<0.00005	2.51	0.0301	2	-	-	0.000006	0.00007
SGS	CR-REF	2021-07-23	-	0.0002	0.0008	0.006	-	0.996	-	0.0001	1.73	<0.00005	2.62	0.0302	2	-	-	<0.000005	0.00011
SGS	CR-REF	2021-08-25	-	0.0005	0.0012	<0.003	-	0.803	-	0.00014	1.62	<0.00005	3.22	0.0303	2	-	-	<0.000005	<0.00006
SGS	CR-REF	2021-10-02	-	0.00037	0.0014	0.017	-	1.09	-	<0.00004	2.09	<0.00005	4.32	0.0305	3	-	-	<0.000005	0.00077
SGS	CR-REF	2021-10-16	-	0.00033	0.0013	0.025	-	1.1	-	0.00009	2.03	<0.00005	2.74	0.0309	2	-	-	<0.000005	<0.00006
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-TRIB-01	2021-08-24	-	0.0003	0.0003	<0.003	-	1.09	-	0.00009	4.85	<0.00005	2.87	0.0428	<1	-	-	<0.000005	<0.00006
SGS	DC-US	2021-06-02	<0.00001	0.00033	0.0008	0.043	-	1.28	-	0.0001	1.51	<0.00005	1.65	0.0276	<1	-	-	0.000005	0.00011
SGS	DC-US	2021-07-23	-	0.0002	0.0003	0.019	-	1.02	-	0.00009	1.2	<0.00005	1.56	0.0279	<1	-	-	<0.000005	0.00016
SGS	DC-US	2021-08-24	-	0.00028	0.0009	<0.003	-	1.03	-	0.00011	1.18	<0.00005	2.34	0.0306	-	-	-	0.000005	<0.00006
SGS	DC-US	2021-10-21	-	0.00022	0.0003	0.026	-	0.996	-	0.00006	1.39	<0.00005	1.37	0.0232	1	-	-	<0.000005	<0.00006
SGS	DC-US	2021-11-30	-	0.00021	0.0011	0.07	-	1.38	-	0.00008	2.62	<0.00005	2.43	0.02761	2	-	-	<0.000005	<0.00006
SGS	DUP	2021-10-24	-	0.00027	0.0005	0.019	-	1.11	-	0.00009	4.76	<0.00005	17.5	0.0412	1	-	-	<0.000005	<0.00006
SGS	SW-01	2020-06-27	0.00001	0.00005	0.0009	0.013	-	0.225	-	0.00015	2.47	<0.00005	1.17	0.0159	<1	-	<0.000005	-	0.00007
SGS	SW-01	2020-09-23	<0.00001	0.00012	0.0009	0.029	-	0.279	-	0.00017	1.78	<0.00005	1.1	0.0184	<1	-	0.000008	-	0.00014
SGS	SW-01	2021-10-02	-	0.0002	0.0007	0.013	-	0.195	-	<0.00004	0.49	<0.00005	1.45	0.0152	<1	-	-	<0.000005	0.00013
SGS	SW-01	2021-10-20	-	0.00018	0.0002	0.029	-	0.26	-	0.00011	0.72	<0.00005	1.03	0.0155	1	-	-	<0.000005	<0.00006
SGS	SW-02	2020-06-27	<0.00001	0.00007	0.0014	0.035	-	0.258	-	0.00011	2.16	<0.00005	1.03	0.0256	<1	-	<0.000005	-	<0.00006
SGS	SW-02	2020-09-23	<0.00001	0.0001	0.0012	0.03	-	0.648	-	0.00008	3.85	<0.00005	1.13	0.0305	<1	-	0.000006	-	0.00017
SGS	SW-03	2020-06-27	0.00001	0.00018	0.0007	0.023	-	0.871	-	0.00008	2.33	<0.00005	1.39	0.0216	<1	-	<0.000005	-	0.00009
SGS	SW-03	2020-09-23	<0.00001	0.0005	0.001	0.039	-	2.13	-	0.00008	6.89	<0.00005	2.44	0.0551	<1	-	0.000007	-	0.00013
SGS	SW-04	2020-06-27	<0.00001	0.0002	0.0008	0.028	-	0.974	-	0.00009	2.4	<0.00005	1.53	0.0241	<1	-	<0.000005	-	<0.00006
SGS	SW-04	2020-09-23	<0.00001	0.00049	0.0009	0.018	-	1.82	-	0.00007	5.87	<0.00005	2.52	0.0576	<1	-	<0.000005	-	0.00012
SGS	SW-04	2020-11-06	<0.00001	0.00013	0.0008	0.017	-	1.28	-	0.00005	2.57	<0.00005	1.94	0.0297	1	-	<0.000005	-	0.00009
SGS	SW-04	2021-08-24	-	0.00035	0.0011	<0.003	-	1.34	-	0.00011	2.7	<0.00005	2.73	0.0433	-	-	-	0.000005	0.00009
SGS	SW-04	2021-10-02	-	0.00032	0.0008	0.034	-	1.77	-	<0.00004	3.19	<0.00005	3.08	0.0385	1	-	-	<0.000005	0.00025
SGS	SW-04	2021-10-20	-	0.00027	0.0005	0.028	-	1.17	-	0.00004	2.05	<0.00005	1.65	0.027	1	-	-	<0.000005	<0.00006
SGS	SW-05	2020-06-28	0.00001	0.00031	0.0017	0.053	-	0.71	-	0.00019	5.8	<0.00005	1.63	0.031	<1	-	0.000012	-	0.00008
SGS	SW-05	2020-09-24	<0.00001	0.00052	0.0016	0.055	-	0.915	-	0.00014	5.89	<0.00005	1.57	0.0403	<1	-	0.000008	-	0.00016
SGS	SW-06	2020-06-28	0.00001	0.00045	0.002	0.032	-	0.631	-	0.00018	6.8	<0.00005	1.93	0.0351	<1	-	0.000007	-	0.00007
SGS	SW-06	2020-09-28	<0.00001	0.00079	0.0015	0.014	-	2	-	0.00013	7.55	<0.00005	2.47	0.063	<1	-	0.000007	-	<0.00006
SGS	SW-07	2020-06-28	0.00001	0.00024	0.003	0.05	-	1.68	-	0.00025	3.71	<0.00005	3.26	0.033	<1	-	0.000008	-	0.0008
SGS	SW-07	2020-09-28	<0.00001	0.0003	0.0013	0.024	-	1.3	-	0.00006	5.84	<0.00005	2.53	0.0495	<1	-	0.000005	-	<0.00024
SGS	SW-08	2020-06-27	<0.00001	0.00021	0.0009	0.028	-	0.914	-	0.00008	2.65	<0.00005	1.41	0.0223	<1	-	0.000006	-	<0.00006
SGS	SW-08	2020-09-24	<0.00001	0.00065	0.0012	0.024	-	2.3	-	0.00008	4.93	<0.00005	5.01	0.0752	<2	-	0.000008	-	<0.00006
SGS	SW-08	2021-05-15	<0.00001	0.00025	0.0005	0.025	-	1.06	-	0.00007	1.34	<0.00005	1.58	0.0274	2	-	-	<0.000005	<0.00006
SGS	SW-08A	2021-08-24	-	0.00051	0.0077	0.078	-	3.12	-	0.00025	13.2	<0.00005	7.01	0.0632	-	-	-	0.000053	0.00008
SGS	SW-08A	2021-10-02	-	0.00088	0.0018	0.033	-	2.97	-	0.00007	6.09	<0.00005	9.41	0.0803	5	-	-	<0.000005	0.00011
SGS	SW-08A	2021-10-19	-	0.00045	0.0014	0.051	-	1.55	-	0.0001	6.26	<0.00005	3.99	0.0448	3	-	-	0.000006	<0.00006
SGS	SW-09	2020-06-27	<0.00001	0.00021	0.0012	0.044	-	1.08	-	0.00011	3.12	<0.00005	1.65	0.0236	<1	-	0.000009	-	0.00008
SGS	SW-09	2020-09-24	<0.00001	0.00056	0.0014	0.03	-	1.91	-	0.00012	6.01	<0.00005	3.97	0.0617	<1	-	0.00001	-	0.00008
SGS	SW-09	2021-05-15	<0.00001	0.00022	0.0006	0.019	-	1.12	-	0.00009	1.89	<0.00005	1.57	0.0276	2	-	-	<0.000005	0.00009
SGS	SW-10	2020-06-27	<0.00001	0.00055	0.001	0.028	-	0.937	-	0.00008	2.88	<0.00005	2.27	0.0259	<1	-	<0.000005	-	0.00018
SGS	SW-10	2020-09-24	<0.00001	0.00064	0.0007	0.016	-	1.25	-	0.00008	3.31	<0.00005	2.36	0.0406	<1	-	<0.000005	-	0.00009
SGS	SW-10	2021-10-16	-	0.00088	0.0009	0.032	-	2.58	-	0.00005	4.54	<0.00005	3.39	0.0564	<1	-	-	<0.000005	0.00017
SGS	SW-11	2020-06-28	0.00001	0.00034	0.0035	0.031	-	0.935	-	0.0002	6.72	<0.00005	2.42	0.0382	<1	-	0.000008	-	0.00007
SGS	SW-11	2020-09-23	<0.00001	0.00056	0.0032	0.025	-	2	-	0.00017	5.08	<0.00005	3.49	0.0791	<1	-	0.000006	-	0.00011
SGS	SW-12	2020-06-28	0.00001	0.0002	0.0011	0.021	-	0.155	-	0.00015	6.61	<0.00005	1.57	0.0222	<1	-	0.000011	-	0.00012
SGS	SW-12	2020-09-29	<0.00001	0.00018	0.0009	0.023	-	0.514	-	0.00009	7.78	<0.00005	1.61	0.0256	<1	-	0.000014	-	0.00013
SGS	SW-12	2021-10-24	-	0.00023	0.0006	0.051	-	0.46	-	0.00016	6.5	<0.00005	1.51	0.0202	<1	-	-	0.000012	<0.00006
SGS	SW-13	2020-06-28	<0.00001	0.00015	0.0008	0.013	-	0.277	-	0.00013	2.77	<0.00005	18.9	0.0302	<1	-	0.000006	-	0.00008
SGS	SW-13	2020-09-29	<0.00001	0.00021	0.0009	0.022	-	0.905	-	0.0001	4.06	<0.00005	18	0.0418	<1	-	0.00001	-	0.00008
SGS	SW-13	2021-10-24	-	0.00021	0.0004	0.017	-	1.04	-	0.00008	3.78	<0.00005	17.1	0.0372	1	-	-	<0.000005	<0.00006

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Titanium - Total (mg/L)	Tungsten - Total (mg/L)	Uranium - Total (mg/L)	Vanadium - Total (mg/L)	Yttrium - Total (mg/L)	Zinc - Total (mg/L)	Zirconium - Total (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum Al-D (<0.2µm) (mg/L)	Antimony - Dissolved (mg/L)	Arsenic - Dissolved (mg/L)	Barium - Dissolved (mg/L)	Beryllium - Dissolved (mg/L)	Bismuth - Dissolved (mg/L)	Boron - Dissolved (mg/L)	Cadmium - Dissolved (mg/L)	Calcium - Dissolved (mg/L)
SGS	CR-DS	2021-06-03	0.0202	0.00003	0.000177	0.00143	-	0.005	<0.002	-	0.047	<0.0009	0.0026	0.00966	0.000011	<0.00001	0.006	0.000007	12.9
SGS	CR-DS	2021-07-23	-	0.00006	0.000087	0.00064	-	0.003	<0.002	0.012	0.006	-	-	-	-	-	-	-	-
SGS	CR-DS	2021-08-25	-	0.00003	0.000108	0.00072	-	<0.002	<0.002	0.031	0.006	-	-	-	-	-	-	-	-
SGS	CR-DS	2021-10-16	-	0.00004	0.000107	0.00076	-	<0.002	<0.002	-	0.005	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-06-03	0.0119	0.00004	0.00012	0.0008	-	0.002	<0.002	-	0.027	<0.0009	0.0042	0.00779	0.000007	<0.00001	0.006	0.000006	11.3
SGS	CR-REF	2021-07-23	-	0.00005	0.000089	0.00065	-	0.005	<0.002	0.01	0.005	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-08-25	-	0.00003	0.000112	0.00075	-	<0.002	<0.002	0.032	0.008	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-02	-	0.00007	0.000113	0.00066	-	<0.002	<0.002	0.057	0.046	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-16	-	0.00004	0.000108	0.00085	-	0.002	<0.002	-	0.01	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-TRIB-01	2021-08-24	-	<0.00002	0.000195	0.00087	-	<0.002	<0.002	0.018	0.01	-	-	-	-	-	-	-	-
SGS	DC-US	2021-06-02	0.0088	<0.00002	0.00025	0.00105	-	<0.002	<0.002	-	0.031	<0.0009	0.0017	0.00971	0.000008	<0.00001	0.005	0.000008	12.8
SGS	DC-US	2021-07-23	-	<0.00002	0.000138	0.00071	-	0.005	<0.002	0.015	0.009	-	-	-	-	-	-	-	-
SGS	DC-US	2021-08-24	-	<0.00002	0.000128	0.00115	-	0.002	<0.002	0.094	0.01	-	-	-	-	-	-	-	-
SGS	DC-US	2021-10-21	-	<0.00002	0.000116	0.00054	-	<0.002	<0.002	0.015	0.01	-	-	-	-	-	-	-	-
SGS	DC-US	2021-11-30	-	<0.00002	0.000132	0.00068	-	<0.002	<0.002	-	0.014	-	-	-	-	-	-	-	-
SGS	DUP	2021-10-24	-	<0.00002	0.000054	0.00035	-	0.003	<0.002	0.065	0.07	-	-	-	-	-	-	-	-
SGS	SW-01	2020-06-27	0.00303	<0.00002	0.000104	0.0006	-	0.005	<0.002	0.237	-	<0.0009	0.0042	0.00603	0.000015	<0.000007	0.004	0.000008	5.94
SGS	SW-01	2020-09-23	0.00857	<0.00002	0.000062	0.00112	-	0.005	<0.002	0.252	-	<0.0009	0.0039	0.00655	0.000018	0.000013	<0.002	0.000004	5.44
SGS	SW-01	2021-10-02	-	0.00002	0.000059	0.00099	-	0.003	<0.002	0.146	0.158	-	-	-	-	-	-	-	-
SGS	SW-01	2021-10-20	-	<0.00002	0.000056	0.00073	-	0.002	<0.002	0.218	0.262	-	-	-	-	-	-	-	-
SGS	SW-02	2020-06-27	0.00974	<0.00002	0.000046	0.00157	-	0.005	<0.002	0.132	-	<0.0009	0.0045	0.00761	0.000021	<0.000007	0.006	0.000012	11.8
SGS	SW-02	2020-09-23	0.0107	<0.00002	0.00003	0.00111	-	0.006	<0.002	0.06	-	<0.0009	0.0033	0.00691	0.000022	0.000012	<0.003	<0.000004	11.7
SGS	SW-03	2020-06-27	0.00643	<0.00002	0.000201	0.00088	-	0.002	<0.002	0.06	-	<0.0009	0.0018	0.00805	0.000012	<0.000007	0.005	<0.000004	9.4
SGS	SW-03	2020-09-23	0.0156	<0.00002	0.000654	0.00116	-	0.004	<0.002	0.009	-	<0.0009	0.0013	0.0112	<0.000007	0.000009	<0.004	<0.000004	29.7
SGS	SW-04	2020-06-27	0.00832	<0.00002	0.000204	0.00106	-	0.003	<0.002	0.059	-	<0.0009	0.0018	0.00817	0.000013	<0.000007	0.005	<0.000004	9.95
SGS	SW-04	2020-09-23	0.00815	0.00008	0.000648	0.00095	-	0.003	<0.002	0.056	-	<0.0009	0.0014	0.0118	<0.000007	<0.000007	<0.004	<0.000004	28.2
SGS	SW-04	2020-11-06	0.0162	<0.00002	0.000244	0.00126	-	0.002	<0.002	0.063	-	<0.0009	0.0016	0.00749	<0.000007	<0.000007	0.009	<0.000003	11.7
SGS	SW-04	2021-08-24	-	<0.00002	0.000232	0.00157	-	0.003	<0.002	0.111	0.011	-	-	-	-	-	-	-	-
SGS	SW-04	2021-10-02	-	0.00002	0.000221	0.00107	-	0.002	<0.002	0.129	<0.001	-	-	-	-	-	-	-	-
SGS	SW-04	2021-10-20	-	<0.00002	0.000165	0.00097	-	<0.002	<0.002	0.018	0.012	-	-	-	-	-	-	-	-
SGS	SW-05	2020-06-28	0.0114	<0.00002	0.000131	0.00161	-	0.007	<0.002	0.342	-	<0.0009	0.0072	0.0122	0.000029	<0.000007	0.004	0.000006	10
SGS	SW-05	2020-09-24	0.00947	<0.00002	0.000138	0.0019	-	0.006	<0.002	0.18	-	<0.0009	0.0053	0.00921	0.000024	0.000014	<0.002	0.000005	12.8
SGS	SW-06	2020-06-28	0.0101	<0.00002	0.000299	0.00153	-	0.01	<0.002	0.311	-	<0.0009	0.0041	0.0125	0.000034	<0.000007	0.004	0.000017	14.1
SGS	SW-06	2020-09-28	0.0038	<0.00002	0.00057	0.00059	-	0.002	<0.002	0.079	-	<0.0009	0.003	0.017	0.000023	<0.000007	<0.003	0.000006	24
SGS	SW-07	2020-06-28	0.00924	<0.00005	0.000125	0.00122	-	0.042	<0.002	0.31	-	<0.0009	0.0045	0.0134	0.000041	<0.000007	0.011	0.000015	17.7
SGS	SW-07	2020-09-28	0.0104	<0.00014	0.000085	0.00073	-	0.019	<0.002	0.02	-	<0.0009	0.0019	0.0103	0.000007	<0.000007	<0.002	0.000007	22.2
SGS	SW-08	2020-06-27	0.0123	0.00004	0.00021	0.00117	-	0.003	<0.002	0.057	-	<0.0009	0.0018	0.00817	0.000014	<0.000007	0.005	<0.000004	10.1
SGS	SW-08	2020-09-24	0.0174	0.00025	0.000827	0.0014	-	0.003	<0.002	0.015	-	<0.0009	0.0014	0.0182	0.000011	<0.000007	<0.008	0.000004	31.7
SGS	SW-08	2021-05-15	0.00372	<0.00002	0.000236	0.00069	-	0.003	<0.002	-	0.02	-	-	-	-	-	-	-	-
SGS	SW-08A	2021-08-24	-	0.00014	0.000464	0.0106	-	0.031	<0.002	1.53	0.098	-	-	-	-	-	-	-	-
SGS	SW-08A	2021-10-02	-	0.00136	0.000356	0.00093	-	0.03	<0.002	0.222	0.077	-	-	-	-	-	-	-	-
SGS	SW-08A	2021-10-19	-	0.00012	0.000161	0.00149	-	0.005	<0.002	0.081	0.067	-	-	-	-	-	-	-	-
SGS	SW-09	2020-06-27	0.0215	0.00003	0.000225	0.00165	-	0.004	<0.002	0.079	-	<0.0009	0.0019	0.00851	0.000015	<0.000007	0.005	<0.000004	10.1
SGS	SW-09	2020-09-24	0.0217	0.00009	0.000576	0.00161	-	0.004	<0.002	0.02	-	<0.0009	0.0016	0.0169	0.000013	<0.000007	<0.006	<0.000004	26.6
SGS	SW-09	2021-05-15	0.00385	<0.00002	0.000229	0.00076	-	<0.002	<0.002	-	0.027	-	-	-	-	-	-	-	-
SGS	SW-10	2020-06-27	0.00937	<0.00002	0.000118	0.00096	-	0.004	<0.002	0.063	-	<0.0009	0.0022	0.0092	0.000012	<0.000007	0.006	0.000006	13.7
SGS	SW-10	2020-09-24	0.00638	<0.00002	0.00011	0.00055	-	0.004	<0.002	0.03	-	<0.0009	0.0013	0.0113	0.000008	0.000007	<0.003	<0.000004	17.7
SGS	SW-10	2021-10-16	-	0.00023	0.000171	0.00046	-	0.007	<0.002	-	0.017	-	-	-	-	-	-	-	-
SGS	SW-11	2020-06-28	0.026	<0.00002	0.00019	0.00235	-	0.029	<0.002	0.395	-	<0.0009	0.0036	0.0149	0.000043	<0.000007	0.005	0.000021	15.5
SGS	SW-11	2020-09-23	0.00991	0.00003	0.000335	0.00126	-	0.274	<0.002	0.104	-	<0.0009	0.0033	0.0189	0.000033	<0.000007	<0.003	<0.000004	28.8
SGS	SW-12	2020-06-28	0.0139	0.00002	0.000385	0.00177	-	0.004	<0.002	0.626	-	<0.0009	0.0059	0.00945	0.000033	<0.000007	0.003	0.000013	5.84
SGS	SW-12	2020-09-29	0.0112	0.00004	0.000331	0.0012	-	0.009	<0.002	0.351	-	<0.0009	0.0035	0.00875	0.000025	0.000007	<0.002	0.000016	5.21
SGS	SW-12	2021-10-24	-	0.00003	0.000506	0.00139	-	0.003	<0.002	0.317	0.316	-	-	-	-	-	-	-	-
SGS	SW-13	2020-06-28	0.00408	<0.00002	0.000075	0.0008	-	0.003	<0.002	0.14	-	<0.0009	0.0041	0.0102	0.000017	<0.000007	0.005	0.000007	11.9
SGS	SW-13	2020-09-29	0.00701	<0.00002	0.000057	0.00068	-	0.003	<0.002	0.077	-	<0.0009	0.0034	0.00934	0.00001	<0.000007	<0.002	<0.000004	12
SGS	SW-13	2021-10-24	-	<0.00002	0.000056	0.00034	-	<0.002	<0.002	0.064	0.093	-	-	-	-	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Cesium - Dissolved (mg/L)	Chromium - Dissolved (mg/L)	Cobalt - Dissolved (mg/L)	Copper - Dissolved (mg/L)	Iron - Dissolved (mg/L)	Lead - Dissolved (mg/L)	Lithium - Dissolved (mg/L)	Magnesium - Dissolved (mg/L)	Manganese - Dissolved (mg/L)	Mercury - Dissolved (mg/L)	Molybdenum - Dissolved (mg/L)	Nickel - Dissolved (mg/L)	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Dissolved (ICPMS - Low Level) (mg/L)	Potassium - Dissolved (mg/L)	Rubidium - Dissolved (mg/L)	Selenium - Dissolved (mg/L)
SGS	CR-DS	2021-06-03	-	0.00027	0.000048	0.0013	0.17	<0.00009	0.0019	3.41	0.00117	<0.00001	0.00032	0.0008	0.013	-	1.16	-	0.0001
SGS	CR-DS	2021-07-23	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.012	-	-	-	-
SGS	CR-DS	2021-08-25	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	CR-DS	2021-10-16	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	CR-REF	2021-06-03	-	0.00021	0.000049	0.0014	0.052	<0.00009	0.0017	2.61	0.00104	<0.00001	0.00022	0.0011	0.019	-	0.95	-	0.00011
SGS	CR-REF	2021-07-23	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.003	-	-	-	-
SGS	CR-REF	2021-08-25	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	CR-REF	2021-10-02	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.011	-	-	-	-
SGS	CR-REF	2021-10-16	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-TRIB-01	2021-08-24	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	DC-US	2021-06-02	-	0.00028	0.000041	0.0009	0.234	0.00009	0.0019	3.56	0.00058	<0.00001	0.00029	0.0006	0.024	-	1.22	-	0.00013
SGS	DC-US	2021-07-23	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.007	-	-	-	-
SGS	DC-US	2021-08-24	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	DC-US	2021-10-21	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.008	-	-	-	-
SGS	DC-US	2021-11-30	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.009	-	-	-	-
SGS	DUP	2021-10-24	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.008	-	-	-	-
SGS	SW-01	2020-06-27	-	0.00056	0.000005	<0.0002	0.58	0.00009	0.001	1.43	0.00799	0.00001	0.00005	0.0009	0.01	-	0.189	-	0.00013
SGS	SW-01	2020-09-23	-	0.00063	0.000006	0.0005	0.515	0.00039	0.001	1.45	0.0021	<0.00001	0.00013	0.0007	<0.003	-	0.193	-	0.00015
SGS	SW-01	2021-10-02	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.005	-	-	-	-
SGS	SW-01	2021-10-20	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.012	-	-	-	-
SGS	SW-02	2020-06-27	-	0.00047	<0.000004	<0.0002	0.343	0.00003	0.0018	2.98	0.00126	<0.00001	0.00004	0.0012	0.016	-	0.192	-	0.00011
SGS	SW-02	2020-09-23	-	0.00042	<0.000004	0.0011	0.23	0.00002	0.002	3.08	0.0011	<0.00001	0.00013	0.0011	<0.018	-	0.645	-	0.00009
SGS	SW-03	2020-06-27	-	0.00042	<0.000004	<0.0002	0.349	0.00008	0.0016	2.7	0.00337	<0.00001	0.00015	0.0007	0.012	-	0.865	-	0.00011
SGS	SW-03	2020-09-23	-	0.00021	<0.000004	0.0008	0.117	0.00002	0.004	6.67	0.0003	<0.00001	0.00045	0.0006	<0.006	-	2.01	-	0.00004
SGS	SW-04	2020-06-27	-	0.00036	<0.000004	<0.0002	0.29	0.00006	0.0015	2.85	0.00195	<0.00001	0.0002	0.0006	0.015	-	0.875	-	0.0001
SGS	SW-04	2020-09-23	-	0.00026	<0.000004	0.0006	0.185	0.00004	0.004	6.73	0.0005	<0.00001	0.00041	0.0006	<0.005	-	1.64	-	0.00005
SGS	SW-04	2020-11-06	-	0.00033	0.000045	0.0011	0.227	0.00007	0.0016	3.32	0.00121	0.00001	0.00081	0.0005	<0.003	-	1.2	-	0.00005
SGS	SW-04	2021-08-24	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	SW-04	2021-10-02	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.011	-	-	-	-
SGS	SW-04	2021-10-20	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.011	-	-	-	-
SGS	SW-05	2020-06-28	-	0.00128	0.000095	<0.0002	2.17	0.00007	0.0018	2.72	0.0146	0.00001	0.00026	0.0018	0.032	-	0.692	-	0.00017
SGS	SW-05	2020-09-24	-	0.00127	0.000042	0.0014	1.27	0.00006	0.002	4.05	0.004	<0.00001	0.00047	0.0014	<0.017	-	0.827	-	0.00014
SGS	SW-06	2020-06-28	-	0.0012	0.000064	<0.0008	0.926	0.00006	0.0022	3.96	0.00444	<0.00001	0.00044	0.0019	0.013	-	0.604	-	0.00018
SGS	SW-06	2020-09-28	-	0.00063	0.000029	0.0009	0.555	0.00004	0.0038	7.49	0.0016	<0.00001	0.00079	0.0013	<0.005	-	1.88	-	0.00008
SGS	SW-07	2020-06-28	-	0.00123	0.000043	<0.0002	0.804	0.00004	0.0022	3.94	0.00914	<0.00001	0.00022	0.0028	0.017	-	1.65	-	0.00027
SGS	SW-07	2020-09-28	-	0.00023	0.000004	0.001	0.106	0.00002	0.0022	5.1	0.0002	<0.00001	0.00031	0.001	<0.003	-	1.06	-	0.00008
SGS	SW-08	2020-06-27	-	0.0004	<0.000004	<0.0002	0.32	0.00007	0.0016	2.86	0.00266	<0.00001	0.0002	0.0007	0.013	-	0.873	-	0.00009
SGS	SW-08	2020-09-24	-	0.0003	<0.000004	0.0008	0.203	0.00004	0.0048	8.93	0.0015	<0.00001	0.00066	0.0008	<0.011	-	2.05	-	0.00008
SGS	SW-08	2021-05-15	-	-	-	-	-	-	-	-	-	<0.00001	-	-	-	-	-	-	-
SGS	SW-08A	2021-08-24	-	-	-	-	-	-	-	-	-	0.00002	-	-	0.043	-	-	-	-
SGS	SW-08A	2021-10-02	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.029	-	-	-	-
SGS	SW-08A	2021-10-19	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.005	-	-	-	-
SGS	SW-09	2020-06-27	-	0.00042	<0.000004	<0.0002	0.356	0.00008	0.0016	2.9	0.0029	<0.00001	0.00019	0.0007	0.02	-	0.932	-	0.00012
SGS	SW-09	2020-09-24	-	0.0004	<0.000004	0.0011	0.216	0.00006	0.0036	7.69	0.0021	<0.00001	0.00055	0.0008	<0.006	-	1.74	-	0.00011
SGS	SW-09	2021-05-15	-	-	-	-	-	-	-	-	-	<0.00001	-	-	-	-	-	-	-
SGS	SW-10	2020-06-27	-	0.00034	<0.000004	<0.0002	0.171	0.00002	0.0022	3.93	0.00091	<0.00001	0.00057	0.001	0.01	-	0.843	-	0.00011
SGS	SW-10	2020-09-24	-	0.00026	<0.000004	0.0006	0.081	<0.00001	0.0032	5.75	0.0004	<0.00001	0.00064	0.0005	<0.006	-	1.16	-	0.0001
SGS	SW-10	2021-10-16	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.003	-	-	-	-
SGS	SW-11	2020-06-28	-	0.00103	0.00003	<0.002	0.456	0.0001	0.0021	5.08	0.00135	<0.00001	0.00032	0.0029	0.011	-	0.845	-	0.00025
SGS	SW-11	2020-09-23	-	0.00075	<0.000004	0.0012	0.354	<0.00001	0.0037	9.81	0.003	<0.00001	0.00056	0.0028	<0.003	-	1.65	-	0.00019
SGS	SW-12	2020-06-28	-	0.00115	0.000096	<0.0003	0.618	0.00018	0.0015	1.48	0.00961	<0.00001	0.0002	0.0011	0.01	-	0.198	-	0.00016
SGS	SW-12	2020-09-29	-	0.00085	0.000028	0.001	0.572	0.00008	0.0013	1.56	0.003	<0.00001	0.00017	0.0007	<0.003	-	0.436	-	0.0001
SGS	SW-12	2021-10-24	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.009	-	-	-	-
SGS	SW-13	2020-06-28	-	0.0005	0.000004	<0.0002	0.34	0.00002	0.0015	3.6	0.00112	<0.00001	0.00015	0.0009	0.014	-	0.286	-	0.00013
SGS	SW-13	2020-09-29	-	0.00049	0.000043	0.0003	0.389	0.00002	0.0015	3.84	0.016	<0.00001	0.0002	0.0007	<0.008	-	0.744	-	0.00007
SGS	SW-13	2021-10-24	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.013	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Silicon - Dissolved (mg/L)	Silver - Dissolved (mg/L)	Sodium - Dissolved (mg/L)	Strontium - Dissolved (mg/L)	Sulfur - Dissolved (mg/L)	Tellurium - Dissolved (mg/L)	Thallium - Dissolved (mg/L)	Thorium - Dissolved (mg/L)	Tin - Dissolved (mg/L)	Titanium - Dissolved (mg/L)	Tungsten - Dissolved (mg/L)	Uranium - Dissolved (mg/L)	Vanadium - Dissolved (mg/L)	Yttrium - Dissolved (mg/L)	Zinc - Dissolved (mg/L)	Zirconium - Dissolved (mg/L)	MeHg-LL-T (ng/L)
SGS	CR-DS	2021-06-03	1.42	<0.00005	2	0.028	1	-	<0.000005	-	<0.00006	0.00178	0.00002	0.000154	0.00055	-	<0.002	<0.002	-
SGS	CR-DS	2021-07-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-DS	2021-08-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-DS	2021-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-06-03	1.24	<0.00005	2.31	0.0275	2	-	<0.000005	-	<0.00006	0.001	0.00003	0.0001	0.00033	-	<0.002	<0.002	-
SGS	CR-REF	2021-07-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-08-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.031
SGS	CR-REF	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.026
SGS	DC-TRIB-01	2021-08-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-US	2021-06-02	1.06	<0.00005	1.67	0.0278	<1	-	<0.000005	-	<0.00006	0.00145	<0.00002	0.000219	0.00063	-	<0.002	<0.002	-
SGS	DC-US	2021-07-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-US	2021-08-24	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-US	2021-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DC-US	2021-11-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	DUP	2021-10-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-01	2020-06-27	2.35	<0.00005	1.08	0.0147	<1	-	<0.000005	-	<0.00006	0.0024	<0.00002	0.000035	0.00049	-	0.002	<0.002	-
SGS	SW-01	2020-09-23	1.52	<0.00005	1.03	0.0168	<1	-	<0.000005	-	0.0001	0.00314	0.00002	0.000047	0.00051	-	0.003	<0.002	-
SGS	SW-01	2021-10-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-01	2021-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-02	2020-06-27	1.75	<0.00005	0.96	0.0242	<1	-	<0.000005	-	<0.00006	0.00408	<0.00002	0.000029	0.00109	-	0.003	<0.002	-
SGS	SW-02	2020-09-23	3.27	<0.00005	1.13	0.0286	<1	-	<0.000005	-	0.00006	0.00221	0.00003	0.000026	0.00058	-	0.003	<0.002	-
SGS	SW-03	2020-06-27	2.14	<0.00005	1.36	0.0208	<1	-	<0.000005	-	<0.00006	0.00254	<0.00002	0.000188	0.0006	-	<0.002	<0.002	-
SGS	SW-03	2020-09-23	5	<0.00005	2.36	0.0524	<1	-	<0.000005	-	<0.00006	0.00056	0.00003	0.000578	0.00036	-	0.002	<0.002	-
SGS	SW-04	2020-06-27	2.16	<0.00005	1.38	0.0218	<1	-	<0.000005	-	<0.00006	0.0021	<0.00002	0.000175	0.0006	-	<0.002	<0.002	-
SGS	SW-04	2020-09-23	4.94	<0.00005	2.37	0.0516	<1	-	<0.000005	-	<0.00006	0.00138	0.00004	0.000613	0.0004	-	<0.002	<0.002	-
SGS	SW-04	2020-11-06	1.82	<0.00005	1.95	0.0269	1	-	<0.000005	-	<0.00006	0.002	0.00021	0.000161	0.00051	-	<0.002	<0.002	-
SGS	SW-04	2021-08-24	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-04	2021-10-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-04	2021-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-05	2020-06-28	5.5	<0.00005	1.56	0.0292	<1	-	<0.000009	-	<0.00006	0.00841	<0.00002	0.000121	0.00107	-	0.005	<0.002	-
SGS	SW-05	2020-09-24	5.35	<0.00005	1.63	0.0376	<1	-	<0.000009	-	<0.00006	0.00523	0.00002	0.000123	0.00081	-	0.003	<0.002	-
SGS	SW-06	2020-06-28	6.17	<0.00005	1.93	0.0349	<1	-	<0.000005	-	<0.00006	0.00734	<0.00002	0.000284	0.00131	-	0.002	<0.002	-
SGS	SW-06	2020-09-28	6.87	<0.00005	2.51	0.0581	<1	-	<0.000005	-	<0.00006	0.00303	0.00002	0.000533	0.00051	-	0.002	<0.002	-
SGS	SW-07	2020-06-28	3.63	<0.00005	3.32	0.032	<1	-	<0.000007	-	<0.00006	0.00539	<0.00002	0.000118	0.00082	-	0.032	<0.002	-
SGS	SW-07	2020-09-28	5.1	<0.00005	2.42	0.0434	<1	-	<0.000005	-	<0.00006	0.00066	0.00004	0.000052	0.00027	-	0.004	<0.002	-
SGS	SW-08	2020-06-27	2.17	<0.00005	1.39	0.022	<1	-	<0.000005	-	<0.00006	0.00236	<0.00002	0.00018	0.00064	-	<0.002	<0.002	-
SGS	SW-08	2020-09-24	4.51	<0.00005	4.88	0.0707	<2	-	<0.000005	-	<0.00006	0.00535	0.00026	0.000778	0.00048	-	<0.002	<0.002	-
SGS	SW-08	2021-05-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-08A	2021-08-24	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-08A	2021-10-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-08A	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-09	2020-06-27	2.22	<0.00005	1.44	0.0217	<1	-	<0.000005	-	<0.00006	0.00326	<0.00002	0.000191	0.00075	-	<0.002	<0.002	-
SGS	SW-09	2020-09-24	4.76	<0.00005	3.7	0.059	<1	-	<0.000005	-	<0.00006	0.00554	0.0001	0.000526	0.00067	-	<0.002	<0.002	-
SGS	SW-09	2021-05-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-10	2020-06-27	2.53	<0.00005	2.18	0.0251	<1	-	<0.000005	-	<0.00063	0.00207	<0.00002	0.000108	0.00054	-	0.002	<0.002	-
SGS	SW-10	2020-09-24	2.86	<0.00005	2.38	0.0382	<1	-	<0.000005	-	<0.00006	0.00081	0.00002	0.000107	0.00026	-	<0.002	<0.002	-
SGS	SW-10	2021-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-11	2020-06-28	7.1	<0.00005	2.32	0.0361	<1	-	<0.000006	-	<0.00006	0.0111	<0.00002	0.00017	0.00173	-	0.027	<0.002	-
SGS	SW-11	2020-09-23	4.47	<0.00005	3.12	0.0701	<1	-	<0.000005	-	<0.00006	0.00321	0.00002	0.000308	0.00078	-	0.152	<0.002	-
SGS	SW-12	2020-06-28	6.29	<0.00005	1.62	0.0217	<1	-	<0.00001	-	<0.00012	0.00927	<0.00002	0.000371	0.00153	-	0.003	<0.002	-
SGS	SW-12	2020-09-29	7.21	<0.00005	1.55	0.022	<1	-	<0.000009	-	<0.00006	0.00595	0.00003	0.000247	0.00073	-	0.008	<0.002	-
SGS	SW-12	2021-10-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-13	2020-06-28	2.75	<0.00005	20.2	0.0315	<1	-	<0.000009	-	<0.00006	0.00276	<0.00002	0.00008	0.00068	-	<0.002	<0.002	-
SGS	SW-13	2020-09-29	3.62	<0.00005	16.4	0.0363	<1	-	<0.000008	-	<0.00006	0.00172	<0.00002	0.000043	0.00035	-	<0.002	<0.002	-
SGS	SW-13	2021-10-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Hg-LL-T (ng/L)	Ra-226 (Bq/L)	O / G (mg/L)
SGS	CR-DS	2021-06-03	-	-	-
SGS	CR-DS	2021-07-23	-	-	-
SGS	CR-DS	2021-08-25	-	-	-
SGS	CR-DS	2021-10-16	-	-	-
SGS	CR-REF	2021-06-03	-	-	-
SGS	CR-REF	2021-07-23	-	-	-
SGS	CR-REF	2021-08-25	-	-	-
SGS	CR-REF	2021-10-02	-	-	-
SGS	CR-REF	2021-10-16	-	-	-
SGS	CR-REF	2021-10-19	0.74	-	-
SGS	CR-REF	2021-10-19	-	-	-
SGS	DC-TRIB-01	2021-08-24	-	-	-
SGS	DC-US	2021-06-02	-	-	-
SGS	DC-US	2021-07-23	-	-	-
SGS	DC-US	2021-08-24	-	-	-
SGS	DC-US	2021-10-21	-	-	-
SGS	DC-US	2021-11-30	-	-	-
SGS	DUP	2021-10-24	-	-	-
SGS	SW-01	2020-06-27	-	-	-
SGS	SW-01	2020-09-23	-	-	-
SGS	SW-01	2021-10-02	-	-	-
SGS	SW-01	2021-10-20	-	-	-
SGS	SW-02	2020-06-27	-	-	-
SGS	SW-02	2020-09-23	-	-	-
SGS	SW-03	2020-06-27	-	-	-
SGS	SW-03	2020-09-23	-	-	-
SGS	SW-04	2020-06-27	-	-	-
SGS	SW-04	2020-09-23	-	-	-
SGS	SW-04	2020-11-06	-	-	-
SGS	SW-04	2021-08-24	-	-	-
SGS	SW-04	2021-10-02	-	-	-
SGS	SW-04	2021-10-20	-	-	-
SGS	SW-05	2020-06-28	-	-	-
SGS	SW-05	2020-09-24	-	-	-
SGS	SW-06	2020-06-28	-	-	-
SGS	SW-06	2020-09-28	-	-	-
SGS	SW-07	2020-06-28	-	-	-
SGS	SW-07	2020-09-28	-	-	-
SGS	SW-08	2020-06-27	-	-	-
SGS	SW-08	2020-09-24	-	-	-
SGS	SW-08	2021-05-15	-	-	2
SGS	SW-08A	2021-08-24	-	-	-
SGS	SW-08A	2021-10-02	-	-	-
SGS	SW-08A	2021-10-19	-	-	-
SGS	SW-09	2020-06-27	-	-	-
SGS	SW-09	2020-09-24	-	-	-
SGS	SW-09	2021-05-15	-	-	<2
SGS	SW-10	2020-06-27	-	-	-
SGS	SW-10	2020-09-24	-	-	-
SGS	SW-10	2021-10-16	-	-	-
SGS	SW-11	2020-06-28	-	-	-
SGS	SW-11	2020-09-23	-	-	-
SGS	SW-12	2020-06-28	-	-	-
SGS	SW-12	2020-09-29	-	-	-
SGS	SW-12	2021-10-24	-	-	-
SGS	SW-13	2020-06-28	-	-	-
SGS	SW-13	2020-09-29	-	-	-
SGS	SW-13	2021-10-24	-	-	-

Note: This is 2020 and 2021 data collected by Blue Heron.

Data Source	Current Station Nam	Date and time	pH - Field (pH units)	pH - Lab (pH units)	Temperature - Field (°C)	Acidity (as CaCO3) (mg/L)	Alkalinity - Total (as CaCO3) (mg/L)	Alkalinity - Bicarbonate (as CaCO3) (mg/L)	Alkalinity - Carbonate (as CaCO3) (mg/L)	Alkalinity - Hydroxide (as CaCO3) (mg/L)	Alkalinity - Phenolphthalein (as CaCO3) (mg/L)	Hardness - Total (as CaCO3) (mg/L)	Hardness - Dissolved (as CaCO3) (mg/L)	TOC (mg/L)	DOC (mg/L)	Solids - Total Dissolved (mg/L)	Solids - Total Suspended (mg/L)	Turb. (NTU)	Conductivity - Lab (µS/cm)
SGS	SW-14	2020-06-28	7.33	7.48	24.1	<2	-	-	37	-	-	40.7	40.9	16	16	63	6	50.7	88
SGS	SW-14	2020-09-23	5.82	7.14	12.2	<2	-	-	44	-	-	44.7	41	17	17	91	5	-	107
SGS	SW-14	2021-08-24	-	7.18	-	<2	-	-	54	-	-	-	55.8	18	19	103	34	-	115
SGS	SW-14	2021-10-16	-	7.37	-	<2	-	-	49	-	-	50	-	17	16	86	3	-	108
SGS	SW-14	2021-11-30	-	7.72	-	<2	-	-	52	-	-	57	-	18	18	63	3	-	115
SGS	SW-15	2020-06-28	6.62	7.25	23.6	<2	-	-	38	-	-	43.5	41.3	19	19	69	9	44.2	76
SGS	SW-15	2020-09-29	6.82	8.03	11.7	<2	-	-	74	-	-	76.5	70.8	18	19	109	6	-	146
SGS	SW-15	2020-11-06	6.9	7.57	1.5	<2	-	-	65	-	-	67.7	62.7	16	16	100	10	-	137
SGS	SW-15	2021-07-23	-	7.37	-	<2	-	-	45	-	-	53.5	-	14	14	86	12	-	108
SGS	SW-15	2021-08-25	-	7.7	-	<2	-	-	64	-	-	69.6	-	16	16	83	7	-	124
SGS	SW-15	2021-10-02	-	7.78	-	<2	-	-	88	-	-	86.2	-	21	20	149	8	-	169
SGS	SW-15	2021-10-16	-	7.56	-	<2	-	-	97	-	-	94.6	-	18	17	143	5	-	181
SGS	SW-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-16	2021-10-16	-	6.31	-	2	-	-	5	-	-	5.77	-	6	6	<30	3	-	27
SGS	SW-17	2021-11-30	-	7.49	-	<2	-	-	37	-	-	53.6	-	4	5	106	<2	-	200
SGS	SW-DUP-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Conductivity - Field (µS/cm)	Chloride (mg/L)	Fluoride (mg/L)	Sulphate (as SO4) (mg/L)	Ammonia - Total (as N) (mg/L)	Ammonia - Unionized (as N) (mg/L)	Ammonia+Ammonium (N) (mg/L)	Nitrite (as N) (mg/L)	Nitrate (as N) (mg/L)	Nitrate + Nitrite (as N) (mg/L)	Phosphorus - Total by Colour (mg/L)	DO (mg/L)	COD (mg/L)	Cyanide - Total (mg/L)	Cyanide - Free (mg/L)	Cyanide - WAD (mg/L)	Aluminum - Total (mg/L)
SGS	SW-14	2020-06-28	85.4	5	<0.06	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	6.49	42	<0.01	-	-	0.054
SGS	SW-14	2020-09-23	177	5	<0.08	<2	-	-	0.1	<0.03	<0.06	<0.06	-	9.7	57	<0.01	-	-	0.114
SGS	SW-14	2021-08-24	-	7	<0.06	<2	-	-	<0.1	0.06	<0.03	0.06	-	-	52	-	-	-	0.074
SGS	SW-14	2021-10-16	-	7	0.08	<2	-	-	<0.04	<0.03	<0.06	<0.06	-	-	55	-	-	-	0.023
SGS	SW-14	2021-11-30	-	9	0.09	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	-	53	-	-	-	0.022
SGS	SW-15	2020-06-28	34.8	2	<0.06	<2	-	-	<0.1	<0.03	<0.06	<0.06	-	5.55	52	<0.01	-	-	0.257
SGS	SW-15	2020-09-29	122	2	<0.11	<2	-	-	0.2	<0.03	<0.06	<0.06	-	9.67	51	<0.01	-	-	0.123
SGS	SW-15	2020-11-06	-	2	0.11	<2	-	-	<0.1	0.12	<0.06	0.12	-	-	51	<0.01	-	-	0.309
SGS	SW-15	2021-07-23	-	<1	0.12	<2	-	-	<0.1	0.11	<0.06	0.11	-	-	34	-	-	-	0.283
SGS	SW-15	2021-08-25	-	<1	0.11	<2	-	-	<0.1	<0.06	<0.03	<0.06	-	-	31	-	-	-	0.195
SGS	SW-15	2021-10-02	-	1	0.12	<20	-	-	<0.1	<0.03	<0.06	<0.06	-	-	53	-	-	-	0.174
SGS	SW-15	2021-10-16	-	<1	0.12	<2	-	-	0.1	<0.03	<0.06	<0.06	-	-	51	-	-	-	0.222
SGS	SW-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-16	2021-10-16	-	3	<0.06	<2	-	-	<0.04	<0.03	0.15	0.15	-	-	25	-	-	-	0.151
SGS	SW-17	2021-11-30	-	44	0.15	3	-	-	<0.1	<0.03	0.15	0.15	-	-	15	-	-	-	0.017
SGS	SW-DUP-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Antimony - Total (mg/L)	Arsenic - Total (mg/L)	Barium - Total (mg/L)	Beryllium - Total (mg/L)	Bismuth - Total (mg/L)	Boron - Total (mg/L)	Cadmium - Total (mg/L)	Calcium - Total (mg/L)	Cesium - Total (mg/L)	Chromium - Total (mg/L)	Cobalt - Total (mg/L)	Copper - Total (mg/L)	Iron - Total (mg/L)	Lead - Total (mg/L)	Lithium - Total (mg/L)	Magnesium - Total (mg/L)	Manganese - Total (mg/L)
SGS	SW-14	2020-06-28	<0.0009	0.0023	0.00753	0.000008	<0.000007	0.005	<0.000003	10.5	-	0.00015	0.000039	<0.0002	0.116	0.00003	0.0017	3.5	0.00748
SGS	SW-14	2020-09-23	<0.0009	0.0019	0.011	0.000011	0.000013	0.003	<0.000003	11.3	-	0.00038	0.000043	0.0004	0.172	0.00009	0.0021	3.99	0.013
SGS	SW-14	2021-08-24	<0.0009	0.0025	0.00996	<0.000007	<0.00001	0.004	0.000007	13.4	-	0.00043	0.000071	0.0005	0.316	0.00014	0.0015	5.43	0.017
SGS	SW-14	2021-10-16	<0.0009	0.0015	0.0107	<0.000007	<0.00001	0.006	<0.000003	12.7	-	0.00066	0.000031	0.0003	0.056	<0.00009	0.0022	4.44	0.0113
SGS	SW-14	2021-11-30	<0.0009	0.0015	0.0114	<0.000007	<0.00001	0.006	0.000003	15.4	-	0.00015	0.000025	0.0005	0.032	<0.00009	0.0022	4.53	0.00266
SGS	SW-15	2020-06-28	<0.0009	0.0022	0.011	0.000018	0.000008	0.005	0.000005	11.7	-	0.00067	0.000229	0.0007	0.645	0.00014	0.002	3.47	0.0366
SGS	SW-15	2020-09-29	<0.0009	0.0018	0.0168	0.000017	0.000011	0.004	0.00001	20.2	-	0.0006	0.000085	0.0008	0.252	0.00011	0.0038	6.3	0.0328
SGS	SW-15	2020-11-06	<0.0009	0.0017	0.0146	0.000008	<0.000007	0.01	<0.000003	18.5	-	0.00099	0.000219	0.0021	0.628	0.00034	0.0026	5.24	0.0305
SGS	SW-15	2021-07-23	<0.0009	0.003	0.0122	0.000014	<0.00001	0.009	0.000007	14.9	-	0.00087	0.00031	0.0013	0.673	0.00024	0.0024	3.98	0.0538
SGS	SW-15	2021-08-25	<0.0009	0.0028	0.0122	0.000007	<0.00001	0.005	0.000004	18.5	-	0.00075	0.000207	0.0011	0.378	0.00014	0.0021	5.71	0.0617
SGS	SW-15	2021-10-02	<0.0009	0.0025	0.018	0.000017	<0.00001	0.008	<0.000003	23.5	-	0.00079	0.000191	0.0009	0.503	0.00022	0.0038	6.72	0.0453
SGS	SW-15	2021-10-16	<0.0009	0.0019	0.0182	0.000013	<0.00001	0.009	0.000004	26	-	0.00162	0.000185	0.0009	0.481	0.00019	0.004	7.23	0.0659
SGS	SW-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-16	2021-10-16	<0.0009	0.001	0.00502	0.000008	0.00001	0.006	0.000004	1.57	-	0.00177	0.000412	0.0011	0.324	0.00015	0.0008	0.448	0.034
SGS	SW-17	2021-11-30	<0.0009	0.0008	0.00958	<0.000007	<0.00001	0.005	<0.000003	16.4	-	0.0003	0.000171	0.0005	0.569	<0.00009	0.0022	3.04	0.0526
SGS	SW-DUP-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Mercury - Total (mg/L)	Molybdenum - Total (mg/L)	Nickel - Total (mg/L)	Phosphorus - Total by ICPMS (mg/L)	Phosphorus - Total (ICPMS - Low Level) (mg/L)	Potassium - Total (mg/L)	Rubidium - Total (mg/L)	Selenium - Total (mg/L)	Silicon - Total (mg/L)	Silver - Total (mg/L)	Sodium - Total (mg/L)	Strontium - Total (mg/L)	Sulfur - Total (mg/L)	Tellurium - Total (mg/L)	Thallium - Total (mg/L)	Thorium - Total (mg/L)	Tin - Total (mg/L)
SGS	SW-14	2020-06-28	<0.00001	0.00014	0.0004	0.052	-	1.11	-	0.00009	0.52	<0.00005	3.74	0.0244	<1	-	<0.000005	-	<0.00006
SGS	SW-14	2020-09-23	<0.00001	0.00017	0.0005	0.058	-	1.51	-	0.00009	0.38	<0.00005	4.18	0.0316	<1	-	0.000005	-	0.00008
SGS	SW-14	2021-08-24	-	0.00016	0.0005	0.005	-	1.1	-	0.00011	0.38	<0.00005	5.6	0.0373	-	-	-	<0.000005	<0.00006
SGS	SW-14	2021-10-16	-	0.00024	0.0004	<0.003	-	1.25	-	0.00008	0.24	<0.00005	5.01	0.0313	<1	-	-	<0.000005	0.00008
SGS	SW-14	2021-11-30	-	0.00022	0.0011	0.076	-	1.57	-	0.00009	0.3	<0.00005	5.7	0.0359	2	-	-	<0.000005	0.00008
SGS	SW-15	2020-06-28	<0.00001	0.00032	0.001	0.022	-	0.895	-	0.00009	2.6	<0.00005	1.6	0.0242	<1	-	<0.000005	-	0.00012
SGS	SW-15	2020-09-29	<0.00001	0.0008	0.0008	0.007	-	1.4	-	0.00008	3.79	<0.00005	2.57	0.0432	<1	-	<0.000005	-	0.00006
SGS	SW-15	2020-11-06	<0.00001	0.0003	0.0008	0.011	-	1.77	-	<0.00004	3.63	<0.00005	2.74	0.0395	2	-	<0.000005	-	0.00012
SGS	SW-15	2021-07-23	-	0.00023	0.0004	0.011	-	1.13	-	0.0001	1.78	<0.00005	1.74	0.0317	<1	-	-	0.000006	0.0001
SGS	SW-15	2021-08-25	-	0.00172	0.0009	<0.003	-	1.18	-	0.00014	1.53	<0.00005	4.07	0.0432	5	-	-	0.000005	<0.00006
SGS	SW-15	2021-10-02	-	0.00119	0.0012	0.018	-	1.95	-	0.00006	3.86	<0.00005	4.4	0.0481	1	-	-	<0.000005	0.00019
SGS	SW-15	2021-10-16	-	0.00091	0.0007	0.021	-	2.15	-	0.00013	3.8	<0.00005	3.28	0.0514	<1	-	-	<0.000005	<0.00006
SGS	SW-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-16	2021-10-16	-	0.0001	0.0006	0.032	-	0.811	-	<0.00004	0.96	<0.00005	3.12	0.0103	<1	-	-	0.000006	<0.00006
SGS	SW-17	2021-11-30	-	0.00047	0.0011	0.068	-	1.27	-	<0.00004	8.33	<0.00005	20.3	0.04639	3	-	-	<0.000005	<0.00006
SGS	SW-DUP-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Titanium - Total (mg/L)	Tungsten - Total (mg/L)	Uranium - Total (mg/L)	Vanadium - Total (mg/L)	Yttrium - Total (mg/L)	Zinc - Total (mg/L)	Zirconium - Total (mg/L)	Aluminum - Dissolved (mg/L)	Aluminum Al-D (<0.2µm) (mg/L)	Antimony - Dissolved (mg/L)	Arsenic - Dissolved (mg/L)	Barium - Dissolved (mg/L)	Beryllium - Dissolved (mg/L)	Bismuth - Dissolved (mg/L)	Boron - Dissolved (mg/L)	Cadmium - Dissolved (mg/L)	Calcium - Dissolved (mg/L)
SGS	SW-14	2020-06-28	0.00168	<0.00002	0.000041	0.00035	-	0.003	<0.002	0.026	-	<0.0009	0.0022	0.0071	0.000008	<0.000007	0.004	<0.000004	10.7
SGS	SW-14	2020-09-23	0.00414	<0.00002	0.000037	0.00039	-	0.003	<0.002	0.008	-	<0.0009	0.0016	0.00887	0.000007	<0.000007	<0.003	<0.000004	10.4
SGS	SW-14	2021-08-24	-	<0.00002	0.000162	0.00045	-	0.003	<0.002	0.04	0.009	-	-	-	-	-	-	-	-
SGS	SW-14	2021-10-16	-	<0.00002	0.000041	0.00025	-	0.015	<0.002	-	0.008	-	-	-	-	-	-	-	-
SGS	SW-14	2021-11-30	-	<0.00002	0.000046	0.0003	-	<0.002	<0.002	-	0.028	-	-	-	-	-	-	-	-
SGS	SW-15	2020-06-28	0.0117	0.00002	0.000173	0.00126	-	0.004	<0.002	0.073	-	<0.0009	0.0021	0.00879	0.000014	<0.000007	0.005	<0.000004	11.3
SGS	SW-15	2020-09-29	0.00447	0.00004	0.000169	0.00058	-	0.003	<0.002	0.023	-	<0.0009	0.0017	0.0138	0.000007	<0.000007	<0.004	<0.000004	18.9
SGS	SW-15	2020-11-06	0.0129	0.00007	0.00026	0.00101	-	0.003	<0.002	0.046	-	<0.0009	0.0015	0.00971	<0.000007	<0.000007	0.009	<0.000003	16.8
SGS	SW-15	2021-07-23	-	0.00003	0.000203	0.0012	-	0.007	<0.002	0.017	0.009	-	-	-	-	-	-	-	-
SGS	SW-15	2021-08-25	-	0.00004	0.000181	0.00109	-	<0.002	<0.002	0.057	0.011	-	-	-	-	-	-	-	-
SGS	SW-15	2021-10-02	-	0.00005	0.000242	0.0013	-	0.002	<0.002	0.148	0.031	-	-	-	-	-	-	-	-
SGS	SW-15	2021-10-16	-	0.00005	0.00027	0.00099	-	0.003	<0.002	-	0.029	-	-	-	-	-	-	-	-
SGS	SW-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-16	2021-10-16	-	0.00008	0.000055	0.00083	-	0.108	<0.002	-	0.091	-	-	-	-	-	-	-	-
SGS	SW-17	2021-11-30	-	<0.00002	0.000175	0.00032	-	<0.002	<0.002	-	0.017	-	-	-	-	-	-	-	-
SGS	SW-DUP-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Cesium - Dissolved (mg/L)	Chromium - Dissolved (mg/L)	Cobalt - Dissolved (mg/L)	Copper - Dissolved (mg/L)	Iron - Dissolved (mg/L)	Lead - Dissolved (mg/L)	Lithium - Dissolved (mg/L)	Magnesium - Dissolved (mg/L)	Manganese - Dissolved (mg/L)	Mercury - Dissolved (mg/L)	Molybdenum - Dissolved (mg/L)	Nickel - Dissolved (mg/L)	Phosphorus - Dissolved by ICPMS (mg/L)	Phosphorus - Dissolved (ICPMS - Low Level) (mg/L)	Potassium - Dissolved (mg/L)	Rubidium - Dissolved (mg/L)	Selenium - Dissolved (mg/L)
SGS	SW-14	2020-06-28	-	0.00016	<0.000004	<0.0002	0.066	0.00003	0.0016	3.47	0.00124	<0.00001	0.00015	0.0004	0.068	-	1.11	-	0.00011
SGS	SW-14	2020-09-23	-	0.00015	<0.000004	0.0003	0.035	<0.00001	0.0018	3.62	0.0004	<0.00001	0.00017	0.0004	<0.007	-	1.26	-	0.00009
SGS	SW-14	2021-08-24	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	SW-14	2021-10-16	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	SW-14	2021-11-30	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.006	-	-	-	-
SGS	SW-15	2020-06-28	-	0.00037	<0.000004	<0.0002	0.277	0.00005	0.0018	3.2	0.0024	<0.00001	0.00034	0.0007	0.021	-	0.836	-	0.0001
SGS	SW-15	2020-09-29	-	0.00031	<0.000004	0.0008	0.127	0.00002	0.0034	5.73	0.0017	<0.00001	0.00074	0.0006	<0.003	-	1.27	-	0.00007
SGS	SW-15	2020-11-06	-	0.00038	0.00005	0.0014	0.202	0.0001	0.0026	5.02	0.00119	<0.00001	0.00126	0.0005	<0.003	-	1.67	-	0.00006
SGS	SW-15	2021-07-23	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.009	-	-	-	-
SGS	SW-15	2021-08-25	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	SW-15	2021-10-02	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.012	-	-	-	-
SGS	SW-15	2021-10-16	-	-	-	-	-	-	-	-	-	<0.00001	-	-	<0.003	-	-	-	-
SGS	SW-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-16	2021-10-16	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.007	-	-	-	-
SGS	SW-17	2021-11-30	-	-	-	-	-	-	-	-	-	<0.00001	-	-	0.008	-	-	-	-
SGS	SW-DUP-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Silicon - Dissolved (mg/L)	Silver - Dissolved (mg/L)	Sodium - Dissolved (mg/L)	Strontium - Dissolved (mg/L)	Sulfur - Dissolved (mg/L)	Tellurium - Dissolved (mg/L)	Thallium - Dissolved (mg/L)	Thorium - Dissolved (mg/L)	Tin - Dissolved (mg/L)	Titanium - Dissolved (mg/L)	Tungsten - Dissolved (mg/L)	Uranium - Dissolved (mg/L)	Vanadium - Dissolved (mg/L)	Yttrium - Dissolved (mg/L)	Zinc - Dissolved (mg/L)	Zirconium - Dissolved (mg/L)	MeHg-LL-T (ng/L)
SGS	SW-14	2020-06-28	0.46	<0.00005	3.66	0.0239	<1	-	<0.000005	-	<0.00006	0.00053	<0.00002	0.000032	0.00028	-	0.004	<0.002	-
SGS	SW-14	2020-09-23	0.19	<0.00005	3.96	0.0285	<1	-	<0.000005	-	<0.00006	0.00038	<0.00002	0.00003	0.00018	-	<0.002	<0.002	-
SGS	SW-14	2021-08-24	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-14	2021-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-14	2021-11-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-15	2020-06-28	2.29	<0.00005	1.57	0.0232	<1	-	<0.000005	-	<0.00006	0.00273	<0.00002	0.000163	0.00068	-	<0.002	<0.002	-
SGS	SW-15	2020-09-29	3.43	<0.00005	2.5	0.0401	<1	-	<0.000005	-	<0.00006	0.00142	0.00003	0.000158	0.00041	-	0.003	<0.002	-
SGS	SW-15	2020-11-06	3.52	<0.00005	2.73	0.0357	2	-	<0.000005	-	<0.00006	0.00482	0.00026	0.000173	0.00046	-	<0.002	<0.002	-
SGS	SW-15	2021-07-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-15	2021-08-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-15	2021-10-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-15	2021-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.566
SGS	SW-16	2021-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-17	2021-11-30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGS	SW-DUP-15	2021-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.563

Note: This is 2020 and 2021 data collected by Blue He

Data Source	Current Station Nam	Date and time	Hg-LL-T (ng/L)	Ra-226 (Bq/L)	O / G (mg/L)
SGS	SW-14	2020-06-28	-	-	-
SGS	SW-14	2020-09-23	-	-	-
SGS	SW-14	2021-08-24	-	-	-
SGS	SW-14	2021-10-16	-	-	-
SGS	SW-14	2021-11-30	-	-	-
SGS	SW-15	2020-06-28	-	-	-
SGS	SW-15	2020-09-29	-	-	-
SGS	SW-15	2020-11-06	-	-	-
SGS	SW-15	2021-07-23	-	-	-
SGS	SW-15	2021-08-25	-	-	-
SGS	SW-15	2021-10-02	-	-	-
SGS	SW-15	2021-10-16	-	-	-
SGS	SW-15	2021-10-19	2.69	-	-
SGS	SW-16	2021-10-16	-	-	-
SGS	SW-17	2021-11-30	-	-	-
SGS	SW-DUP-15	2021-10-19	2.68	-	-

Appendix E
Tabulated Groundwater Quality Data

Sample ID	Sample Date / Time	Temp-F (°C)	pH-F (s.u.)	Cond.	Acidity	Alkalinity, bicarbonate (as CaCO3) (mg/L)	Alkalinity, carbonate (as CaCO3) (mg/L)	Alkalinity, hydroxide (as CaCO3) (mg/L)	Alkalinity, phenolphthalein (as CaCO3) (mg/L)	Alk-T (mg/L)	Hardness-D (mg/L)	TDS (mg/L)	TSS (mg/L)	pH-L (s.u.)	NH_3-T (as N) (mg/L)	Cl- (mg/L)	NO_3-N (mg/L)	NO_3-N + NO_2-N (mg/L)	NO_2-N (mg/L)	P-T (by colour) (mg/L)	SO_4 (mg/L)	CN-Free (mg/L)	CN-T (mg/L)	CN-WAD (mg/L)	CN-SAD (mg/L)	Al-D (mg/L)	Sb-D (mg/L)	As-D (mg/L)	Ba-D (mg/L)	Be-D (mg/L)	Bi-D (mg/L)	B-D (mg/L)	Cd-D (mg/L)	Ca-D (mg/L)	Cs-D (mg/L)	Cr-D (mg/L)
BH22-01	2023-07-11	-	-	362	2.6	204	0.5	0.5	0.5	204	180	203	135	8.24	0.03	0.33	0.0025	0.00255	0.0005	0.0726	4.49	0.0005	0.0005	0.0005	-	0.0025	0.00005	0.00024	0.0239	0.00001	0.000025	0.018	0.0000025	50.5	0.000005	0.00005
BH22-101	2023-10-15	-	-	335	2.2	200	0.5	0.5	0.5	200	167	218	420	8.18	0.0305	0.3	0.0025	0.00255	0.0005	0.204	5.48	0.0005	0.0005	0.0005	-	0.002	0.00005	0.00024	0.0221	0.00001	0.000025	0.005	0.0000025	44.7	0.00001	0.00025
BH22-103	2023-07-06	-	-	719	14.9	437	0.5	0.5	0.5	437	359	417	1230	7.97	0.056	0.43	0.0025	0.00255	0.0005	1.05	8.21	0.0005	0.0005	0.0005	-	0.0401	0.00012	0.00012	0.00161	0.00001	0.000025	0.019	0.0000081	79.8	0.000005	0.00036
BH22-103	2023-10-06	-	-	718	5.9	403	0.5	0.5	0.5	403	355	361	78.3	7.61	0.013	0.27	0.0178	0.0178	0.0005	0.0604	5.05	0.0005	0.0005	0.0005	-	0.0017	0.00005	0.00067	0.0586	0.00001	0.000025	0.014	0.0000072	80.7	0.000005	0.00025
BH22-109	2023-05-24	-	-	183	6.3	92.1	0.5	0.5	0.5	92.1	85.6	97.8	4.2	7.36	0.005	0.24	0.0263	0.0263	0.0005	0.0083	2.22	0.0005	0.0005	0.0005	-	0.0081	0.00005	0.00027	0.013	0.00001	0.000025	0.005	0.0000062	23.3	0.000005	0.0003
BH22-109	2023-08-02	-	-	208	9	119	0.5	0.5	0.5	119	92.7	126	3.9	8.09	0.028	0.25	0.0346	0.0346	0.0005	0.0072	2.28	0.0005	0.0005	0.0005	-	0.0082	0.00005	0.00028	0.0134	0.00001	0.000025	0.005	0.0000025	23.8	0.000012	0.00031
BH22-109	2023-10-13	-	-	219	11.9	124	0.5	0.5	0.5	124	95	126	8.9	7.43	0.0025	0.24	0.0397	0.0397	0.0005	0.0174	2.67	0.0005	0.0005	0.0005	-	0.0069	0.00005	0.00027	0.0162	0.00001	0.000025	0.005	0.0000053	22.9	0.000011	0.00025
BH22-116	2023-06-27	-	-	371	1	198	0.5	0.5	0.5	198	99.8	223	52.4	7.82	0.017	0.69	0.0025	0.00255	0.0005	0.0816	12.8	0.0005	0.0005	0.0005	-	0.0158	0.00005	0.00387	0.0118	0.00001	0.000025	0.023	0.0000132	28.8	0.000011	0.00031
BH22-116	2023-08-06	-	-	348	1	164	0.5	0.5	0.5	164	114	245	18.6	7.89	0.076	0.74	0.0025	0.00255	0.0005	0.028	27.6	0.0005	0.0005	0.0005	-	0.0084	0.00005	0.00284	0.013	0.00001	0.000025	0.022	0.0000025	35	0.000025	0.00016
BH22-116	2023-10-03	-	-	285	2.9	138	0.5	0.5	0.5	138	105	173	4.5	8.21	0.0495	0.5	0.0203	0.0203	0.0005	0.0141	12.8	0.0005	0.0005	0.0005	-	0.0038	0.00005	0.00209	0.0112	0.00001	0.000025	0.014	0.0000025	33.1	0.00002	0.00025
BH22-118	2023-06-27	-	-	57.1	3.8	29.4	0.5	0.5	0.5	29.4	20.6	39.8	13	6.89	0.005	0.05	0.032	0.032	0.0005	0.0264	2.04	0.0005	0.0005	0.0005	-	0.0118	0.00005	0.00022	0.00299	0.00001	0.000025	0.005	0.0000075	5.4	0.000015	0.00012
BH22-118	2023-08-06	-	-	29.5	5.8	11.9	0.5	0.5	0.5	11.9	10.6	31.9	28.3	6.57	0.005	0.05	0.0206	0.0206	0.0005	0.0288	1.7	0.0005	0.0005	0.0005	-	0.0151	0.00005	0.00022	0.00224	0.000026	0.000025	0.005	0.0000053	2.63	0.000019	0.00012
BH22-118	2023-10-03	-	-	34.8	3.6	13.1	0.5	0.5	0.5	13.1	11.3	29.4	10.1	7.16	0.0219	0.05	0.0212	0.0212	0.0005	0.0145	2.12	0.0005	0.0005	0.0005	-	0.0159	0.00005	0.00023	0.00268	0.00003	0.000025	0.005	0.0000078	2.92	0.000025	0.00025
BH22-120	2023-06-27	-	-	105	3.1	49.4	0.5	0.5	0.5	49.4	41	71.8	4	6.91	0.015	0.15	0.118	0.118	0.0005	0.0064	5.23	0.0005	0.0005	0.0005	-	0.0053	0.00005	0.00014	0.00014	0.00001	0.000025	0.005	0.0000093	12.7	0.000062	0.00005
BH22-120	2023-08-06	-	-	106	7.3	45.1	0.5	0.5	j	45.1	45.3	73	2.4	6.89	0.005	0.17	0.126	0.1261	0.0005	0.0025	5.97	0.0005	0.0005	0.0005	-	0.0046	0.00005	0.00016	0.00803	0.00001	0.000025	0.005	0.0000101	14.1	0.000067	0.00005
BH22-120	2023-10-03	-	-	111	4.3	48.9	0.5	0.5	0.5	48.9	43	70.9	2.2	7.63	0.0025	0.17	0.121	0.121	0.0005	0.0036	5.74	0.0005	0.0005	0.0005	-	0.0037	0.00005	0.00014	0.00862	0.00001	0.000025	0.005	0.0000091	13.6	0.000068	0.00025
BH22-124	2023-07-06	-	-	333	7.6	184	0.5	0.5	0.5	184	162	250	211	7.9	0.067	0.7	0.0025	0.00255	0.0005	3.44	3.7	0.0005	0.0005	0.0005	-	0.121	0.00005	0.00177	0.0333	0.00001	0.000025	0.005	0.0000025	49.3	0.00003	0.0005
BH22-124	2023-08-30	-	-	326	7.1	172	0.5	0.5	0.5	172	150	255	25600	8.01	0.184	0.2	0.0025	0.00255	0.0005	12.4	3.12	0.0005	0.0005	0.0005	-	0.0131	0.00005	0.0013	0.031	0.00001	0.000025	0.005	0.0000025	45.4	0.000005	0.00025
BH22-124	2023-10-14	-	-	326	10.7	199	0.5	0.5	0.5	199	164	295	1420	7.31	0.0847	2.48	0.0381	0.0402	0.0021	13.8	1.61	0.0005	0.0005	0.0005	-	0.0391	0.00005	0.0014	0.0353	0.00001	0.000025	0.005	0.0000144	48.1	0.000005	0.00025
BH22-127	2023-07-06	-	-	226	1	113	6	0.5	3	113	73	147	26.1	8.6	0.035	0.35	0.0025	0.00255	0.0005	0.0728	2.63	0.0005	0.0005	0.0005	-	0.0218	0.00024	0.00024	0.00041	0.00001	0.000025	0.022	0.0000097	20	0.000005	0.00005
BH22-127	2023-10-09	-	-	220	1	106	22.6	0.5	11.3	129	73.2	140	300	9.02	0.0552	0.22	0.0025	0.00255	0.0005	0.457	0.4	0.0005	0.0005	0.0005	-	0.0296	0.00013	0.00021	0.0132	0.00001	0.000025	0.02	0.0000083	20	0.000005	0.00025
BH22-201	2023-08-21	-	-	346	2.9	206	0.5	0.5	0.5	206	173	221	929	8.2	0.05	0.29	0.0025	0.00255	0.0005	1.62	3.5	0.0005	0.0005	0.0005	-	0.0047	0.00005	0.00028	0.0247	0.00001	0.000025	0.014	0.0000025	49	0.00001	0.00025
BH22-202 DEEP	2023-08-29	-	-	256	1	126	4.8	0.5	2.4	131	116	156	19.1	8.32	0.017	0.11	0.0025	0.00255	0.0005	0.0152	9.02	0.0005	0.0005	0.0005	-	0.0039	0.00005	0.00082	0.0229	0.00001	0.000025	0.005	0.0000025	37.9	0.000005	0.00025
BH22-202 DEEP	2023-10-02	-	-	253	2.3	129	0.5	0.5	0.5	129	121	160	1.5	8.05	0.0025	0.11	0.0025	0.00255	0.0005	0.0085	7.58	0.0005	0.0005	0.0005	-	0.0044	0.00005	0.00074	0.0137	0.00001	0.000025	0.005	0.0000025	40.3	0.000005	0.00025
BH22-202 SHALLOW	2023-07-03	-	-	354	22	200	0.5	0.5	0.5	200	190	326	2780	7	0.464	0.3	0.0025	0.00255	0.0005	1.69	1.18	0.0005	0.0005	0.0005	-	0.0323	0.00005	0.00739	0.068	0.000095	0.000025	0.019	0.0000025	51.8	0.000005	0.0037
BH22-202 SHALLOW	2023-08-29	-	-	409	18.4	222	0.5	0.5	0.5	222	199	328	78.4	7.62	0.802	0.32	0.0025	0.00255	0.0005	0.143	0.15	0.0005	0.0005	0.0005	-	0.0216	0.00005	0.0061	0.0714	0.000066	0.000025	0.005	0.0000025	53	0.000005	0.00347
BH22-202 SHALLOW	2023-10-02	-	-	392	19	216	0.5	0.5	0.5	216	193	325	119	7.32	1.09	0.28	0.0025	0.00255	0.0005	16	0.15	0.0005	0.0005	0.0005	-	0.0191	0.00005	0.0047	0.0691	0.000057	0.000025	0.005	0.0000025	52.4	0.000005	0.00347
BH22-203	2023-07-03	-	-	314	1	169	0.5	0.5	0.5	169	161	190	13.5	8.14	0.141	0.34	0.0025	0.00255	0.0018	0.015	8.24	0.0005	0.0005	0.0005	-	0.0056	0.00005	0.00037	0.0114	0.00001	0.000025	0.019	0.0000025	47	0.000045	0.00016
BH22-203	2023-08-29	-	-	385	3.9	197	0.5	0.5	0.5	197	166	278	5.6	8.28	0.121	0.32	0.0025	0.00255	0.0005	0.0292	1.67	0.0005	0.0005	0.0005	-	0.0162	0.00005	0.00058	0.0133	0.00001	0.000025	0.005	0.0000025	49	0.000047	0.00025
BH22-203	2023-10-02	-	-	357	5.9	191	0.5	0.5	0.5	191	156	274	2.3	8	0.194	0.23	0.0025	0.00255	0.0005	0.0244	1.52	0.0005	0.0005	0.0005	-	0.011	0.00005	0.0004	0.0128	0.00001	0.000025	0.01	0.0000025	47.5	0.00005	0.00025
BH22-206	2023-07-03	-	-	354	9.5	202	0.5	0.5	0.5	202	182	297	5200	7.23	0.956	0.69	0.0025	0.00255	0.0005	4.37	5.33	0.0005	0.0005	0.0005	-	0.0875	0.00005	0.00168	0.0641	0.00001	0.000025	0.027	0.0000025	61.6	0.000031	0.00061
BH22-206	2023-10-03	-	-	424	4.1	238	2	0.5	1	240	182	283	58.4	8.3	0.935	0.48	0.0025	0.00255	0.0005	0.0964	0.36	0.0005	0.0005	0.0005	-	0.0051	0.00005	0.00106	0.0618	0.00001	0.000025	0.014	0.0000025	62.4	0.000016	0.00025
BH22-208	2023-07-08	-	-	122	1	58.1	0.5	0.5	0.5	58.1	40.2	100	135	7.84	0.031	0.27	0.0025	0.00255	0.0005	0.176	5.2	0.0005	0.0005	0.0005	-	0.0122	0.00016	0.00183	0.00946	0.000034	0.000025	0.025	0.0000068	11.4	0.000005	0.00005
BH22-208	2023-08-18	-	-	136	1	61.5	0.5	0.5	0.5	61.5	40.2	123	383	7.41	0.015	0.9	0.0025	0.00255	0.0005	0.129	6.3	0.0005	0.0005	0.0005	-	0.0072	0.00005	0.0012	0.00692	0.00001	0.000025	0.026	0.0000025	11.4	0.000005	0.00025
BH22-209	2023-07-08	-	-	234	4.7	123	0.5	0.5	0.5	123	105	147	2750	7.77	0.03	0.79	0.0025	0.00255	0.0005	0.343	4.58	0.0005	0.0005	0.0005	-	0.0158	0.00015	0.00038	0.00672	0.00001	0.000025	0.034	0.0000116	27.4	0.000005	0.00005
BH22-209	2023-08-15	-	-	239	2.2	122	0.5	0.5	0.5	122	101	138	376	7.9	0.031	0.38	0.0025	0.00255	0.0005	0.184	4.48	0.0005	0.0005	0.0005	-	0.0113	0.00016	0.00034	0.00736	0.00001	0.000025	0.033	0.0000115	26.2	0.000005	0.00025
BR-012	2021-08-21	5	8.17	264	1	-	-	-	-	150	103	191	23	8.17	0.1	0.5	0.03	0.03	0.015	-	4	-	0.005	-	-	0.017	0.00045	0.001	0.0749	0.0000035	0.000005	0.078	0.0000015	30.1	-	0.00035
BR-012	2021-11-29	12	8.09	245	1	-	-	-	-	132	128	123	1	8.09	0.05	0.5	0.03	0.03	0.015	-	4	-	0.005	-	-	0.006	0.00045	0.0016	0.114	0.0000035	0.000005	0.029	0.0000015	39.1	-	0.00026
BR-019	2021-08-21	5	8.1	243	1	-	-	-	-	139	123	186	1	8.1	0.05	0.5	0.03	0.03	0.015	-	3	-	0.005	-	-	0.002	0.00045	0.0031	0.0263	0.0000035	0.000005	0.029	0.000003	38.2	-	0.00027
BR-019	2021-11-29	12	8.06	240	1	-	-	-	-	131	142	129	1	8.06	0.05	0.5	0.03	0.03	0.015	-	3	-	0.005	-	-	0.002	0.00045	0.0017	0.0248	0.0000035	0.000005	0.015	0.0000015	44.5	-	0.00012
BR-042	2021-12-02	12	8.08	261	1	-	-	-	-	137	154	134	1	8.08	0.05	0.5	0.03	0.03	0.015	-	1	-	0.005	-	-	0.004	0.00045	0.0047	0.0472	0.0000035	0.000005	0.026	0.0000015	46.3	-	0.0002
BR-150	2021-11-27	9	7.97	665	1	-	-	-	-	229	283	443	11	7.97	0.05	13	0.03	0.03	0.015	-	6	-	0.005	-	-	0.002	0.00045	0.0006	3.58	0.0000035	0.000005	0.141	0.0000015	77.7	-	0.0002
BR-223	2021-11-27	9	8.04	778	1	-	-	-	-	325	369	549	7	8.04	0.05	99	0.1	0.1	0.015	-	36	-	0.005	-	-	0.004	0.00045	0.0007	0.806	0.0000035	0.000005	0.17	0.000007	94.6	-	0.00078
BR-228	2021-11-27	9	7.92	730	1	-	-	-	-	372	379	523	72	7.92	0.05	54	0.03	0.03	0.015	-	2	-	0.005	-	-	0.002	0.00045	0.0008	3.83	0.0000035	0.000005	0.118	0.0000015	102	-	0.00042
BR-381	2021-11-29	12	7.83	421	1	-	-	-	-	191	217	249	4	7.83	0.05	5	0.03	0.03	0.015	-	41	-	0.005	-	-	0.002	0.00045	0.0049	0.0475	0.0000035	0.000005	0.067	0.0000015	66.8	-	0.00029
BR-410	2021-11-29	12	7.48	611	1	-	-	-	-	337	350	360	21	7.48	0.05	0.5	0.03	0.03	0.015	-	22	-	0.005	-	-	0.002	0.00045	0.0021	0.569	0.0000035	0.000005	0.03	0.0000015	99.6	-	0.0002
D21SA012	2023-06-21	-	-	613	12.5	375	0.5	0.5	0.5	375	335	309	387	8.26	0.659	0.78	0.0025	0.0025	0.0005	0.633	0.58	0.0005	0.0005	0.0005	-	0.0064	0.00005	0.00054	0.0996	0.00001	0.000025	0.066	0.0000231	63.8	0.000005	0.00005
D21SA012	2023-08-22	-	-	545	-	313	10	0.5	5	323	281	299	84.4	8.43	-	1.08	0.0211	0.0211	0.0005	-	0.15	-	-	-	-	0.0024	0.00045	0.00091	0.0854	0.00001	0.000025	0.043	0.0000205	51.4	0.000005	0.00025
D21SA012	2023-10-18	-	-	569	329	5.6	0.5	2.8	334	278	8.32	0.109	0.62	0.0025	0.0025	0.0005	0.0725	0.15	0.0025	0.00043	0.00082	0.0813	0.00001	0.000025	-	0.048	0.0000144	53.3	0.00005	0.00001	0.00032	0.00081	5.09	0.000025	0.0132	35.2
D21SA012	2021-11-30	12	-	-	-	-	-	-	-	-	231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00045	0.0003	0.0695	0.0000035	0.000005	0.097	0.000036	52.9	-	0.00004
D21SA013B	2021-11-30	12	-	-	-	-	-	-	-	-	238	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0017	0.0011	0.0495	0.0000035	0.000005	0.049	0.000014	74.2	-	0.00035
D21SA016	2021-11-30	12	-	-	-	-	-	-	-	-	263	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0012	0.0006	0.069	0.0000035	0.000005	0.047	0.000027	69.3	-	0.00019
MW10-22 DEEP	2023-06-21	-	-	265	2.4	133	2	0.5	1	133	132	294	645	8.3	0.016	1.71	0.0025	0.00255	0.0005	0.103	12	0.0005	0.0005	0.0005	-	0.0042	0.00005	0.00195	0.0296	0.00001	0.000025	0.012	0.0000025	40.9	0.000005	0.00005
MW10-22 DEEP	2023-08-04	-	-	266	2.1	130	0.5	0.5	0.5	130	126	152	5.9	8.19	0.012	1.87	0.0025	0.00255	0.0005	0.0084	12.6	0.0005	0.0005	0.0005	-	0.0039	0.00005	0.00197	0.0295	0.00001	0.000025	0.005	0.0000025	37.6	0.000005	0.00005
MW10-22 DEEP	2023-10-06	-	-	274	1	131	0.5	0.5	0.5	131	127	153	300	8.03	0.0025	1.58	0.0025	0.00255	0.0005	0.216	11.5	0.0005	0.0005	0.0005	-	0.0032	0.00005	0.00164	0.0284	0.00001	0.000025	0.005	0.0000025	38.6	0.000005	0.00025
MW10-22 INTERMEDIATE	2023-06-21	-	-	654	18.9	380	0.5	0.5	0.5	380	362	371	40.8	8.12	0.042	0.23	0.0025	0.00255	0.0005	0.0399	12.2	0.0005	0.0005	0.0005	-	0.0019	0.00005	0.0019	0.115	0.00001	0.000025	0.017	0.0000025	90.3	0.000005	0.00005
MW10-22 INTERMEDIATE	2023-08-04	-	-	415	4.4	218	0.5	0.5	0.5	218	190	242	32.2	8.06	0.039	0.35	0.098	0.0114	0.0016	0.0387	11.5	0.0005	0.0005	0.0005	-	0.0048	0.00005	0.00111	0.0617	0.00001	0.000025	0.012	0.0000025	50.7	0.000005	0.00005
MW10-22 INTERMEDIATE	2023-10-06	-	-	380	2.6	194	0.5	0.5	0.5	194	182	204	79.9	7.83	0.024	0.42	0.009	0.0112	0.0022	0.0743	11	0.0005	0.0005	0.0005	-	0.0121	0.00005	0.00085	0.0479	0.00001	0.000025	0.012	0.0000025	51.8	0.000005	0.00025
MW11-22 DEEP	2023-06-27	-	-	713	3.8	392	0.5	0.5	0.5	392	336	372	2.5	7.77	0.005	3.37	0.005	0.0102	0.001	0.004	21.7	0.0005	0.0005	0.0005	-	0.0016	0.00005	0.00024	0.00024	0.00001	0.000025	0.014	0.0000115	72.5	0.000629	0.00005
MW11-22 DEEP	2023-08-05	-	-	711	12.3	384	0.5	0.5	0.5	384	368	388	3	7.79	0.005	3.93	0.0069	0.0069	0.0005	0.001	24.4	0.0005	0.0005	0.0005	-	0.0013	0.00005	0.00023	0.0752	0.00001	0.000025	0.015	0.0000148	79.8	0.000615	0.00005
MW11-22 DEEP	2023-10-09	-	-	695	15.2	393	0.5	0.5	0.5	393	354	378	16.7	7.67	0.005	1.89	0.0069	0.0069	0.0005	0.0218	20.6	0.0005	0.0005	0.0005	-	0.0005	0.00005	0.00029	0.0702	0.00001	0.000025	0.015	0.0000124	76.3	0.000538	0.00025
MW11-22 SHALLOW	2023-06-27	-	-	413	5.6	221	0.5	0.5	0.5	221	337	385	87.6	7.44	0.005	1.67	0.01433	0.0143	0.001	0.0741	17.7	0.0005	0.0005	0.0005	-	0.0019	0.00005	0.00032	0.00032	0.00001	0.000025	0.012	0.0000124	73.1	0.000023	0.00022
MW11-22 SHALLOW	2023-08-05	-	-	710	13.4	391	0.5	0.5	0.5	391	362	388	49.1	7.82	0.005	2.1	0.0187	0.0187	0.0005	0.0499	20.6	0.0005	0.0005	0.0005	-	0.0011	0.00005	0.0004	0.067	0.00001	0.000025	0.013	0.0000127	77.5	0.000026	0.00025
MW11-22 SHALLOW	2023-10-09	-	-	720	2	421	0.5	0.5	0.5	421	358	401	235	7.68	0.0025	0.39	0.0441	0.0441	0.0005	0.127	10.5	0.0005	0.0005	0.0005	-	0.0124	0.00016	0.00042	0.067	0.00001	0.000025	0.022	0.0000086	78.2	0.00002	0.00025
MW1-22 DEEP	2023-06-22	-	-	259	6	136	0.5	0.5	0.5	136	123	158	6.2	7.97	0.028	0.22	0.0116	0.0134	0.0018	0.0117	4.97	0.0023	0.0005	0.0005	-	0.0051	0.00005	0.00052	0.0204	0.00001	0.000025	0.01	0.0000025	33.7	0.000005	0.00005
MW1-22 DEEP	2023-08-05	-	-	263	4.2	139	0.5	0.5	0.5	139	137	166	9.3	7.71	0.023	0.17	0.0025	0.00255	0.0005	0.0112	5.12	0.0005	0.0005	0.0005	-	0.0026	0.00005	0.00055	0.0209	0.00001	0.000025	0.01	0.0000025	37.9	0.000005	0.00005
MW1-22 DEEP	2023-10-06	-	-	252	2.6	127	0.5	0.5	0.5	127	114	137	24.3	7.44	0.0167	0.17	0.0025	0.00255	0.0005	0.0226	4.79	0.0005	0.0005	0.0005	-	0.0034	0.00005	0.00057	0.0191	0.00001	0.000025	0.011	0.0000025	31.8	0.000005	0.00025
MW1-22 SHALLOW	2023-06-23	-	-	438	6.1	249	0.5	0.5	0.5	249	240	245	10	8.27	0.052	0.18	0.0376	0.0376	0.0005	0.0281	4.07	0.0005	0.0005	0.0005	-	0.0044	0.00014	0.00058	0.0227	0.00001	0.000025	0.018	0.0000147	57	0.000005	0.00051
MW1-22 SHALLOW	2023-08-06	-	-	443	5.5	245	0.5	0.5	0.5	245	223	241	59	7.97	0.014	0.2	0.0528	0.0528	0.0005	0.0411	4.7	0.0005	0.0005	0.0005	-	0.0028	0.00005	0.00051	0.0212	0.00001	0.000025	0.005	0.0000063	53.9	0.000005	0.00045
MW1-22 SHALLOW	2023-10-06	-	-	462	3.3	242	0.5	0.5	0.5	242	224	227	17.6	7.83	0.0025	0.16	0.0426	0.0426	0.0005	0.0333	4.4	0.0005	0.0005	0.0005	-	0.002	0.00005	0.00048	0.0216	0.00001	0.000025	0.01	0.0000076	53.5	0.000005	0.00059
MW12-22 DEEP	2023-05-27	-	-	333	1	165	4.6	0.5	2.3	170	140	182	9.9	8.33	0.055	1.08	0.0262	0.0276	0.0014	0.0215	13.5	0.0005	0.0005	0.0005	-	0.0037	0.00005	0.00156	0.0295	0.00001	0.000025	0.005	0.0000025	37.3	0.000005	0.00005
MW12-22 DEEP	2023-08-01	-	-	306	1	182	4.6	0.5	2.3	187	141	179	2.3	8.39	0.027	0.36	0.052	0.0532	0.0012	0.0107	6.95	0.0005	0.0005	0.0005	-	0.003	0.00005	0.00128	0.0293	0.00001	0.000025

Sample ID	Sample Date / Time	Co-D (mg/L)	Cu-D (mg/L)	Fe-D (mg/L)	Pb-D (mg/L)	Li-D (mg/L)	Mg-D (mg/L)	Mn-D (mg/L)	Hg-D (mg/L)	Mo-D (mg/L)	Ni-D (mg/L)	P-D (mg/L)	K-D (mg/L)	Rb-D (mg/L)	Se-D (mg/L)	Si-D (mg/L)	Ag-D (mg/L)	Na-D (mg/L)	Sr-D (mg/L)	S-D (mg/L)	Te-D (mg/L)	Tl-D (mg/L)	Th-D (mg/L)	Sn-D (mg/L)	Ti-D (mg/L)	W-D (mg/L)	(mg/L)	V-D (mg/L)	Zn-D (mg/L)	Zr-D (mg/L)	MeHg (ng/L)	Low Level Hg (ng/L)
BH22-01	2023-07-11	0.00005	0.0001	0.786	0.000025	0.0088	13	0.208	0.0000025	0.00318	0.00025	0.015	3.54	0.00157	0.000025	8.64	0.000005	7.06	0.102	1.82	0.0001	0.000005	0.0001	0.00005	0.00015	0.0016	0.000208	0.00025	0.0005	0.00015	-	-
BH22-101	2023-10-15	0.00005	0.0001	0.862	0.000025	0.0037	13.4	0.198	0.0000025	0.00274	0.00025	0.025	3.76	0.00147	0.000025	8.89	0.000005	6.97	0.105	2.06	0.0001	0.000005	0.00005	0.00005	0.00015	0.00133	0.000235	0.00025	0.0005	0.00015	-	-
BH22-103	2023-07-06	0.00251	0.00034	1.02	0.000025	0.0421	38.8	0.309	0.0000025	0.00529	0.000529	0.015	4.54	0.00121	0.000078	7.46	0.000005	31.9	0.233	4.4	0.0001	0.000005	0.00005	0.0002	0.00249	0.00148	0.0129	0.001	0.0013	0.00033	-	-
BH22-103	2023-10-06	0.00186	0.00021	0.995	0.000025	0.0407	37.3	0.192	0.0000025	0.00801	0.00252	0.025	3.9	0.00125	0.000025	8.12	0.000005	17.1	0.214	2.2	0.0001	0.000005	0.00005	0.00005	0.00015	0.00038	0.00538	0.00025	0.0012	0.00015	-	-
BH22-109	2023-05-24	0.00024	0.00086	0.092	0.000025	0.0005	6.65	0.585	0.0000025	0.00257	0.00055	0.015	1.08	0.00289	0.000146	6.8	0.000005	6.93	0.0631	0.62	0.0001	0.000005	0.00005	0.00005	0.00058	0.00014	0.000269	0.00025	0.0013	0.00015	-	-
BH22-109	2023-08-02	0.00013	0.00117	0.043	0.000025	0.0005	8.09	0.0174	0.0000025	0.00212	0.00025	0.015	1.18	0.00324	0.000149	6.95	0.000005	8.15	0.0728	1.08	0.0001	0.000005	0.00005	0.00005	0.0004	0.00017	0.000242	0.00025	0.0005	0.00015	-	-
BH22-109	2023-10-13	0.00013	0.00077	0.055	0.000025	0.0005	9.19	0.0192	0.0000025	0.00139	0.00051	0.025	1.41	0.00379	0.000181	6.88	0.000005	8.06	0.0883	0.95	0.0001	0.000005	0.00005	0.00005	0.00015	0.00014	0.00035	0.00025	0.0005	0.00015	-	-
BH22-116	2023-06-27	0.00123	0.00029	0.348	0.000052	0.0019	6.76	0.444	0.0000025	0.0183	0.00114	0.015	2.78	0.00142	0.000764	7.28	0.000005	41.3	0.0573	5.09	0.0001	0.000005	0.00005	0.00005	0.00139	0.00055	0.00348	0.00303	0.0102	0.00034	-	-
BH22-116	2023-08-06	0.00089	0.0001	0.427	0.000025	0.002	6.55	0.495	0.0000025	0.0129	0.00059	0.015	2.78	0.00219	0.000186	8.48	0.000005	33	0.07	9.43	0.0001	0.000005	0.00005	0.00005	0.0005	0.0004	0.00336	0.00134	0.0005	0.00015	-	-
BH22-116	2023-10-03	0.00046	0.0001	0.187	0.000025	0.0019	5.42	0.3	0.0000025	0.00725	0.00025	0.025	2.31	0.00179	0.000378	7.82	0.000005	15.4	0.0561	4.08	0.0001	0.000005	0.00005	0.00005	0.00015	0.0004	0.00241	0.00073	0.0005	0.00015	-	-
BH22-118	2023-06-27	0.00018	0.00184	0.005	0.000025	0.0005	1.73	0.0043	0.0000025	0.0085	0.00025	0.015	0.488	0.00211	0.00012	5.7	0.000005	2.22	0.013	0.8	0.0001	0.000005	0.00005	0.00005	0.00056	0.00299	0.000295	0.00025	0.0026	0.00015	-	-
BH22-118	2023-08-06	0.00005	0.00147	0.005	0.000025	0.001	0.97	0.00206	0.0000025	0.000622	0.00025	0.015	0.385	0.0016	0.00008	5.48	0.000005	1.3	0.00625	0.53	0.0001	0.000005	0.00005	0.00005	0.00041	0.00054	0.000186	0.00025	0.0015	0.00015	-	-
BH22-118	2023-10-03	0.0001	0.00205	0.005	0.000025	0.0012	0.976	0.00281	0.0000025	0.000706	0.00025	0.025	0.412	0.00187	0.000098	5.64	0.000005	1.54	0.0103	0.52	0.0001	0.000005	0.00005	0.00005	0.00015	0.00038	0.000277	0.00025	0.0013	0.00015	-	-
BH22-120	2023-06-27	0.00075	0.00304	0.005	0.000025	0.0025	2.27	0.0058	0.0000025	0.00102	0.00214	0.015	1.65	0.00392	0.000256	7.17	0.000005	2.79	0.0423	2.11	0.0001	0.000013	0.00005	0.00005	0.00015	0.0002	0.00149	0.00025	0.003	0.00015	-	-
BH22-120	2023-08-06	0.00079	0.00336	0.005	0.000025	0.0033	2.46	0.00542	0.0000025	0.00112	0.00211	0.015	1.63	0.00385	0.000225	7.7	0.000005	2.77	0.0445	2.08	0.0001	0.000015	0.00005	0.00005	0.00015	0.00019	0.00136	0.00025	0.0029	0.00015	-	-
BH22-120	2023-10-03	0.0007	0.00325	0.005	0.000025	0.003	2.19	0.00525	0.0000025	0.00108	0.00212	0.025	1.65	0.00392	0.000303	7.07	0.000005	2.76	0.043	1.68	0.0001	0.000014	0.00005	0.00005	0.00015	0.00029	0.00141	0.00025	0.0026	0.00015	-	-
BH22-124	2023-07-06	0.00074	0.00068	0.308	0.00009	0.0059	9.45	0.5	0.0000025	0.000962	0.00237	0.041	3.12	0.00228	0.000025	10.4	0.000005	4.74	0.0883	1.21	0.0001	0.000005	0.00005	0.00005	0.0109	0.00225	0.00149	0.00117	0.0034	0.00042	-	-
BH22-124	2023-08-30	0.00048	0.00049	0.306	0.000025	0.0056	8.8	0.403	0.0000025	0.00076	0.00149	0.025	3.12	0.00218	0.000054	11.1	0.000005	3.79	0.0766	1.25	0.0001	0.000005	0.00005	0.00005	0.00098	0.0017	0.00124	0.00051	0.0005	0.00015	-	-
BH22-124	2023-10-14	0.00075	0.00163	0.224	0.000025	0.0021	10.8	0.397	0.0000025	0.000634	0.0024	0.025	2.57	0.00203	0.000122	8.36	0.000005	5.35	0.0878	0.72	0.0001	0.000005	0.00011	0.00005	0.00186	0.00144	0.00163	0.00136	0.0005	0.00058	-	-
BH22-127	2023-07-06	0.00005	0.0001	0.026	0.000025	0.0056	5.61	0.0818	0.0000025	0.00025	0.00025	0.015	2.87	0.00071	0.000025	3.99	0.000005	20.8	0.0581	0.25	0.0001	0.000005	0.00005	0.00005	0.00048	0.082	0.000057	0.00025	0.001	0.00015	-	-
BH22-127	2023-10-09	0.00005	0.0001	0.02	0.000025	0.0061	5.66	0.124	0.0000025	0.0361	0.00025	0.025	2.97	0.0006	0.000025	3.74	0.000005	19.9	0.0631	0.25	0.0001	0.000005	0.00005	0.00005	0.00015	0.0667	0.00004	0.00025	0.0005	0.00015	-	-
BH22-201	2023-08-21	0.00005	0.0001	0.584	0.000025	0.0046	12.3	0.246	0.0000025	0.0032	0.00025	0.025	3.7	0.00167	0.000025	9.79	0.000005	6.93	0.1	1.99	0.0001	0.000005	0.00005	0.00005	0.00015	0.00197	0.000237	0.00025	0.0005	0.00015	-	-
BH22-202 DEEP	2023-08-29	0.00013	0.00042	0.571	0.000025	0.0022	5.2	0.0403	0.0000025	0.00352	0.00025	0.025	2.05	0.00177	0.000025	5.49	0.000005	3.39	0.0434	3.16	0.0001	0.000005	0.00005	0.00011	0.00015	0.0148	0.000249	0.00025	0.0012	0.00015	-	-
BH22-202 DEEP	2023-10-02	0.00005	0.0001	1.18	0.000025	0.0016	4.94	0.0448	0.0000025	0.00213	0.00025	0.025	1.86	0.00155	0.000025	5.22	0.000005	2.62	0.0368	2.77	0.0001	0.000005	0.00005	0.00005	0.00015	0.00282	0.000241	0.00053	0.0005	0.00015	-	-
BH22-202 SHALLOW	2023-07-03	0.0007	0.0001	13.3	0.000025	0.0047	14.7	1.04	0.0000025	0.00158	0.00149	0.066	1.1	0.00133	0.000099	17.4	0.000015	8.27	0.0968	0.55	0.0001	0.000005	0.00044	0.00035	0.012	0.00282	0.000484	0.0117	0.0023	0.006	-	-
BH22-202 SHALLOW	2023-08-29	0.00132	0.0001	15.7	0.000025	0.0048	16.3	1.59	0.0000025	0.00118	0.00123	0.086 0.086	0.918	0.00103	0.00008	18.3	0.000012	7.94	0.104	0.25	0.0001	0.000005	0.0003	0.00031	0.0102	0.00032	0.000188	0.00797	0.0005	0.00584	-	-
BH22-202 SHALLOW	2023-10-02	0.00124	0.00028	14.7	0.000025	0.004	15.2	1.44	0.0000025	0.000924	0.00098	0.070 0.070	0.887	0.0011	0.00008	16.7	0.000005	6.9	0.103	0.25	0.0001	0.000005	0.00031	0.00011	0.0101	0.00011	0.000151	0.00831	0.0013	0.00546	-	-
BH22-203	2023-07-03	0.00005	0.0001	0.544	0.000025	0.0054	10.6	0.249	0.0000025	0.0068	0.00025	0.015	2.32	0.00105	0.000101	8.49	0.000005	10.1	0.0919	3.32	0.0001	0.000005	0.00005	0.00005	0.00036	0.0065	0.000327	0.00062	0.0012	0.00015	-	-
BH22-203	2023-08-29	0.00005	0.0001	0.994	0.000025	0.0074	10.7	0.313	0.0000025	0.00273	0.00025	0.025	2.54	0.00127	0.000025	9.92	0.000005	19.2	0.0837	0.84	0.0001	0.000005	0.00005	0.00012	0.00294	0.00042	0.000324	0.0032	0.0005	0.00015	-	-
BH22-203	2023-10-02	0.00005	0.0001	1.41	0.000025	0.0053	9.2	0.396	0.0000025	0.00174	0.00025	0.025	2.42	0.00131	0.000025	9.51	0.000005	14.3	0.0794	0.69	0.0001	0.000005	0.00005	0.00005	0.00213	0.00031	0.000174	0.00206	0.0005	0.00015	-	-
BH22-206	2023-07-03	0.00037	0.0001	2.46	0.00085	0.0053	6.81	0.713	0.0000025	0.0159	0.00054	0.076	1.9	0.00162	0.000175	12.1	0.000005	16.1	0.107	2.12	0.0001	0.000005	0.00016	0.00005	0.0092	0.00139	0.00144	0.0021	0.0005	0.00133	-	-
BH22-206	2023-10-03	0.00021	0.0001	2.48	0.000025	0.0063	6.34	0.739	0.0000025	0.0111	0.00025	0.067 0.067	1.79	0.00127	0.000025	12.2	0.000005	14.4	0.106	0.25	0.0001	0.000005	0.00005	0.00005	0.00262	0.00158	0.000382	0.00176	0.0005	0.00118	-	-
BH22-208	2023-07-08	0.00028	0.00085	0.045	0.000179	0.0031	2.86	0.223	0.0000025	0.0149	0.00222	0.015	1.83	0.00111	0.000093	0.000005	0.000005	10	0.0535	2.09	0.0001	0.000005	0.00005	0.00017	0.00037	0.0099	0.0168	0.00264	0.0012	0.0035	-	-
BH22-208	2023-08-18	0.00019	0.00047	0.079	0.000081	0.0029	2.84	0.2	0.0000025	0.0135	0.00095	0.025	1.76	0.00097	0.000081	5.5	0.000005	7.84	0.0507	2.37	0.0001	0.000005	0.00005	0.00005	0.00015	0.00527	0.0149	0.00112	0.0005	0.00015	-	-
BH22-209	2023-07-08	0.0004	0.0136	0.039	0.00025	0.0079	8.93	0.197	0.0000025	0.0217	0.00205	0.015	1.27	0.00126	0.000112	0.000023	0.000023	8.7	0.118	2.04	0.0001	0.000005	0.00005	0.00005	0.00015	1.27	0.00888	0.00025	0.0036	0.00015	-	-
BH22-209	2023-08-15	0.00053	0.034	0.014	0.000025	0.0077	8.63	0.262	0.0000025	0.0227	0.00375	0.025	1.4	0.00133	0.000025	6.26	0.000218	8.4	0.116	1.62	0.0001	0.000005	0.00005	0.00015	0.00015	1.8	0.0073	0.00025	0.004	0.00015	-	-
BR-012	2021-08-21	0.00001	0.0002	0.111	0.000045	0.0052	6.68	0.0415	0.000005	0.00392	0.0002	0.03	4.57	-	0.00002	4.76	0.000025	20.7	-	1	-	0.0000025	-	0.00003	0.00022	0.317	0.00181	0.00058	0.011	-	-	-
BR-012	2021-11-29	0.000014	0.0001	0.286	0.000045	0.0054	7.28	0.0545	0.000005	0.00075	0.0001	0.016	3.09	-	0.00002	7.02	0.000025	6.09	-	3	-	0.0000025	-	0.00003	0.00029	0.0195	0.000773	0.00016	0.001	0.001	-	-
BR-019	2021-08-21	0.000027	0.0001	0.518	0.000045	0.0036	6.64	0.0673	0.000005	0.00053	0.00005	0.0015	2.39	-	0.00002	5.85	0.000025	2.76	-	0.5	-	0.0000025	-	0.00003	0.00015	0.00802	0.000812	0.00057	0.014	-	-	-
BR-019	2021-11-29	0.000023	0.0002	0.203	0.000045	0.0047	7.39	0.0426	0.000005	0.00044	0.00005	0.011	2.61	-	0.00016	7.63	0.000025	2.85	-	2	-	0.0000025	-	0.00003	0.000025	0.00326	0.000661	0.00034	0.001	0.001	-	-
BR-042	2021-12-02	0.000514	0.0001	0.689	0.000045	0.0059	9.37	0.481	0.000005	0.00099	0.0028	0.015	2.8	-	0.00002	7.91	0.000025	3.39	-	2	-	0.0000025	-	0.00003	0.00008	0.00732	0.000861	0.0006	0.001	0.001	-	-
BR-150	2021-11-27	0.00006	0.0001	0.392	0.000045	0.0145	21.6	0.474	0.000005	0.0115	0.0005	0.011	6.65	-	0.00007	4.49	0.000025	41.2	-	28	-	0.0000025	-	0.00023	0.00054	0.12	0.000835	0.00013	0.003	-	-	-
BR-223	2021-11-27	0.000092	0.0009	0.666	0.000045	0.0293	32.4	0.188	0.000005	0.00076	0.0012	0.021	8.02	-	0.00052	6.02	0.000025	60.6	-	106	-	0.0000025	-	0.00014	0.00701	0.102	0.00178	0.0006	0.003	-	-	-
BR-228	2021-11-27	0.000178	0.0002	4.36	0.000045	0.0227	29.9	4.14	0.000005	0.0241	0.0011	0.029	9.8	-	0.00008	8.91	0.000025	46.5	-	2	-	0.0000025	-	0.00011	0.00066	0.166	0.000521	0.00041	0.003	-	-	-
BR-381	2021-11-29	0.00001	0.0001	0.34	0.000045	0.007	12.1	0.134	0.000005	0.00105	0.00005	0.021	3.78	-	0.00006	7.88	0.000025	14.4	-	16	-	0.0000025	-	0.00003	0.000025	0.0184	0.000518	0.0001	0.001	0.001	-	-
BR-410	2021-11-29	0.000157	0.0003	1.62	0.000045	0.0141	24.5	0.201	0.000005	0.00184	0.0005	0.007	6.27	-	0.00002	8.27	0.000025	10.7	-	7	-	0.0000025	-	0.00003	0.00008	0.00726	0.00288	0.00015	0.001	0.001	-	-
D21SA012	2023-06-21	0.00018	0.00528	1.49	0.000025	0.013	42.6	0.331	0.0000025	0.0685	0.00164	0.015	3.31	0.00103	0.000113	1.88	0.000005	17	0.186	0.025	0.0001	0.000005	0.00005	0.00015	0.00015	0.00005	0.00023	0.00025	0.0025	0.00015	-	-
D21SA012	2023-08-22	0.00036	0.00073	6.38	0.000025	0.0089	37.1	0.322	-	0.082	0.00389	0.025	3.26	0.00106	0.000025	2.13	0.000005	16.4	0.144	0.025	0.0001	0.000005	0.00005	0.00012	0.00015	0.0002	0.000248	0.00025	0.0131	0.00015	-	-
D21SA012	2023-10-18	0.28	0.0000025	0.0563	0.00216	0.133 0.133	3.66	0.00082	0.0000025	1.84	0.00025	16.6	0.136	0.25	0.0001	0.000005	0.000005	0.00014	0.00015	0.00005	0.0002	0.000005	0.0021	0.00015	-	-	-	-	-	-	-	-
D21SA012	2021-11-30	0.00014	0.0009	0.0035	0.000045	0.0141	24	0.347	-	0.195	0.0034	0.015	2.98	-	0.00013	2.02	0.000025	31.3	-	2	-	0.000011	-	0.00032	0.00009	0.00002	0.00105	0.00024	0.001	0.001	-	-
D21SA013B	2021-11-30	0.000168	0.0035	0.0035	0.00018	0.0094	12.8	0.0383	-	0.0159	0.0027	0.021	3.26	-	0.00034	8.78	0.000025	19.3	-	8	-	0.000008	-	0.00051	0.00028	0.00014	0.00824	0.00299	0.002	0.001	-	-
D21SA016	2021-11-30	0.000155	0.0056	0.0035	0.000045	0.0169	21.9	0.11	-	0.0057	0.0017	0.015	1.42	-	0.00041	8.83	0.000025	10.7	-	5	-	0.000011	-	0.00052	0.00018	0.00016	0.00412	0.0017	0.001	0.001	-	-
MW10-22 DEEP	2023-06-21	0.00005	0.0001	0.224	0.000025	0.0068	7.17	0.0921	0.0000025	0.00215	0.00025	0.015	3.51	0.00259	0.000025	5.73	0.000005	3.04	0.0624	4.12	0.0001	0.000005	0.00005	0.00005	0.00015	0.00016	0.00227	0.00025	0.0005	0.00015	-	-
MW10-22 DEEP	2023-08-04	0.00005	0.0001	0.217	0.000025	0.0061	7.72	0.0575	0.0000025	0.00218	0.00025	0.015	3.54	0.00259	0.000025	8.13	0.000005	3.14	0.0613	4.53	0.0001	0.000005	0.00005	0.00005	0.00015	0.00014	0.00242	0.00025	0.0005	0.00015	-	-
MW10-22 DEEP	2023-10-06	0.00005	0.0001	0.194	0.000025	0.0055	7.37	0.0614	0.0000025	0.00202	0.00025	0.025	3.64	0.0024	0.000025	5.6	0.000005	2.99	0.0619	3.6	0.0001	0.000005	0.00005	0.00005	0.00015	0.00016	0.00208	0.00025	0.0005	0.00015	-	-
MW10-22 INTERMEDIATE	2023-06-21	0.0007	0.0001	1.03	0.000025	0.0325	33.2	0.602	0.0000025	0.00326	0.0009	0.015	5.11	0.00354	0.000025	9.54	0.000005	13.1	0.216	4.5	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.00127	0.00025	0.003	0.00015	-	-
MW10-22 INTERMEDIATE	2023-08-04	0.00018	0.00026	0.359	0.000025	0.0147	15.5	0.228	0.0000025	0.00288	0.00025	0.015	3.71	0.00268	0.000025	6.32	0.000005	8.64	0.11	4.1	0.0001	0.000005	0.00005	0.00005	0.00015	0.00014	0.000582	0.00025	0.0005	0.00015	-	-
MW10-22 INTERMEDIATE	2023-10-06	0.0001	0.0001	0.302	0.000025	0.0119	12.7	0.169	0.0000025	0.00308	0.00025	0.025	3.88	0.00243	0.000025	8.01	0.000005	7.06	0.0948	3.91	0.0001	0.000005	0.00005	0.00005	0.00096	0.00017	0.000282	0.00025	0.0005	0.00015	-	-
MW11-22 DEEP	2023-06-27	0.00022	0.0005	0.029	0.000025	0.0368	37.7	0.0113	0.0000025	0.01	0.00425	0.015	7.76	0.00469	0.000996	6.3	0.000005	14.8	0.225	8.61	0.0001	0.000012	0.00005	0.00005	0.00015	0.00013	0.0124	0.00025	0.0025	0.00015	-	-
MW11-22 DEEP	2023-08-05	0.0001	0.00061	0.033	0.000025	0.0346	41.1	0.00584	0.0000025	0.00967	0.00412	0.015	7.84	0.00438	0.00114	7.11	0.000005	15	0.226	8.86	0.0001	0.000005	0.00005	0.00005	0.00015	0.00014	0.012	0.00025	0.0014	0.00015	-	-
MW11-22 DEEP	2023-10-09	0.00042	0.00044	0.079	0.000025	0.0388	39.6	0.0309	0.0000025	0.0101	0.00402	0.025	8.4	0.0042	0.000453	7.06	0.000005	18.2	0.243	7.81	0.0001	0.000005	0.00005	0.00005	0.00015	0.00015	0.0126	0.00025	0.0016	0.00015	-	-
MW11-22 SHALLOW	2023-06-27	0.00015	0.00048	0.005	0.000025	0.0358	37.6	0.0103	0.0000025	0.00799	0.00257	0.015	5.95	0.00302	0.000948	6.5	0.000005	14.9	0.223	7.33	0.0001	0.000015	0.00005	0.00005	0.00015	0.00005	0.0119	0.00025	0.0013	0.00015	-	-
MW11-22 SHALLOW	2023-08-05	0.00013	0.0005	0.02	0.000025	0.0375	41	0.0168	0.0000025	0.00753	0.00234	0.015	6.35	0.0029	0.00114	0.053	0.000005	15.3	0.232	7.16	0.0001	0.000014	0.00005	0.00005	0.00015	0.00005	0.0124	0.00025	0.0005	0.00015	-	-
MW11-22 SHALLOW	2023-10-09	0.00012	0.00062	0.042	0.000025	0.0487	39.6	0.0216	0.0000025	0.00662	0.00128	0.025	4.5	0.00211	0.000552	7.68	0.000005	24.7	0.26	4.24	0.0001	0.00001	0.00005	0.00005	0.00126	0.00005	0.0106	0.00071	0.0015	0.00015	-	-
MW1-22 DEEP	2023-06-22	0.00089	0.0001	2.06	0.000025	0.0056	9.4	0.16	0.0000025	0.00111	0.00025	0.015	2.41	0.00219	0.000025	9.34	0.000005	3.85	0.0729	1.86	0.0001	0.000005	0.00005	0.00005	0.00015	0.00032	0.00007	0.00025	0.0032	0.00015	-	-
MW1-22 DEEP	2023-08-05	0.00109	0.0001	2.27	0.000025	0.0044	10.2	0.164	0.0000025	0.00118	0.00025	0.015	2.35	0.00227	0.000025	7	0.000005	3.93	0.0742	1.77	0.0001	0.000005	0.00005	0.00005	0.00015	0.00033	0.000078	0.00025	0.0005	0.00015	-	-
MW1-22 DEEP	2023-10-06	0.00123	0.0001	2.15	0.000025	0.004	8.48	0.172	0.0000025	0.000975	0.00094	0.025	2.5	0.00235	0.000025	9.72	0.000005	3.8	0.0697	1.94	0.0001	0.000005	0.00005	0.00005	0.00015	0.00034	0.000068	0.00025	0.001	0.00015	-	-
MW1-22 SHALLOW	2023-06-23	0.00005	0.00042	0.005	0.000025	0.0109	23.6	0	0.0000025	0.000627	0.00025	0.015	1.04	0.00038	0.000096	11.5	0.000005	8.13	0.0631	1.84	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.0006	0.00297	0.0043	0.00015	-	-
MW1-22 SHALLOW	2023-08-06	0.00005	0.00041	0.005	0.000025	0.0119	21.4	0.0122	0.0000025	0.000642	0.00025	0.015	1.02	0.0004	0.00008	11.1	0.000005	7.41	0.0624	1.76	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000548	0.00241	0.0005	0.00015	-	-
MW1-22 SHALLOW	2023-10-06	0.00005	0.00107	0.005	0.000025	0.0122	22	0.0024	0.0000025	0.000554	0.0178	0.025	1.24	0.00052	0.000177	11.2	0.000005	6.65	0.0619	1.84	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000491	0.00212	0.001	0.00015	-	-
MW12-22 DEEP	2023-05-27	0.00019	0.00039	0.236	0.000025	-	0.0062	0.248	0.0000025	0.00606	0.00272	0.015	3.06	0.00113	0.000141	6.38	0.000005	11.8	0.072	4.31	0.0001	0.000005	0.00005	0.00005	0.00015	0.0394	0.00165	0.00063	0.0013	0.00015	-	-
MW12-22 DEEP	2023-08-01	0.00047	0.00023	0.244	0.000025	0.0076	12	0.173	0.0000025	0.00438	0.0068	0.025	3.29	0.00191	0.000209	7.02	0.000005	6.32	0.0745	2.4	0.0001	0.000005	0.00005	0.00005	0.00015	0.0326	0.00245	0.00082	0.0005	0.00015	-	-
MW12-22 DEEP	2023-10-05	0.00018	0.00044	0.339	0.000025	0.0066	11.6	0.161	0.0000025	0.00442	0.00303	0.025	3.37	0.00162	0.00015

Sample ID	Sample Date / Time	Temp-F (°C)	pH-F (s.u.)	Cond.	Acidity	Alkalinity, bicarbonate (as CaCO3) (mg/L)	Alkalinity, carbonate (as CaCO3) (mg/L)	Alkalinity, hydroxide (as CaCO3) (mg/L)	Alkalinity, phenolphthalein (as CaCO3) (mg/L)	Alk-T (mg/L)	Hardness-D (mg/L)	TDS (mg/L)	TSS (mg/L)	pH-L (s.u.)	NH_3-T (as N) (mg/L)	Cl- (mg/L)	NO_3-N (mg/L)	NO_3-N + NO_2-N (mg/L)	NO_2-N (mg/L)	P-T (by colour) (mg/L)	SO_4 (mg/L)	CN-Free (mg/L)	CN-T (mg/L)	CN-WAD (mg/L)	CN-SAD (mg/L)	Al-D (mg/L)	Sb-D (mg/L)	As-D (mg/L)	Ba-D (mg/L)	Be-D (mg/L)	Bi-D (mg/L)	B-D (mg/L)	Cd-D (mg/L)	Ca-D (mg/L)	Cs-D (mg/L)	Cr-D (mg/L)
MW8-22	2023-10-09	-	-	332	2.5	190	0.5	0.5	0.5	190	169	201	25.3	7.25	0.0025	0.25	0.0888	0.0888	0.0005	0.0366	4.86	0.0005	0.0005	0.0005	-	0.0049	0.00005	0.00048	0.032	0.00001	0.000025	0.005	0.0000196	43.2	0.000048	0.00025
MW9-22 DEEP	2023-06-23	-	-	328	1	152	2.4	0.5	1.2	152	139	204	20.8	8.3	0.022	0.97	0.0025	0.0025	0.0005	0.0677	26	0.0005	0.0005	0.0005	-	0.0043	0.00005	0.00095	0.0151	0.00001	0.000025	0.017	0.0000025	43.2	0.000005	0.0001
MW9-22 DEEP	2023-08-01	-	-	308	1	162	4.6	0.5	2.3	166	122	196	7.4	8.44	0.005	0.71	0.0025	0.0025	0.0005	0.0508	19	0.0005	0.0005	0.0005	-	0.004	0.00005	0.00126	0.0141	0.00001	0.000025	0.005	0.0000025	38.1	0.000005	0.00025
MW9-22 DEEP	2023-10-05	-	-	276	1	153.1	0.5	0.5	0.5	153	126	157	15.7	8.21	0.011	0.45	0.0025	0.0025	0.0005	0.058	6.58	0.0005	0.0005	0.0005	-	0.0012	0.00005	0.00069	0.0124	0.00001	0.000025	0.005	0.0000025	39	0.000005	0.00025
MW9-22 SHALLOW	2023-06-02	-	-	50.9	1	23.6	0.5	0.5	0.5	23.6	21.6	50.4	10	6.38	0.042	0.19	0.0025	0.00255	0.0005	0.018	1.06	0.0005	0.0005	0.0005	-	0.0884	0.00005	0.00094	0.00907	0.000036	0.000025	0.005	0.0000134	6.66	0.000005	0.00046
MW9-22 SHALLOW	2023-08-01	-	-	50.4	5.7	25.8	0.5	0.5	0.5	25.8	21	31.2	2.4	7.04	0.016	0.15	0.0025	0.00255	0.0005	0.0064	0.92	0.0005	0.0005	0.0005	-	0.0958	0.00005	0.001	0.00823	0.000038	0.000025	0.005	0.0000138	6.39	0.000005	0.00025
MW9-22 SHALLOW	2023-10-05	-	-	50.2	15.5	22.9	0.5	0.5	0.5	22.9	23.7	47.8	9.6	6.36	0.0175	0.13	0.0025	0.00255	0.0005	0.0096	0.86	0.0005	0.0005	0.0005	-	0.097	0.00005	0.00097	0.0077	0.000038	0.000025	0.005	0.0000132	7.35	0.000005	0.00025
PTL1MW1-22 DEEP	2023-08-03	-	-	227	1	121	2.6	0.5	1.3	123	59.3	138	3.6	8.33	0.265	0.31	0.0025	0.0696	0.0696	0.0618	5.46	0.0005	0.0005	0.0005	-	0.0106	0.00005	0.00069	0.011	0.00001	0.000025	0.03	0.0000025	17.6	0.000015	0.00005
PTL1MW1-22 DEEP	2023-10-06	-	-	232	1	115	0.5	0.5	0.5	115	84	113	10.5	7.98	0.119	0.28	0.0349	0.0455	0.0106	0.0603	6.15	0.0005	0.0005	0.0005	-	0.0048	0.00014	0.00031	0.0106	0.00001	0.000025	0.03	0.0000025	24.9	0.000012	0.00025
PTL1MW1-22A (Deep)	2023-05-23	-	-	230	1	115	0.5	0.5	0.5	115	83.2	124	31	8.1	0.151	0.31	0.0025	0.0025	0.0005	0.0848	6.4	0.0005	0.0005	0.0005	-	0.0059	0.00012	0.00072	0.0205	0.00001	0.000025	0.031	0.0000025	24.8	0.000015	0.00005
PTL1MW1-22A (Deep)	2022-10-31	6.1	8.1	230	1	-	-	-	-	113	63.6	126	111	8.1	0.1	0.5	0.03	0.03	0.015	-	16	0.0025	0.005	0.005	-	0.011	0.00045	0.001	0.014	0.000011	0.000005	0.037	0.000009	19.3	-	0.00019
PTL1MW2-22	2023-05-23	-	-	315	18.4	160	0.5	0.5	0.5	160	149	206	316	7.33	0.03	1.12	0.28	0.282	0.0024	0.271	5.83	0.0005	0.0005	0.0013	-	0.0545	0.00016	0.0013	0.0505	0.00001	0.000025	0.147	0.0000386	54	0.00002	0.0004
PTL1MW2-22	2023-08-02	-	-	306	21.1	166	0.5	0.5	0.5	166	142	220	361	7.85	0.017	1.08	0.177	0.177	0.0005	0.313	6.48	0.0005	0.0005	0.0005	-	0.0565	0.00005	0.00145	0.0376	0.00001	0.000025	0.005	0.000023	52	0.000023	0.00043
PTL1MW2-22	2023-10-06	-	-	294	21.9	144	0.5	0.5	0.5	144	130	192	88.9	6.83	0.0094	1	0.758	0.758	0.0005	0.0544	5.66	0.0005	0.0005	0.0005	-	0.044	0.00011	0.00129	0.0324	0.000025	0.000025	0.01	0.0000188	47.4	0.00001	0.00082
PTL1MW3-22 DEEP	2023-08-03	-	-	330	2.4	174	5	0.5	2.5	179	172	183	10.4	8.39	0.024	0.77	0.0363	0.0363	0.0005	0.01	11.2	0.0005	0.0005	0.0005	-	0.0027	0.00005	0.00046	0.0464	0.00001	0.000025	0.005	0.0000025	48.4	0.000112	0.00005
PTL1MW3-22 DEEP	2023-10-13	-	-	317	1	177	0.5	0.5	0.5	177	150	198	4	8.16	0.0025	0.68	0.0153	0.0153	0.0005	0.0057	11.1	0.0005	0.0005	0.0005	-	0.0013	0.00005	0.0004	0.0366	0.00001	0.000025	0.005	0.0000025	39.6	0.000097	0.00025
PTL1MW3-22B (Deep)	2023-05-23	-	-	350	3.5	176	0.5	0.5	0.5	176	170	183	58.3	8.1	0.01	0.92	0.0571	0.0571	0.0005	0.0553	10.7	0.0005	0.0005	0.0005	-	0.0025	0.00005	0.004	0.045	0.00001	0.000025	0.005	0.0000025	47.5	0.000099	0.00005
PTL1MW4-22	2023-05-23	-	-	238	4.1	125	0.5	0.5	0.5	125	111	128	22.5	7.77	0.013	0.2	0.0341	0.0341	0.0005	0.0275	2.74	0.0005	0.0005	0.0005	-	0.0057	0.00005	0.00032	0.032	0.00001	0.000025	0.005	0.0000091	30.1	0.000005	0.00025
PTL1MW4-22 DEEP	2023-10-06	-	-	168	4.3	83.6	0.5	0.5	0.5	83.6	82.1	96.9	17.3	7.35	0.0025	0.21	0.0397	0.0397	0.0005	0.0262	1.96	0.0005	0.0005	0.0005	-	0.0054	0.00005	0.00032	0.0208	0.00001	0.000025	0.005	0.0000052	21.4	0.000005	0.00025
PTL1MW4-22 DEEP	2023-08-03	-	-	184	5.6	105	0.5	0.5	0.5	105	87.2	174	7.4	7.43	0.095	0.21	0.0345	0.0345	0.0005	0.0206	2.24	0.0005	0.0005	0.0005	-	0.0067	0.00005	0.00042	0.0253	0.00001	0.000025	0.005	0.0000025	22.8	0.000005	0.00021
PTL2MW3-22	2023-06-15	-	-	452	15.6	238	0.5	0.5	0.5	238	184	288	601	7.99	0.026	0.34	0.23	0.23	0.0005	0.0774	13.9	0.0028	0.0016	0.0028	-	0.006	0.00027	0.00054	0.077	0.00001	0.000025	0.012	0.000041	60.3	0.000005	0.00018
PTL2MW3-22 DEEP	2023-06-26	-	-	417	6.4	218	0.5	0.5	0.5	218	173	246	142	8.02	0.005	0.24	0.187	0.187	0.0005	0.104	11.3	0.0005	0.0005	0.0005	-	0.0078	0.00032	0.00052	0.00052	0.00001	0.000025	0.005	0.0000499	57	0.000005	0.00022
PTL1MW2-22	2022-10-31	8.4	7.16	285	1	-	-	-	-	179	167	234	77	7.16	0.05	0.5	0.08	0.08	0.015	-	5	0.0025	0.005	0.005	-	0.061	0.00045	0.002	0.0365	0.000051	0.000005	0.013	0.000033	62.4	-	0.00147
PTL1MW3-22A (Shallow)	2022-11-01	4.4	7.72	225	1	-	-	-	-	136	128	166	290	7.72	0.05	0.5	0.09	0.09	0.015	-	5	0.0025	0.005	0.005	-	0.006	0.00045	0.0005	0.0298	0.0000035	0.000005	0.014	0.000014	34.8	-	0.00017
PTL1MW3-22B (Deep)	2022-11-01	4.6	7.85	295	1	-	-	-	-	169	170	246	41	7.85	0.05	0.5	0.03	0.03	0.015	-	12	0.0025	0.005	0.005	-	0.004	0.00045	0.0004	0.0345	0.0000035	0.000005	0.016	0.000005	47.7	-	0.00004
TRAVEL BLANK	2023-05-24	-	-	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.5	5.44	0.024	0.05	0.0025	0.00255	0.0005	0.001	0.15	0.0005	0.0005	0.0005	-	0.0005	0.00005	0.00005	0.00005	0.00001	0.000025	0.005	0.0000025	0.025	0.000005	0.00005
TRAVEL BLANK	2023-08-05	-	-	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.5	5.5	0.005	0.05	0.0025	0.00255	0.0005	0.001	0.15	0.0005	0.0005	0.0005	-	0.0012	0.00005	0.00005	0.00005	0.00001	0.000025	0.005	0.0000025	0.025	0.000005	0.00005
TRAVEL BLANK	2023-10-03	-	-	0.5	1	0.5	0.5	0.5	0.5	0.5	0.25	1.5	0.5	5.72	0.0025	0.05	0.0025	0.00255	0.0005	0.001	0.15	0.0005	0.0005	0.0005	-	0.0005	0.00005	0.00005	0.00005	0.00001	0.000025	0.005	0.0000025	0.025	0.000005	0.00025
AEX Potable Well	2024-05-18	-	-	226	1	126	0.5	0.5	0.5	126	112	143	49.7	8.08	-	0.18	0.0025	0.00255	0.0005	0.0376	2.83	0.0005	-	0.0005	0.0005	0.0005	0.00005	0.00121	0.0124	0.00001	0.000025	0.005	0.0000025	33.3	0.000005	0.00005
AEX Potable Well	2024-09-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00013
AEX Potable Well	2024-09-01	-	-	233	1	127	0.5	0.5	0.5	127	110	134	1.8	8.1	-	0.2	0.0425	0.0436	0.0011	0.0066	3.46	0.0005	-	0.0005	0.0028	0.0005	0.00098	0.0165	0.00001	0.000025	0.005	0.0000025	33.9	0.000005	0.00018
AEX Potable Well	2024-09-01	-	-	232	1	127	0.5	0.5	0.5	127	108	133	2.7	8.08	-	0.2	0.0408	0.042	0.0012	0.0068	3.42	0.0005	-	0.0005	0.0005	0.0033	0.00005	0.00092	0.0166	0.00001	0.000025	0.005	0.0000025	32.7	0.000005	0.00025
BH22-118	2024-05-12	-	-	39.7	6.9	16.9	0.5	0.5	0.5	16.9	13.5	34.6	7.8	6.42	-	0.05	0.0322	0.0322	0.0005	0.0127	1.99	0.0005	-	0.0005	0.0005	0.0169	0.00005	0.00016	0.0024	0.000028	0.000025	0.005	0.0000025	3.44	0.000024	0.00011
BH22-118	2024-08-14	-	-	41.1	14.1	16.8	0.5	0.5	0.5	16.8	12.8	26.7	5	6.7	-	0.13	0.0223	0.0223	0.0005	0.0166	1.91	0.0005	-	0.0005	0.0005	0.0259	0.00005	0.00022	0.0045	0.000034	0.000025	0.005	0.0000056	3.31	0.000038	0.0001
BH22-118	2024-10-27	-	-	46.7	4.9	19.6	0.5	0.5	0.5	19.6	13.9	33.1	5.9	6.65	-	0.13	0.0248	0.0248	0.0005	0.018	1.66	0.0005	-	0.0005	0.0005	0.035	0.00005	0.00023	0.00352	0.00004	0.000025	0.005	0.0000083	3.63	0.000036	0.00011
BH22-120	2024-05-12	-	-	103	6.7	43.9	0.5	0.5	0.5	43.9	40.4	79.3	3.5	6.7	-	0.16	0.124	0.124	0.0005	0.004	5.49	0.0005	-	0.0005	0.0005	0.003	0.00005	0.00016	0.00548	0.00001	0.000025	0.005	0.0000086	12.4	0.000067	0.00012
BH22-120	2024-05-12	-	-	103	5.2	44	0.5	0.5	0.5	44	34.1	73	3.7	6.75	-	0.16	0.126	0.126	0.0005	0.0049	5.58	0.0005	-	0.0005	0.0005	0.0034	0.00005	0.00015	0.00455	0.00001	0.000025	0.005	0.000007	10.6	0.000056	0.00005
BH22-120	2024-08-14	-	-	104	19	43.3	0.5	0.5	0.5	43.3	39	46.3	0.5	7.01	-	0.17	0.125	0.125	0.0005	0.0028	5.32	0.0005	-	0.0005	0.0005	0.0027	0.00005	0.00019	0.00511	0.00001	0.000025	0.005	0.0000065	12.6	0.000076	0.00005
BH22-120	2024-10-27	-	-	109	4.4	46.4	0.5	0.5	0.5	46.4	47.2	75.1	1.4	7.06	-	0.17	0.133	0.133	0.0005	0.0027	5.83	0.0005	-	0.0005	0.0005	0.0035	0.00005	0.00021	0.00591	0.00001	0.000025	0.005	0.0000083	14.6	0.000086	0.00005
BH22-120	2024-10-27	-	-	108	4.7	45.7	0.5	0.5	0.5	45.7	45.7	74.1	0.5	7.05	-	0.18	0.133	0.134	0.0015	0.0024	5.83	0.0005	-	0.0005	0.0005	0.0031	0.00005	0.0002	0.00568	0.00001	0.000025	0.005	0.0000094	14.2	0.000078	0.00005
BH22-124	2024-05-14	-	-	376	8.5	197	0.5	0.5	0.5	197	175	240	644	7.49	-	3.49	0.182	0.186	0.0036	0.874	2.43	0.0005	-	0.0005	0.0005	0.0631	0.00005	0.00102	0.0324	0.00001	0.000025	0.005	0.0000254	52.2	0.000005	0.00047
BH22-124	2024-08-28	-	-	242	7.5	129	0.5	0.5	0.5	129	118	182	6300	7.73	-	0.97	0.0025	0.00255	0.0005	10.6	2.48	0.0005	-	0.0005	0.0005	0.036	0.00005	0.00102	0.0276	0.00001	0.000025	0.005	0.0000069	36.3	0.000005	0.00021
BH22-202 Deep	2024-05-13	-	-	249	1	127	0.5	0.5	0.5	127	116	141	1.5	8.07	-	0.05	0.0025	0.00255	0.0005	0.0084	7.41	0.0005	-	0.0005	0.0005	0.0032	0.00005	0.00045	0.011	0.00001	0.000025	0.005	0.0000025	38.6	0.000005	0.00005
BH22-202 Shallow	2024-05-13	-	-	394	15.8	221	0.5	0.5	0.5	221	194	305	920	6.98	-	0.31	0.0025	0.00255	0.0005	0.0864	0.15	0.0005	-	0.0005	0.0005	0.0193	0.00005	0.00326	0.0683	0.000067	0.000025	0.005	0.0000025	51.6	0.000005	0.00343
BH22-203	2024-05-13	-	-	312	1	169	0.5	0.5	0.5	169	147	181	4	8	-	0.16	0.0025	0.00255	0.0005	0.024	3.23	0.0005	-	0.0005	0.0005	0.0042	0.00005	0.00016	0.0103	0.00001	0.000025	0.005	0.0000025	43.3	0.000028	0.00015
BH22-206	2024-05-18	-	-	416	1	243	0.5	0.5	0.5	243	190	257	23.7	7.83	-	0.42	0.0025	0.00255	0.0005	0.095	0.15	0.0005	-	0.0005	0.0005	0.0045	0.00005	0.00149	0.0563	0.000023	0.000025	0.019	0.0000025	64.7	0.000011	0.00049
BH22-206	2024-08-27	-	-	424	7.2	244	0.5	0.5	0.5	244	181	290	8.7	8	-	0.42	0.007	0.007	0.0005	0.0857	0.15	0.0005	-	0.0005	0.0005	0.0039	0.00005	0.00135	0.0591	0.00001	0.000025	0.012	0.0000025	62.4	0.000012	0.00047
BH22-206	2024-10-27	-	-	426	2.8	242	0.5	0.5	0.5	242	211	286	3.6	7.97	-	0.41	0.0025	0.00255	0.0005	0.0771	0.15	0.0005	-	0.0005	0.0005	0.005	0.00005	0.00082	0.0587	0.00001	0.000025	0.014	0.0000025	73.2	0.000012	0.00042
BH22-209	2024-05-08	-	-	264	1	142	0.5	0.5	0.5	142	124	144	571	8.03	-	0.76	0.0025	0.00255	0.0005	0.0809	0.74	0.0005	-	0.0005	0.0005	0.009	0.00005	0.00071	0.0146	0.00001	0.000025	0.047	0.0000061	32.4	0.000005	0.00005
BH22-209	2024-05-08	-	-	270	1	149	0.5	0.5	0.5	149	125	150	493	8.06	-	0.86	0.0025	0.00255	0.0005	0.103	0.15	0.0005	-	0.0005	0.0005	0.007	0.00005	0.00089	0.0166	0.00001	0.000025	0.046	0.0000058	32.6	0.000005	0.00005
BH22-209	2024-08-28	-	-	226	1	123	0.5	0.5	0.5	123	97	128	13	8.11	-	0.37	0.0025	0.00255	0.0005	0.0119	3.5	0.0005	-	0.0005	0.0005	0.0075	0.00019	0.0003	0.00869	0.00001	0.000025	0.036	0.0000051	25.5	0.000005	0.00005
BH22-209	2024-10-16	-	-	228	3.9	121	0.5	0.5	0.5	121	92.7	136	118	8.03	-	0.33	0.0074	0.0074	0.0005	0.03	4.28	0.0005	-	0.0005	0.0005	0.0077	0.00019	0.00026	0.00788	0.00001	0.000025	0.033	0.0000025	24.9	0.000005	0.00005
BH23-121	2024-05-05	-	-	782	31.2	354	0.5	0.5	0.5	354	311	436	6.9	7.67	-	41.7	0.0025	0.00255	0.0005	0.0099	14.9	0.0005	-	0.0005	0.005	0.00013	0.00048	0.106	0.00001	0.000025	0.071	0.0000161	91.7	0.000005	0.00005
BH23-121	2024-08-26	-	-	821	40.4	418	0.5	0.5	0.5	418	338	470	10	8.05	-	23	0.005	0.0051	0.001	0.006	18.6	0.0005	-	0.0005	0.0005	0.0017	0.00005	0.00048	0.122	0.00001	0.000025	0.06	0.0000209	97.3	0.000005	0.00005
BH23-AEX-25	2024-05-03	-	-	759	1	260	9	0.5	4.5	268	83.4	950	7750	8.32	-	1.91	0.0122	0.0133	0.0011	11.2	189	0.0005	-	0.0005	0.0005	2.11	0.00016	0.00794	0.0449	0.000101	0.000025	0.005	0.0000376	21.8	0.00036	0.00633
BH23-AEX-25	2024-08-21	-	-	481	1	165	8.8	0.5	4.4	174	35.8	444	1000	8.48	-	0.49	0.0025	0.00255	0.0005	1.38	87.2	0.0005	-	0.0005	0.0005	0.0263	0.00005	0.00238	0.00855	0.00001	0.000025	0.005	0.0000074	10.2	0.000005	0.00012
BH23-AEX-25	2024-10-21	-	-	321	1	127	11.4	0.5	5.7	138	44.5	280	9980	8.62	-	0.24	0.0025	0.00255	0.0005	9.97	40.3	0.0005	-	0.0005	0.0005	0.0185	0.00005	0.00201	0.00702	0.00001	0.000025	0.005	0.0000025	12.8	0.000005	0.00005
BH23-AEX-29	2024-05-03	-	-	285	3.3	149	0.5	0.5	0.5	149	119	229	2530	7.92	-	0.32	0.01	0.011	0.001	1.13	16	0.0005	-	0.0005	0.0005	0.0375	0.00005	0.00074	0.0148	0.00001	0.000025	0.005	0.0000025	36	0.000025	0.00026
BH23-AEX-29	2024-08-20	-	-	272	2.3	138	0.5	0.5	0.5	138	127	224	643	8	-	0.41	0.0064	0.0064	0.0005	0.352	10.5	0.0005	-	0.0005	0.0005	0.0005	0.00005	0.00057	0.0166	0.00001	0.000025	0.005	0.0000025	39.3	0.000018	0.00005
BH23-AEX-29	2024-10-21	-	-	266	2.1	140	0.5	0.5	0.5	140	132	181	1600	8.1	-	0.19	0.0025	0.00255	0.0005	0.624	9.73	0.0005	-	0.0005	0.0005	0.0013	0.00005	0.00052	0.017	0.00001	0.000025	0.005	0.0000025	41.3	0.000016	0.00005
BH23-AEX-32G	2024-05-03	-	-	395	8.2	222	0.5	0.5	0.5	222	191	218	96.7	7.74	-	0.19	0.0025	0.00255	0.0005	0.073	5.76	0.0005	-	0.0005	0.0005	0.0032	0.00012	0.00063	0.036	0.00001	0.000025	0.005	0.0000025	52.4	0.000011	0.00005
BH23-AEX-32G	2024-08-19	-	-	339	1	182	0.5	0.5	0.5	182	174	194	9	8.03	-	0.18	0.0025	0.00255	0.0005	0.0145	5.72	0.0005	-	0.0005	0.0005	0.0016	0.00005	0.00081	0.0296	0.00001	0.000025	0.005	0.0000025	47.6	0.000005	0.00005
BH23-AEX-32G	2024-10-21	-	-	386	5.2	213	0.5	0.5	0.5	213	208	205	10.7	8.13	-	0.18	0.0025	0.00255	0.0005	0.0177	6.07	0.0005	-	0.0005	0.0005	0.0043	0.00005	0.00073	0.0319	0.00001	0.000025	0.005	0.0000025	57	0.000012	0.00005
BH23-AEX-39	2024-05-03	-	-	310	1	166	0.5	0.5	0.5	166	115	176	8.4	8.17	-	0.55	0.0025	0.00255	0.0005	0.027	5.82	0.0005	-	0.0005	0.0005	0.0032	0.00005	0.0013	0.0262	0.00001	0.000025	0.013	0.0000052	37.5	0.000005	0.00005
BH23-AEX-39	2024-08-13	-	-	311	1	163	5.8	0.5	2.9	169	117	186	5.1	8.38	-	0.56	0.0025	0.00255	0.0005	0.0157	6.58	0.0005	-	0.0005	0.0005	0.002	0.00005	0.00591	0.0249	0.00001	0.000025	0.011	0.0000025	38.4	0.000005	0.00005
BH23-AEX-39	2024-10-21	-	-	311	1	165	2.4	0.5	1.2	167	135	181	3.8	8.29	-	0.53	0.0025	0.00255	0.0005	0.0128	5.74	0.0005	-	0.0005	0.0005	0.0028	0.00005	0.00103	0.0267	0.00001	0.000025	0.012	0.0000025	44.2	0.000005	0.00005
MW1/22 Deep	2024-05-08	-	-	259	3.2	139	0.5	0.5	0.5	139	130	135	4.6	7.58	-	0.31	0.0025	0.00255	0.0005	0.0098	4.17	0.0005	-	0.0005	0.0005	0.0022	0.00005	0.00066	0.0195	0.00001	0.000025	0.011	0.0000025	36.3	0.000005	0.00005
MW1/22 Deep	2024-08-25	-	-	260	1	136	0.5	0.5	0.5	136	124	142	5.8	7.95	-	0.38	0.0025	0.00255	0.0005	0.014	4.51	0.0005	-	0.0005	0.0005	0.0031	0.00005	0.00064	0.0199	0.00001	0.000025	0.005	0.0000025	34	0.000005	0.00005
MW1/22 Deep	2024-10-20	-	-	265	5	141	0.5	0.5	0.5	141	129	170	5.4	7.99	-	0.42	0.0025	0.00255	0.0005	0.0113	4.46	0.0005	-	0.0005	0.0005	0.0029	0.00005	0.00065	0.0203	0.00001	0.000025	0.005	0.0000025	35.3	0.000005	0.00025
MW10/22 Deep	2024-05-04	-	-	269	1	137	0.5	0.5	0.5	137	128	159	525	8	-	1.46	0.0025	0.00255	0.0005	0.27	11.4	0.0005	-	0.0005	0.0005	0.0152	0.00005	0.00214	0.0356	0.00001	0.000025	0.005	0.0000025	38.7	0.000005	0.00005
MW10/22 Deep	2024-08-24	-	-	269	1

Sample ID	Sample Date / Time	Co-D (mg/L)	Cu-D (mg/L)	Fe-D (mg/L)	Pb-D (mg/L)	Li-D (mg/L)	Mg-D (mg/L)	Mn-D (mg/L)	Hg-D (mg/L)	Mo-D (mg/L)	Ni-D (mg/L)	P-D (mg/L)	K-D (mg/L)	Rb-D (mg/L)	Se-D (mg/L)	Si-D (mg/L)	Ag-D (mg/L)	Na-D (mg/L)	Sr-D (mg/L)	S-D (mg/L)	Te-D (mg/L)	Tl-D (mg/L)	Th-D (mg/L)	Sn-D (mg/L)	Ti-D (mg/L)	W-D (mg/L)	(mg/L)	V-D (mg/L)	Zn-D (mg/L)	Zr-D (mg/L)	MeHg (ng/L)	Low Level Hg (ng/L)
MW8-22	2023-10-09	0.00106	0.00858	0.011	0.000025	0.0121	14.9	0.0995	0.0000025	0.0021	0.00316	0.025	2.75	0.00414	0.000065	12	0.000005	5.77	0.0599	2.05	0.0001	0.00002	0.00005	0.00005	0.00015	0.00016	0.000747	0.00096	0.001	0.00015	-	-
MW9-22 DEEP	2023-06-23	0.00005	0.0001	0.0765	0.000025	0.0056	7.51	3	0.0000025	0.00346	0.00025	0.058	2.96	0.00199	0.000025	6.97	0.000005	20.9	0.0876	9.21	0.0001	0.000005	0.00005	0.00005	0.00015	0.0131	0.00032	0.00025	0.001	0.00015	-	-
MW9-22 DEEP	2023-08-01	0.00005	0.0001	0.657	0.000025	0.0059	6.56	0.145	0.0000025	0.00289	0.00025	0.025	2.78	0.00196	0.000025	6.46	0.000005	15.2	0.0897	6.41	0.0001	0.000005	0.00005	0.00005	0.00015	0.0104	0.000523	0.00025	0.0005	0.00015	-	-
MW9-22 DEEP	2023-10-05	0.00005	0.0001	0.575	0.000186	0.0054	6.83	0.135	0.0000025	0.00214	0.00025	0.025	2.84	0.00206	0.000025	7.75	0.000005	8.82	0.0768	2.8	0.0001	0.000005	0.00005	0.00011	0.00015	0.00777	0.000192	0.00025	0.0005	0.00015	-	-
MW9-22 SHALLOW	2023-06-02	0.00494	0.0014	2.15	0.00019	0.0005	1.2	0.31	0.0000069	0.000512	0.00074	0.015	0.713	0.00345	0.000025	8.74	0.000005	1.55	0.0362	0.025	0.0001	0.000028	0.00059	0.00005	0.00423	0.00005	0.000242	0.0009	0.0021	0.00087	-	-
MW9-22 SHALLOW	2023-08-01	0.00513	0.00156	2.38	0.000182	0.0005	1.22	0.351	0.0000081	0.000168	0.00073	0.025	0.728	0.00379	0.000025	8.15	0.000005	1.48	0.0395	0.25	0.0001	0.000028	0.0005	0.00005	0.00468	0.00005	0.000255	0.00104	0.0018	0.00092	-	-
MW9-22 SHALLOW	2023-10-05	0.0055	0.00298	2.7	0.000148	0.0005	1.3	0.33	0.0000071	0.00018	0.00087	0.025	0.807	0.00361	0.000025	9.1	0.000207	1.64	0.0393	0.25	0.0001	0.000024	0.00061	0.00018	0.00497	0.00005	0.000203	0.001	0.0021	0.00095	-	-
PTL1MW1-22 DEEP	2023-08-03	0.0011	0.00026	0.19	0.000025	0.0028	3.74	0.0157	0.0000025	0.00496	0.00025	0.066	3.8	0.00253	0.000025	5.24	0.000005	25.7	0.0802	2.22	0.0001	0.000005	0.00005	0.00005	0.00031	0.00441	0.00065	0.00025	0.0014	0.00015	-	-
PTL1MW1-22 DEEP	2023-10-06	0.00091	0.0006	0.184	0.000025	0.0027	5.29	0.136	0.0000025	0.00213	0.00025	0.025	3.88	0.00249	0.000025	5.81	0.000005	12.9	0.111	2.33	0.0001	0.000005	0.00005	0.00005	0.00015	0.0029	0.000275	0.00025	0.0013	0.00015	-	-
PTL1MW1-22A (Deep)	2023-05-23	0.00193	0.0001	0.356	0.000025	0.0028	5.16	0.227	0.0000025	0.00329	0.00052	0.056	3.58	0.00246	0.000025	5.59	0.000005	14.8	0.108	1.97	0.00027	0.000005	0.00005	0.00012	0.00015	0.00384	0.000464	0.00025	0.0013	0.00015	-	-
PTL1MW1-22A (Deep)	2022-10-31	0.00136	0.0027	0.026	0.000045	-	3.76	0.144	0.00002	0.0165	0.001	0.036	3.16	-	0.00002	6.33	0.000025	25	-	4	-	0.000005	-	0.00009	0.00041	0.00496	0.000813	0.00063	0.003	0.001	-	-
PTL1MW2-22	2023-05-23	0.00142	0.00578	0.09	0.000051	0.0055	3.54	0.358	0.0000025	0.00262	0.00303	0.025	3.96	0.00242	0.000105	11.5	0.000005	7.64	0.0673	2.49	0.0001	0.000016	0.00013	0.00005	0.00287	0.00032	0.000823	0.00067	0.0041	0.00045	-	-
PTL1MW2-22	2023-08-02	0.0011	0.00439	0.118	0.000057	0.0058	2.97	0.277	0.0000025	0.00148	0.0023	0.015	4.72	0.0021	0.00011	12.3	0.000005	6.28	0.069	2.41	0.0001	0.000015	0.00005	0.00005	0.00407	0.00014	0.000519	0.00088	0.0021	0.00015	-	-
PTL1MW2-22	2023-10-06	0.00025	0.00533	0.056	0.000025	0.005	2.86	0.0844	0.0000025	0.00124	0.00189	0.025	3.53	0.00176	0.000103	13.2	0.000005	8.6	0.0603	2.02	0.0001	0.000018	0.00022	0.00005	0.00104	0.00005	0.000504	0.00066	0.0017	0.00058	-	-
PTL1MW3-22 DEEP	2023-08-03	0.0016	0.00051	0.123	0.000025	0.0098	12.3	0.0438	0.0000025	0.00412	0.00369	0.015	4.84	0.00471	0.000345	6.57	0.000005	4.36	0.0836	4.34	0.0001	0.000011	0.00005	0.00005	0.00015	0.215	0.00368	0.00025	0.0034	0.00015	-	-
PTL1MW3-22 DEEP	2023-10-13	0.00134	0.00035	0.115	0.000025	0.0057	12.4	0.0407	0.0000025	0.00352	0.00296	0.025	4.67	0.00393	0.000215	6.08	0.000005	4.56	0.077	3.93	0.0001	0.00001	0.00005	0.00005	0.00015	0.171	0.00351	0.00025	0.0005	0.00015	-	-
PTL1MW3-22B (Deep)	2023-05-23	0.00181	0.00043	0.176	0.000025	0.0108	12.6	0.0486	0.0000025	0.00416	0.00446	0.015	4.76	0.00472	0.000514	6.21	0.000005	6.21	0.0787	3.18	0.0001	0.000011	0.00005	0.00005	0.00015	0.223	0.00474	0.00025	0.0015	0.00015	-	-
PTL1MW4-22	2023-05-23	0.0001	0.00097	0.005	0.000025	0.0042	8.77	0.0284	0.0000025	0.00125	0.00116	0.025	1.48	0.00237	0.000123	8.77	0.000005	5.88	0.0754	0.67	0.0001	0.00001	0.00005	0.00005	0.00015	0.0366	0.00224	0.00025	0.0012	0.00015	-	-
PTL1MW4-22 DEEP	2023-10-06	0.00005	0.00069	0.005	0.000025	0.0033	6.96	0.00284	0.0000025	0.000534	0.00051	0.025	1.17	0.00195	0.000123	9.08	0.000005	3.87	0.044	0.8	0.0001	0.000005	0.00005	0.00005	0.00015	0.0094	0.00149	0.00025	0.0005	0.00015	-	-
PTL1MW4-22 DEEP	2023-08-03	0.00005	0.00095	0.005	0.000025	0.0033	7.35	0.00381	0.0000025	0.000685	0.00066	0.015	1.32	0.002	0.000101	9.73	0.000005	3.93	0.0432	0.93	0.0001	0.000005	0.00005	0.00005	0.00015	0.024	0.00147	0.00025	0.0075	0.00015	-	-
PTL2MW3-22	2023-06-15	0.0156	0.00757	0.005	0.000121	0.0083	8.17	0.0716	0.0000025	0.00616	0.00379	0.015	4.28	0.00169	0.000614	7.12	0.000005	7.12	0.175	4.85	0.0001	0.00001	0.00005	0.00021	0.00015	0.0408	0.0038	0.00025	0.0112	0.00015	-	-
PTL2MW3-22 DEEP	2023-06-26	0.0129	0.00607	0.012	0.000068	0.0074	7.55	0.0558	0.0000025	0.00432	0.00333	0.015	3.96	0.00179	0.000433	6.87	0.000005	11.5	0.164	4.38	0.0001	0.000005	0.00005	0.00005	0.00036	0.0351	0.00296	0.00025	0.0491	0.00015	-	-
PTL1MW2-22	2022-10-31	0.00104	0.0054	0.121	0.000045	-	2.59	0.372	0.00001	0.00261	0.0027	0.014	4.16	-	0.00013	19.8	0.000025	5.72	-	2	-	0.000025	-	0.00009	0.00243	0.00009	0.000884	0.00095	0.002	0.001	-	-
PTL1MW3-22A (Shallow)	2022-11-01	0.000231	0.002	0.015	0.000045	-	9.92	0.087	0.000005	0.00194	0.002	0.008	1.89	-	0.00019	9.13	0.000025	6.38	-	0.5	-	0.000009	-	0.0001	0.00027	0.00392	0.00247	0.00046	0.009	0.001	-	-
PTL1MW3-22B (Deep)	2022-11-01	0.0014	0.0007	0.014	0.000045	-	12.3	0.0631	0.000005	0.00449	0.002	0.0015	4.54	-	0.00039	6.42	0.000025	6.08	-	3	-	0.000005	-	0.00003	0.00021	0.159	0.00397	0.00007	0.001	0.001	-	-
TRAVEL BLANK	2023-05-24	0.00005	0.0001	0.005	0.000025	0.0005	0.0025	0.00005	0.0000025	0.0000025	0.00025	0.015	0.025	0.0001	0.000025	0.025	0.000005	0.025	0.0001	0.025	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000005	0.00025	0.0005	0.00015	-	-
TRAVEL BLANK	2023-08-05	0.00005	0.0001	0.005	0.000025	0.0005	0.0025	0.00005	0.0000025	0.000025	0.00025	0.015	0.025	0.0001	0.000025	0.05	0.000005	0.025	0.0001	0.25	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000005	0.00025	0.0005	0.00015	-	-
TRAVEL BLANK	2023-10-03	0.00005	0.0001	0.005	0.000025	0.0005	0.0086	0.00005	0.0000025	0.000025	0.00025	0.025	0.025	0.0001	0.000025	0.025	0.000005	0.025	0.0001	0.25	0.0001	0.000005	0.00005	0.00005	0.00015	0.00005	0.000005	0.00025	0.0005	0.00015	-	-
AEX Potable Well	2024-05-18	0.00037	0.0001	0.112	0.000025	0.0056	7.07	0.126	0.0000025	0.0017	0.00025	-	2.85	0.00075	0.000082	8	0.000005	3.46	0.0531	1.2	0.0001	0.000005	0.00005	0.00005	0.00015	0.00052	0.000654	0.00025	0.0005	0.00015	-	-
AEX Potable Well	2024-09-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AEX Potable Well	2024-09-01	0.00024	0.00029	0.011	0.000025	0.0052	6.27	0.0437	0.0000025	0.000769	0.0012	-	2.54	0.0009	0.0001	7.82	0.000005	3.27	0.0529	1.43	0.0001	0.000005	0.00005	0.00005	0.00015	0.00024	0.000738	0.00114	0.0005	0.00015	-	-
AEX Potable Well	2024-09-01	0.00024	0.00035	0.014	0.000025	0.0051	6.35	0.0443	0.0000025	0.00076	0.00122	-	2.58	0.00081	0.000076	7.75	0.000005	3.28	0.0548	1.3	0.0001	0.000005	0.00005	0.00005	0.00015	0.00024	0.000723	0.00104	0.0005	0.00015	-	-
BH22-118	2024-05-12	0.00015	0.00217	0.005	0.000025	0.0005	1.2	0.00254	0.0000025	0.000858	0.00025	-	0.388	0.00177	0.000074	5.86	0.000005	1.88	0.0132	0.69	0.0001	0.000005	0.00005	0.00005	0.00015	0.00204	0.000298	0.00025	0.0014	0.00015	-	-
BH22-118	2024-08-14	0.0002	0.00215	0.011	0.000025	0.0005	1.09	0.00407	0.0000025	0.00124	0.00025	-	0.485	0.00264	0.000067	6.42	0.000005	1.95	0.0118	0.51	0.0001	0.00001	0.00005	0.00005	0.00154	0.00496	0.00026	0.00025	0.0021	0.00015	-	-
BH22-118	2024-10-27	0.00028	0.00262	0.013	0.000067	0.0005	1.18	0.00403	0.0000025	0.0014	0.00025	-	0.476	0.00238	0.000076	7.46	0.000005	2.93	0.0146	0.25	0.0001	0.000012	0.00005	0.00005	0.00161	0.00501	0.000322	0.00025	0.0015	0.00015	-	-
BH22-120	2024-05-12	0.0003	0.00367	0.005	0.000025	0.0022	2.28	0.0016	0.0000025	0.00101	0.0017	-	1.46	0.00355	0.00033	7.46	0.000005	2.96	0.0442	2.04	0.0001	0.000011	0.00005	0.00005	0.00015	0.00012	0.00144	0.00025	0.0028	0.00015	-	-
BH22-120	2024-05-12	0.00024	0.003	0.005	0.000025	0.0029	1.86	0.00138	0.0000025	0.00083	0.00134	-	1.33	0.00311	0.000247	6.5	0.000005	2.37	0.0373	1.27	0.0001	0.000005	0.00005	0.00005	0.00015	0.00012	0.00121	0.00025	0.0022	0.00015	-	-
BH22-120	2024-08-14	0.00031	0.00369	0.005	0.000025	0.0018	1.83	0.0008	0.0000025	0.00105	0.00149	-	1.44	0.00372	0.000271	6.54	0.000005	2.62	0.0448	1.68	0.0001	0.000011	0.00005	0.00005	0.00015	0.00017	0.0013	0.00025	0.0022	0.00015	-	-
BH22-120	2024-10-27	0.00048	0.00473	0.005	0.000025	0.0023	2.6	0.00111	0.0000025	0.00136	0.00186	-	1.68	0.00403	0.000304	7.99	0.000005	3.43	0.0522	2.08	0.0001	0.000013	0.00005	0.00005	0.00015	0.00028	0.0016	0.00025	0.0029	0.00015	-	-
BH22-120	2024-10-27	0.00049	0.00473	0.005	0.000025	0.0022	2.48	0.00101	0.0000025	0.00126	0.00183	-	1.6	0.004	0.000264	7.88	0.000005	3.37	0.0527	1.95	0.0001	0.000012	0.00005	0.00005	0.00015	0.00028	0.00156	0.00025	0.0035	0.00015	-	-
BH22-124	2024-05-14	0.00062	0.00303	0.09	0.000025	0.0046	10.9	0.249	0.0000025	0.000512	0.00248	-	1.92	0.0012	0.00015	6.44	0.000005	7.6	0.0839	1.09	0.0001	0.000005	0.00005	0.00013	0.00005	0.00371	0.00178	0.00188	0.00152	0.0005	0.00074	-	-
BH22-124	2024-08-28	0.00052	0.0005	0.48	0.000025	0.0054	6.74	0.245	0.0000025	0.000366	0.00114	-	2.62	0.00211	0.000025	10.1	0.000005	3.43	0.0612	1.11	0.0001	0.000005	0.00005	0.00005	0.00056	0.00063	0.00064	0.00059	0.0005	0.00015	-	-
BH22-202 Deep	2024-05-13	0.0005	0.0001	0.87	0.000025	0.0025	4.75	0.0382	0.0000025	0.00183	0.00025	-	1.66	0.00114	0.000025	5.48	0.000005	2.4	0.0335	2.77	0.0001	0.000005	0.00005	0.00005	0.00015	0.00127	0.000244	0.00025	0.0005	0.00015	-	-
BH22-202 Shallow	2024-05-13	0.00108	0.0001	15.2	0.000025	0.0051	15.8	0.931	0.0000025	0.000377	0.00091	-	0.866	0.00106	0.000072	19.2	0.000005	5.58	0.0911	0.25	0.0001	0.000005	0.00029	0.00005	0.0101	0.00005	0.0001	0.00775	0.0005	0.0054	-	-
BH22-203	2024-05-13	0.00005	0.0001	1.29	0.000025	0.0052	9.52	0.233	0.0000025	0.00156	0.00025	-	2.13	0.00098	0.000025	9.49	0.000005	3.5	0.0664	1.29	0.0001	0.000005	0.00005	0.00005	0.00035	0.00023	0.000045	0.00056	0.0005	0.00015	-	-
BH22-206	2024-05-18	0.0003	0.0001	2.15	0.000025	0.0072	6.99	0.798	0.0000025	0.0101	0.00025	-	1.92	0.00125	0.000066	12.8	0.000005	18.2	0.108	0.25	0.0001	0.000005	0.00005	0.00005	0.00016	0.00233	0.000142	0.000186	0.00149	0.0005	0.00122	-	-
BH22-206	2024-08-27	0.00024	0.0001	3.68	0.000025	0.0058	6.06	0.657	0.0000025	0.00934	0.00025	-	1.77	0.00113	0.000126	11.4	0.000005	17.3	0.103	0.25	0.0001	0.000005	0.00005	0.00005	0.00231	0.00163	0.000122	0.00164	0.0005	0.0012	-	-
BH22-206	2024-10-27	0.00018	0.0001	3.71	0.000025	0.005	6.78	0.653	0.0000025	0.00717	0.00025	-	1.71	0.00124	0.000025	13.3	0.000005	17.2	0.109	0.25	0.0001	0.000005	0.00005	0.00005	0.00288	0.00111	0.000116	0.0015	0.0005	0.00119	-	-
BH22-209	2024-05-08	0.00005	0.0001	0.057	0.000025	0.0101	10.6	0.99	0.0000025	0.0317	0.00086	-	1.64	0.00138	0.000025	6.79	0.000005	10.9	0.141	0.25	0.0001	0.000005	0.00005	0.00005	0.00015	1.77	0.00164	0.00025	0.0005	0.00015	-	-
BH22-209	2024-05-08	0.00005	0.00037	0.016	0.000025	0.0094	10.5	1.22	0.0000025	0.0367	0.00065	-	1.56	0.00128	0.000025	6.56	0.000005	10.4	0.147	0.25	0.0001	0.000005	0.00005	0.00005	0.00015	1.92	0.000991	0.00025	0.0005	0.00015	-	-
BH22-209	2024-08-28	0.00016	0.00157	0.039	0.000025	0.0087	8.1	0.271	0.0000025	0.0147	0.00158	-	1.24	0.00121	0.000058	6.75	0.000005	8.21	0.12	1.48	0.0001	0.000005	0.00005	0.00005	0.00015	0.296	0.00422	0.00025	0.002	0.00015	-	-
BH22-209	2024-10-16	0.00022	0.00062	0.22	0.000025	0.0067	7.41	0.172	0.0000025	0.00878	0.00168	-	1.09	0.00108	0.000025	6.21	0.000014	7.01	0.116	1.41	0.0001	0.000005	0.00005	0.00005	0.00015	0.0898	0.00556	0.00025	0.0016	0.00015	-	-
BH23-121	2024-05-05	0.0146	0.00137	0.108	0.000025	0.017	19.9	2.02	0.0000025	0.0189	0.0141	-	8.07	0.00078	0.000025	7.74	0.000005	41.7	0.175	5.94	0.0001	0.000005	0.00005	0.00005	0.00015	0.00273	0.00579	0.00025	0.0026	0.00015	-	-
BH23-121	2024-08-26	0.015	0.00085	0.093	0.000025	0.015	23	2.26	0.0000025	0.0106	0.0154	-	8.72	0.00098	0.000025	7.36	0.000005	37.5	0.181	6.66	0.0001	0.000005	0.00005	0.00005	0.00015	0.00569	0.0069	0.00025	0.0015	0.00033	-	-
BH23-AEX-25	2024-05-03	0.00149	0.00509	2.79	0.00275	0.142	7.04	0.148	0.0000025	0.0838	0.00406	-	4.62	0.00904	0.000335	12.2	0.000005	380	0.18	231	0.0001	0.000043	0.00268	0.00029	0.121	0.00172	0.0148	0.00671	0.0206	0.00332	-	-
BH23-AEX-25	2024-08-21	0.00005	0.00021	0.066	0.000025	0.0199	2.51	0.0551	0.0000025	0.0132	0.00025	-	1.98	0.00088	0.000053	8.03	0.000005	83.9	0.0435	28.3	0.0001	0.000005	0.00005	0.00005	0.00146	0.00102	0.00177	0.00106	0.0005	0.00015	-	-
BH23-AEX-25	2024-10-21	0.00005	0.00075	0.072	0.000025	0.018	3.05	0.083	0.0000025	0.00698	0.00025	-	1.66	0.00065	0.000025	8.64	0.000005	55	0.0415	14.7	0.0001	0.000005	0.00005	0.00005	0.00111	0.00068	0.00128	0.00066	0.0011	0.00015	-	-
BH23-AEX-29	2024-05-03	0.00018	0.00044	0.026	0.000167	0.0074	6.98	0.0448	0.0000025	0.00243	0.00025	-	2.43	0.00283	0.000025	6.83	0.000005	9.67	0.135	5.42	0.0001	0.000005	0.00019	0.00005	0.0018	0.0005	0.00179	0.00025	0.0005	0.00015	-	-
BH23-AEX-29	2024-08-20	0.00014	0.0001	0.005	0.000025	0.0049	7.1	0.0668	0.0000025	0.00151	0.00025	-	2.5	0.00292	0.000025	6.78	0.000013	3.77	0.0888	3.35	0.0001	0.000005	0.00005	0.00005	0.00015	0.0003	0.000317	0.00025	0.0005	0.00015	-	-
BH23-AEX-29	2024-10-21	0.00022	0.0001	0.005	0.000025	0.005	7.1	0.0858	0.0000025	0.00157	0.00025	-	2.48	0.00272	0.000025	7.15	0.000005	4.04	0.13	3.81	0.0001	0.000005	0.00005	0.00005	0.00015	0.00033	0.000456	0.00025	0.0005	0.00015	-	-
BH23-AEX-32G	2024-05-03	0.00024	0.0001	0.161	0.000025	0.011	14.6	0.0576	0.0000025	0.00167	0.00025	-	3.37	0.00226	0.000075	6.99	0.000005	4.56	0.0857	2.22	0.0001	0.000005	0.00005	0.00005	0.00015	0.00027	0.0038	0.00025	0.0005	0.00015	-	-
BH23-AEX-32G	2024-08-19	0.00031	0.00021	0.533	0.000025	0.0104	13.3	0.133	0.0000025	0.00162	0.00025	-	2.95	0.0017	0.000025	7.02	0.000005	4.44	0.0788	2.45	0.0001	0.000005	0.00005	0.00005	0.00015	0.0002	0.00246	0.00025	0.0005	0.00015	-	-
BH23-AEX-32G	2024-10-21	0.00032	0.0001	0.615	0.000025	0.0119	15.9	0.0796	0.0000025	0.00156	0.00025	-	3.48	0.00194	0.000025	7.77	0.000005	4.65	0.0842	2.6	0.0001	0.000005	0.00005	0.00005	0.00015	0.00026	0.00316	0.00025	0.0005	0.00015	-	-
BH23-AEX-39	2024-05-03	0.00005	0.00032	0.095	0.000025	0.0035	5.14	0.127	0.0000025	0.0229	0.00025	-	3.25	0.00101	0.000029	6.36	0.000005	18.8	0.0506	2.48	0.0001	0.000005	0.00005	0.00012	0.00015	0.00846	0.00226	0.00025	0.0005	0.00015	-	-
BH23-AEX-39	2024-08-13	0.00005	0.0001	0.005	0.000025	0.0041	5.09	0.13	0.0000025	0.0167	0.00025	-	3.12	0.00105	0.000079	6.01	0.000014	17	0.0532	2.17	0.0001	0.000005	0.00005	0.00005	0.00015	0.00643	0.00198	0.00025	0.0005	0.00015	-	-
BH23-AEX-39	2024-10-21	0.00011	0.0001	0.157	0.000025	0.0054	5.96	0.151	0.0000025	0.0115	0.00025	-	3.86	0.00103	0.000025	7.77	0.000005	18.5	0.0596	2.42	0.0001	0.000005	0.00005	0.00005	0.00015	0.00582	0.00203	0.00025	0.0005	0.00015	-	-
MW1/22 Deep	2023-05-08	0.00136	0.0001	2.36	0.000025	0.0048	9.7	0.166	0.0000025	0.00119	0.00088	-	2.49	0.00242	0.000025	9.91	0.000005	4.05	0.0774	1.85	0.0001	0.000005	0.00005	0.00005	0.00015	0.0003	0.000055	0.00025	0.0005	0.00015	-	-
MW1/22 Deep	2024-08-25	0.00126	0.0001	2.22	0.000025	0.0037	9.46	0.153	0.0000025	0.00108	0.00065	-	2.38	0.00249	0.000025	9.05	0.000005	3.9	0.0748	1.48	0.0001	0.000005	0.00005	0.00005	0.00015	0.00028	0.000069	0.00025	0.0005	0.00015	-	-
MW1/22 Deep	2024-10-20	0.00125	0.0001	2.32	0.000025	0.0046	9.87	0.153	0.0000025	0.00122	0.00071	-	2.35	0.00232	0.000025	9.85	0.000005	3.98	0.0781	1.54	0.0001	0.000005	0.00005	0.00005	0.00015	0.00027	0.000075	0.00025	0.001	0.00015	-	-
MW10/22 Deep	2024-05-04	0.00012	0.0001	0.197	0.000025	0.0058	7.51	0.0556	0.0000025	0.00209	0.00025	-	3.73	0.00244	0.000025	5.84	0.000005	2.92	0.0615	4.36	0.0001	0.000005	0.00005	0.00005	0.001	0.00016	0.00217	0.00025	0.0005	0.00015	-	-
MW10/22 Deep	2024-08-24	0.00005	0.0001	0.14	0.000025	0.0052	7.02	0.046	0.0000025	0.00218	0.00025	-	3.43	0.00231	0.000025	5.28	0.000005	3.85	0.0669	3.78	0.0001	0.000005	0.00005	0.00005	0.00042	0.0005	0.00235	0.00025	0.0005	0.00015	-	-
MW10/22 Deep	2024-10-23	0.00005	0.00062	0.182	0.000025	0.0062	7.63	0.0452	0.0000025	0.00217	0.00025	-	3.81	0.00234	0.000025	5.99	0.000005	3.01	0.0622	4.7	0.0001	0.000005	0.00005	0.00005	0.0007	0.00017	0.00227	0.00025	0.0005	0.00015	-	-
MW10/22 Intermediate	2024-

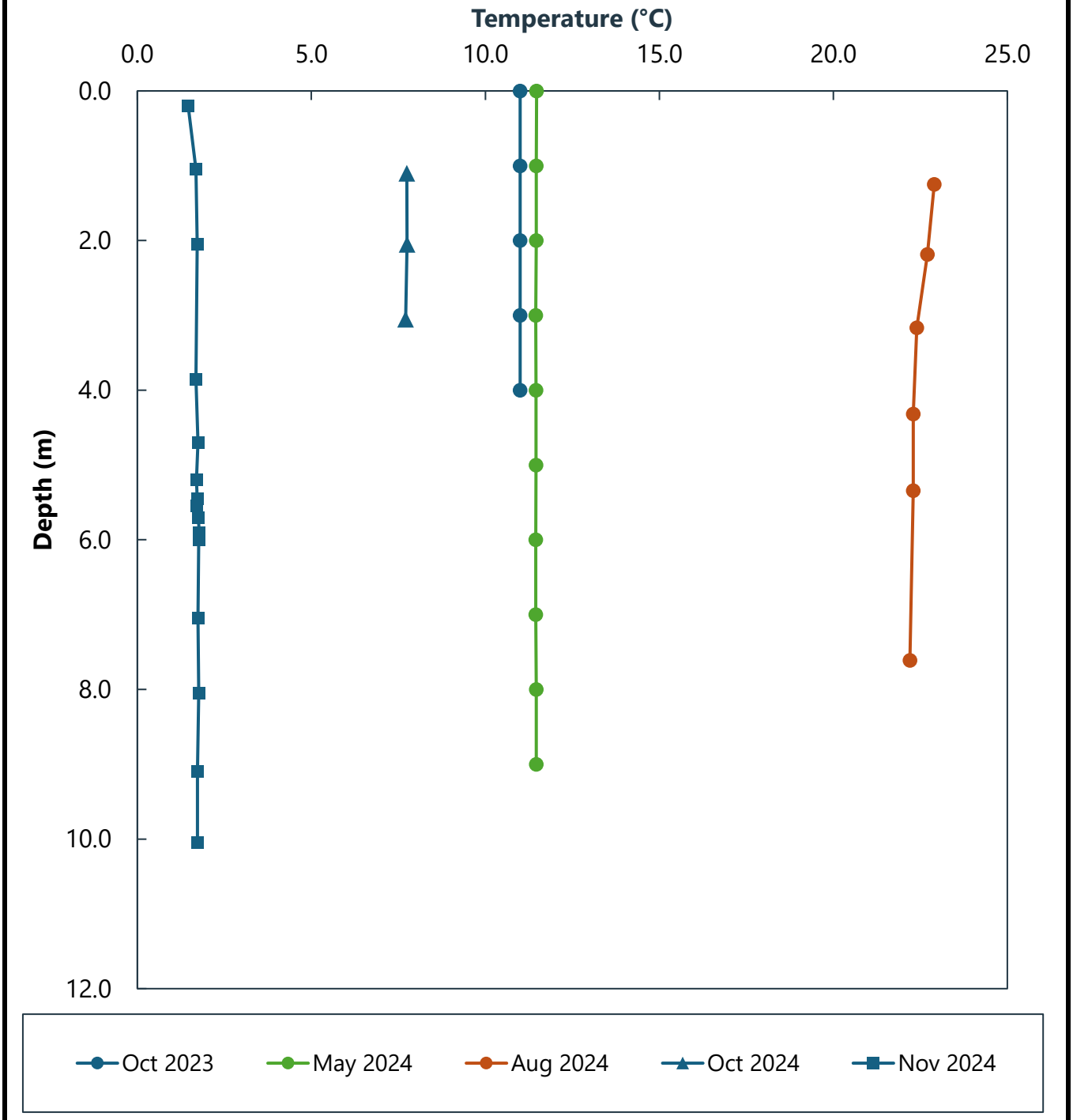
Sample ID	Sample Date / Time	Temp-F (°C)	pH-F (s.u.)	Cond.	Acidity	Alkalinity, bicarbonate (as CaCO3) (mg/L)	Alkalinity, carbonate (as CaCO3) (mg/L)	Alkalinity, hydroxide (as CaCO3) (mg/L)	Alkalinity, phenolphthalein (as CaCO3) (mg/L)	Alk-T (mg/L)	Hardness-D (mg/L)	TDS (mg/L)	TSS (mg/L)	pH-L (s.u.)	NH_3-T (as N) (mg/L)	Cl- (mg/L)	NO_3-N (mg/L)	NO_3-N + NO_2-N (mg/L)	NO_2-N (mg/L)	P-T (by colour) (mg/L)	SO_4 (mg/L)	CN-Free (mg/L)	CN-T (mg/L)	CN-WAD (mg/L)	CN-SAD (mg/L)	Al-D (mg/L)	Sb-D (mg/L)	As-D (mg/L)	Ba-D (mg/L)	Be-D (mg/L)	Bi-D (mg/L)	B-D (mg/L)	Cd-D (mg/L)	Ca-D (mg/L)	Cs-D (mg/L)	Cr-D (mg/L)
MW23-04 Deep	2024-08-26	-	-	594	22.2	345	0.5	0.5	0.5	345	304	352	11.9	8.21	-	0.2	0.0814	0.0828	0.0014	0.0343	6.33	0.0005	-	0.0005	0.0005	0.0013	0.00005	0.00033	0.081	0.00001	0.000025	0.005	0.0000059	73.1	0.000015	0.00005
MW23-04 Deep	2024-10-14	-	-	586	11.4	347	0.5	0.5	0.5	347	305	314	1.6	8.16	-	0.21	0.106	0.106	0.0005	0.0288	6.16	0.0005	-	0.0005	0.0005	0.0012	0.00005	0.00028	0.0702	0.00001	0.000025	0.005	0.0000081	74.3	0.000016	0.00005
MW23-06	2024-05-18	-	-	130	1	63.3	0.5	0.5	0.5	63.3	46.6	158	936	7.63	-	0.99	0.173	0.174	0.0011	0.594	4.14	0.0005	-	0.0005	0.0005	0.154	0.00255	0.00191	0.00273	0.00001	0.000025	0.016	0.0000025	14.8	0.000013	0.00057
MW23-06	2024-08-29	-	-	156	3.7	57.2	0.5	0.5	0.5	57.2	58.1	92.5	109	7.79	-	10.1	0.16	0.16	0.0005	0.0434	2.92	0.0005	-	0.0005	0.0005	0.0132	0.00042	0.00065	0.00516	0.00001	0.000025	0.005	0.0000074	18.3	0.000012	0.00019
MW23-06	2024-11-04	-	-	148	4	65	0.5	0.5	0.5	65	50.1	99.2	214	7.68	-	5.74	0.142	0.143	0.0013	0.214	2.9	0.0005	-	0.0005	0.0005	0.032	0.00243	0.00144	0.00755	0.00001	0.000025	0.012	0.0000025	15.9	0.000005	0.00036
MW23-07	2024-05-05	-	-	210	1	104	0.5	0.5	0.5	104	90	113	30.8	8.13	-	0.51	0.0025	0.00255	0.0005	0.091	9.37	0.0005	-	0.0005	0.0005	0.0342	0.0014	0.00073	0.00468	0.00001	0.000025	0.198	0.0000238	22.5	0.000074	0.00012
MW23-07	2024-08-24	-	-	236	1	104	13.2	0.5	6.6	117	76.3	154	30.5	8.68	-	0.91	0.0025	0.00255	0.0011	0.0764	16.6	0.0011	-	0.0005	0.0005	0.0166	0.0004	0.00075	0.00559	0.00001	0.000025	0.351	0.0000265	19.6	0.000081	0.00005
MW23-07	2024-10-19	-	-	220	1	105	0.5	0.5	0.5	105	84	128	8.5	8.23	-	0.43	0.0165	0.0165	0.0005	0.0157	14.8	0.0005	-	0.0005	0.0005	0.0164	0.00041	0.00042	0.00314	0.00001	0.000025	0.061	0.0000062	21.4	0.000104	0.00005
MW23-08	2024-08-26	-	-	198	17.7	69.8	0.5	0.5	0.5	69.8	84.7	138	26	7.15	-	0.5	0.133	0.133	0.0005	0.0224	27.9	0.0005	-	0.0005	0.0005	0.0255	0.00028	0.00194	0.0266	0.00001	0.000025	0.011	0.000746	26	0.000005	0.00062
MW23-08	2024-10-15	-	-	159	23.3	48.8	0.5	0.5	0.5	48.8	62.1	121	848	7.09	-	0.76	0.119	0.123	0.0043	0.42	26.7	0.0005	-	0.0005	0.0005	0.0264	0.00033	0.00147	0.0294	0.00001	0.000025	0.013	0.000208	18.6	0.000005	0.00025
MW23-09	2024-05-04	-	-	647	25.8	356	0.5	0.5	0.5	356	302	325	11.4	7.47	-	0.58	0.0025	0.00255	0.0005	0.002	19.7	0.0005	-	0.0005	0.0005	0.0021	0.00005	0.00651	0.0884	0.00001	0.000025	0.042	0.0000056	86.7	0.000005	0.00013
MW23-09	2024-08-14	-	-	634	22.5	342	0.5	0.5	0.5	342	269	350	5.1	7.89	-	0.77	0.0025	0.00255	0.0005	0.005	20.5	0.0005	-	0.0005	0.0005	0.0014	0.00005	0.00601	0.0802	0.00001	0.000025	0.039	0.0000025	78.9	0.000005	0.0001
MW23-09	2024-10-15	-	-	607	22.5	335	0.5	0.5	0.5	335	278	360	6.5	8.06	-	0.79	0.0025	0.00255	0.0016	0.001	22	0.0005	-	0.0005	0.0005	0.0005	0.00005	0.00381	0.074	0.00001	0.000025	0.041	0.0000025	80.3	0.000005	0.00005
MW23-10	2024-05-05	-	-	375	1	137	64.8	0.5	32.4	202	42.6	1370	825	9.46	-	4.86	0.0672	0.166	0.0984	1.27	15	0.0005	-	0.0005	0.0005	0.0513	0.0007	0.0329	0.0388	0.0027	0.000217	0.081	0.0000658	10.2	0.000005	0.00045
MW23-10	2024-08-25	-	-	491	1	208	79.2	0.5	39.6	287	2.32	2620	121	9.47	-	1.33	0.131	0.134	0.0034	1.1	10.5	0.0005	-	0.0005	0.0005	0.0192	0.00094	0.0143	0.00122	0.00001	0.000025	0.056	0.0000025	0.629	0.000013	0.00025
MW23-10	2024-10-23	-	-	413	1	233	64	0.5	32	297	2.63	3090	6810	9.33	-	0.79	0.0359	0.0398	0.0039	0.944	8.11	0.0005	-	0.0005	0.0005	0.245	0.00063	0.0105	0.00162	0.00001	0.000025	0.042	0.0000025	0.685	0.000022	0.00033
MW23-11	2024-05-18	-	-	525	1	262	0.5	0.5	0.5	262	251	377	108	7.81	-	0.68	0.0025	0.00255	0.0018	0.0518	17.2	0.0005	-	0.0005	0.0005	0.0031	0.0004	0.00105	0.0373	0.00001	0.000025	0.142	0.0000052	75.2	0.000017	0.00056
MW23-11	2024-08-28	-	-	507	4.8	270	0.5	0.5	0.5	270	231	339	72	8.18	-	0.35	0.0025	0.00255	0.0005	0.0546	16.6	0.005	-	0.005	0.005	0.0067	0.00015	0.00087	0.0346	0.00001	0.000025	0.104	0.0000025	72.3	0.00003	0.00005
MW23-11	2024-10-19	-	-	490	7.7	263	0.5	0.5	0.5	263	227	300	1110	8.11	-	0.54	0.0106	0.0106	0.0005	0.0487	19.2	0.0005	-	0.0005	0.0051	0.0035	0.00018	0.00074	0.036	0.00001	0.000025	0.094	0.0000025	71	0.000018	0.00005
MW23-14	2024-05-18	-	-	243	1	140	0.5	0.5	0.5	140	111	194	69.3	7.59	-	0.18	0.0025	0.00255	0.0005	0.483	0.15	0.0005	-	0.0005	0.0005	0.0143	0.00066	0.00248	0.0344	0.00003	0.000025	0.005	0.0000025	35.1	0.000005	0.00376
MW23-14	2024-08-27	-	-	253	6	144	0.5	0.5	0.5	144	127	175	4.2	7.86	-	0.22	0.0025	0.00255	0.0005	0.0344	0.15	0.0005	-	0.0005	0.0005	0.0122	0.00005	0.00096	0.0217	0.000028	0.000025	0.005	0.0000025	39.6	0.000005	0.00116
MW23-201	2024-10-20	-	-	267	1	126	0.5	0.5	0.5	126	98.3	173	39.9	8.09	-	4.88	0.0025	0.00255	0.0005	0.0361	9.59	0.0005	-	0.0005	0.0005	0.0409	0.00023	0.0017	0.024	0.00001	0.000025	0.017	0.0000025	29.7	0.000005	0.00025
MW24-04	2024-10-20	-	-	320	1	176	0.5	0.5	0.5	176	115	221	44.2	8.27	-	0.57	0.0025	0.00255	0.0005	0.0415	3.9	0.0005	-	0.0005	0.0005	0.018	0.00012	0.00103	0.0049	0.00001	0.000025	0.136	0.0000025	31.5	0.000005	0.00005
MW24-04	2024-10-20	-	-	321	1	173	3.2	0.5	1.6	177	118	224	48.4	8.3	-	0.57	0.0025	0.00255	0.0005	0.0903	3.89	0.0005	-	0.0005	0.0005	0.0179	0.00013	0.00105	0.00483	0.00001	0.000025	0.133	0.0000025	32.3	0.000005	0.00025
MW24-07	2024-10-16	-	-	108	1	50.2	0.5	0.5	0.5	50.2	28.8	87.7	625	7.92	-	0.56	0.0025	0.00255	0.0005	0.179	4.63	0.0005	-	0.0005	0.0005	0.0242	0.0004	0.00124	0.00691	0.00001	0.000025	0.01	0.0000083	8.78	0.000005	0.00005
MW24-08	2024-10-26	-	-	351	6.1	170	0.5	0.5	0.5	170	189	220	56	7.79	-	0.73	0.0285	0.0296	0.0011	0.056	21.8	0.0005	-	0.0005	0.0005	0.0028	0.00015	0.00054	0.0343	0.00001	0.000025	0.02	0.0000163	61.8	0.000005	0.00005
MW24-09	2024-10-23	-	-	594	1	292	26	0.5	13	318	199	3520	6910	8.72	-	1.13	0.0387	0.0406	0.0019	0.574	21.8	0.0005	-	0.0005	0.0005	0.006	0.00048	0.00291	0.0393	0.00001	0.000025	0.103	0.0000116	49.2	0.000022	0.00013
MW24-16	2024-10-26	-	-	360	12	183	0.5	0.5	0.5	183	184	221	32.2	7.36	-	0.26	0.119	0.122	0.0026	0.0331	10.7	0.0005	-	0.0005	0.0005	0.0094	0.00005	0.00048	0.06	0.00001	0.000025	0.005	0.0000108	60.2	0.000005	0.00005
MW3/22	2024-05-11	-	-	101	6.9	47.8	0.5	0.5	0.5	47.8	32.1	77.3	11.7	6.73	-	0.18	0.0523	0.0523	0.0005	0.0035	2.36	0.0005	-	0.0005	0.005	0.0022	0.00005	0.00068	0.0113	0.00001	0.000025	0.005	0.0000212	9.98	0.000005	0.00005
MW3/22	2024-08-25	-	-	114	2.6	56.6	0.5	0.5	0.5	56.6	38.5	78.5	27.9	7.33	-	0.27	0.0413	0.0413	0.0005	0.0079	1.35	0.0005	-	0.0005	0.0005	0.0072	0.00014	0.00037	0.0148	0.00001	0.000025	0.005	0.000009	12.5	0.000005	0.00005
MW3/22	2024-08-25	-	-	121	5.8	60	0.5	0.5	0.5	60	37.7	75.5	85.9	7.44	-	0.28	0.0291	0.0291	0.0005	0.0137	1.14	0.0005	-	0.0005	0.0005	0.0033	0.00014	0.00037	0.0146	0.00001	0.000025	0.005	0.0000114	12.2	0.000005	0.00005
MW3/22	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00005
MW3/22	2024-10-16	-	-	96	7.6	44.9	0.5	0.5	0.5	44.9	30.5	75.3	8.5	7.19	-	0.18	0.0792	0.0792	0.0005	0.0042	2.75	0.0005	-	0.0005	0.0005	0.0025	0.00005	0.00054	0.0145	0.00001	0.000025	0.005	0.0000195	9.6	0.000005	0.00005
MW3/22	2024-10-16	-	-	107	9.3	50.9	0.5	0.5	0.5	50.9	30.6	72.3	8.4	7.29	-	0.19	0.0783	0.0796	0.0013	0.0035	2.74	0.0005	-	0.0005	0.0005	0.0025	0.00012	0.00052	0.0145	0.000026	0.000025	0.005	0.0000194	9.7	0.000005	0.00025
MW4/22 Deep	2024-05-14	-	-	259	1	117	0.5	0.5	0.5	117	115	150	1.3	8.12	-	3.8	0.0025	0.00255	0.0005	0.0119	12	0.0005	-	0.0005	0.0005	0.0023	0.00005	0.00027	0.0164	0.00001	0.000025	0.013	0.0000025	31.8	0.000016	0.00005
MW4/22 Deep	2024-08-21	-	-	267	1	120	0.5	0.5	0.5	120	110	163	9	8.12	-	4.4	0.0025	0.00255	0.0005	0.0126	13.5	0.0005	-	0.0005	0.0005	0.0025	0.00005	0.00024	0.0173	0.00001	0.000025	0.011	0.0000025	30.2	0.000015	0.00005
MW4/22 Deep	2024-10-26	-	-	261	1	118	0.5	0.5	0.5	118	129	152	4.2	8.14	-	4.38	0.0025	0.00255	0.0005	0.0148	13.5	0.0005	-	0.0005	0.0005	0.0025	0.00005	0.00024	0.0171	0.00001	0.000025	0.014	0.0000025	37	0.000018	0.00005
MW4/22 Intermediate	2024-05-15	-	-	234	6.3	127	0.5	0.5	0.5	127	93.4	178	1780	7.2	-	0.19	0.135	0.135	0.0005	2.52	2.24	0.0005	-	0.0005	0.0005	0.0038	0.00048	0.00025	0.011	0.00001	0.000025	0.01	0.0000155	24	0.000005	0.00316
MW4/22 Intermediate	2024-08-26	-	-	247	14.2	134	0.5	0.5	0.5	134	109	154	2750	7.23	-	0.3	0.11	0.11	0.0005	2.36	2.77	0.0005	-	0.0005	0.0005	0.0032	0.00015	0.00023	0.0189	0.00001	0.000025	0.005	0.0000212	27.2	0.000012	0.00175
MW4/22 Intermediate	2024-10-21	-	-	215	1	115	0.5	0.5	0.5	115	103	116	101	7.64	-	0.65	0.121	0.121	0.0005	0.0448	3.01	0.0005	-	0.0005	0.0005	0.0021	0.00045	0.00033	0.0134	0.00001	0.000025	0.005	0.0000025	26.4	0.000005	0.00015
MW7/22 Deep	2024-05-06	-	-	224	1	118	0.5	0.5	0.5	118	116	116	30	8.09	-	0.26	0.0418	0.0418	0.0005	0.0217	4.7	0.0005	-	0.0005	0.0005	0.0023	0.00005	0.00046	0.0155	0.00001	0.000025	0.016	0.0000263	37	0.00002	0.00005
MW7/22 Deep	2024-08-25	-	-	180	4	88.5	0.5	0.5	0.5	88.5	77.3	120	12.9	7.92	-	0.26	0.0344	0.0344	0.0005	0.0091	3.11	0.0005	-	0.0005	0.0005	0.0043	0.00011	0.00052	0.0132	0.00001	0.000025	0.005	0.0000342	24.2	0.000034	0.00005
MW7/22 Deep	2024-08-25	-	-	180	4.2	87.6	0.5	0.5	0.5	87.6	80.6	116	8.4	7.89	-	0.3	0.0427	0.0427	0.0005	0.01	3.04	0.0005	-	0.0005	0.0005	0.0039	0.00011	0.00061	0.0133	0.00001	0.000025	0.005	0.0000253	25.4	0.000032	0.00025
MW7/22 Deep	2024-10-14	-	-	147	2.7	74.2	0.5	0.5	0.5	74.2	64.4	107	51.3	7.96	-	0.3	0.0419	0.0419	0.0005	0.0327	2.7	0.0005	-	0.0005	0.0005	0.0121	0.00005	0.00054	0.0106	0.00001	0.000025	0.005	0.0000397	20.5	0.000028	0.00005
MW7/22 Shallow	2024-05-06	-	-	67.7	6.7	31	0.5	0.5	0.5	31	28.2	48.3	0.5	7.17	-	0.24	0.0585	0.0585	0.0005	0.0043	2.11	0.0005	-	0.0005	0.0005	0.0152	0.00005	0.00027	0.00618	0.00001	0.000025	0.005	0.0000025	8.92	0.000025	0.00014
MW7/22 Shallow	2024-08-25	-	-	69.8	17.9	30	0.5	0.5	0.5	30	27.7	66.8	4.2	6.93	-	0.28	0.0463	0.0463	0.0005	0.0091	2.16	0.0005	-	0.0005	0.0005	0.0141	0.00005	0.00036	0.00633	0.00001	0.000025	0.005	0.0000025	8.81	0.000049	0.00025
MW7/22 Shallow	2024-10-14	-	-	60.1	7.1	27.1	0.5	0.5	0.5	27.1	22.9	58.6	2	7.21	-	0.31	0.0359	0.0359	0.0005	0.0089	2.06	0.0005	-	0.0005	0.0005	0.0168	0.00005	0.00034	0.00535	0.00001	0.000025	0.005	0.0000025	7.13	0.000041	0.00019
MW8/22	2024-05-05	-	-	350	27.6	190	0.5	0.5	0.5	190	180	208	5.1	7.39	-	0.21	0.131	0.132	0.001	0.0067	5.07	0.0005	-	0.0005	0.0005	0.005	0.00005	0.0004	0.0311	0.00001	0.000025	0.005	0.0000081	45.8	0.000023	0.00014
MW8/22	2024-05-05	-	-	349	25	188	0.5	0.5	0.5	188	172	203	3.7	7.19	-	0.2	0.128	0.129	0.0012	0.0092	4.79	0.0005	-	0.0005	0.0005	0.0037	0.00005	0.00038	0.031	0.00001	0.000025	0.005	0.0000119	44.8	0.000026	0.00011
MW8/22	2024-08-25	-	-	421	38.8	225	0.5	0.5	0.5	225	213	262	2.8	7.37	-	0.27	0.164	0.167	0.0026	0.0052	3.95	0.0005	-	0.0005	0.0005	0.0056	0.00005	0.00049	0.039	0.00001	0.000025	0.005	0.000007	55.1	0.000044	0.00013
MW8/22	2024-08-25	-	-	421	38.8	225	0.5	0.5	0.5	225	213	262	2.8	7.37	-	0.27	0.164	0.167	0.0026	0.0052	3.95	0.0005	-	0.0005	0.0005	0.0056	0.00005	0.00049	0.039	0.00001	0.000025	0.005	0.000007	55.1	0.000044	0.00025
MW8/22	2024-10-14	-	-	436	23.7	250	0.5	0.5	0.5	250	215	272	7.3	7.87	-	0.26	0.138	0.14	0.0018	0.0112	4.25	0.0005	-	0.0005	0.0005	0.0035	0.00005	0.00047	0.0407	0.00001	0.000025	0.005	0.0000213	54.8	0.000039	0.0001
MW9/22 Deep	2024-05-08	-	-	304	1	159	1.6	0.5	0.5	160	135	188	24.8	8.3	-	0.53	0.0025	0.00255	0.0005	0.0697	9.99	0.0005	-	0.0005	0.0005	0.0028	0.00005	0.00066	0.0125	0.00001	0.000025	0.005	0.0000025	42.6	0.000005	0.00011
MW9/22 Deep	2024-05-10	-	-	50.8	13.6	22.7	0.5	0.5	0.5	22.7	19	48.6	8.1	6.22	-	0.15	0.0025	0.00255	0.0005	0.0108	0.94	0.0005	-	0.0005	0.0005	0.0932	0.00005	0.00086	0.00716	0.000032	0.000025	0.005	0.0000146	5.88	0.000005	0.00047
MW9/22 Deep	2024-08-18	-	-	274	1	148	4.2	0.5	2.1	152	129	174	0.5	8.34	-	0.25	0.0025	0.00255	0.0005	0.0246	2.43	0.0005	-	0.0005	0.0005	0.0022	0.00005	0.00161	0.013	0.00001	0.000025	0.005	0.0000025	40.7	0.000005	0.00005
MW9/22 Deep	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00005
MW9/22 Deep	2024-10-13	-	-	272	1	148	4.8	0.5	2.4	153	127	170	0.5	8.3	-	0.27	0.0025	0.00255	0.0005	0.0305	2.41	0.0005	-	0.0005	0.0005	0.0026	0.00005	0.0015	0.0124	0.00001	0.000025	0.005	0.0000025	40.1	0.000005	0.00005
MW9/22 Deep	2024-10-13	-	-	275	1	148	5	0.5	2.5	153	130	171	0.5	8.35	-	0.28	0.0025	0.00255	0.0005	0.0282	2.44	0.0005	-	0.0005	0.0005	0.0026	0.00005	0.0015	0.0126	0.00001	0.000025	0.005	0.0000025	40.9	0.000005	0.00025
MW9/22 Shallow	2024-08-17	-	-	45.4	18.4	19.8	0.5	0.5	0.5	19.8	17.3	28.5	3.5	6.81	-	0.12	0.0025	0.00255	0.0005	0.0058	0.88	0.0005	-	0.0005	0.0005	0.0965	0.00005	0.00099	0.00751	0.00003	0.000025	0.005	0.0000243	5.43	0.000005	0.00046
MW9/22 Shallow	2024-10-13	-	-	44.9	15.2	19.7	0.5	0.5	0.5	19.7	17.2	45.5	0.5	6.93	-	0.13	0.0025	0.00255	0.0005	0.0061	0.96	0.0005	-	0.0005	0.0005	0.095	0.00005	0.00099	0.00692	0.000046	0.000025	0.005	0.0000206	5.3	0.000005	0.0004
PTL1MW1/22 Deep	2024-05-03	-	-	227	2.1	118	0.5	0.5	0.5	118	92.9	132	19.2	8.01	-	0.23	0.0537	0.065	0.0113	0.0583	7.44	0.0005	-	0.0005	0.0005	0.0058	0.00005	0.0003	0.00894	0.00001	0.000025	0.036	0.0000025	27.9	0.000013	0.00005
PTL1MW1/22 Deep	2024-08-20	-	-	240	1	121	0.5	0.5	0.5	121	77.3	135	36.3	8.18	-	1.04	0.133	0.136	0.0029	0.0764	7.13	0.0005	-	0.0005	0.0005	0.0123	0.00019	0.00201	0.00989	0.00001	0.000025	0.026	0.0000025	22.6	0.000017	0.00005
PTL1MW1/22 Deep	2024-10-20	-	-	231	1	120	0.5	0.5	0.5	120	83.7	142	35.4	8.2	-	1.22	0.139	0.143	0.004	0.0505	5.01	0.0005	-	0.0005	0.0005	0.0071	0.00014	0.00146	0.011	0.00001	0.000025	0.024	0.0000025	24.7	0.000015	0.00025
PTL1MW2/22	2024-08-13	-	-	299	16.8	159	0.5	0.5	0.5	159	132	198	159	7.69	-	1.65	0.0592	0.0592	0.0005	0.133	4.21	0.0005	-	0.0005	0.0005	0.0023	0.00005	0.00087	0.031	0.00001	0.000025	0.005	0.0000082	48.6	0.000017	0.00005
PTL1MW2/22	2024-10-19	-	-	276	27.3	143	0.5	0.5	0.5	143	131	158	17.6	7.59	-	1.95	0.0882	0.0882	0.0005	0.0209	5.16	0.0005	-	0.0005	0.0005	0.0625	0.00005	0.00082	0.0276	0.00001	0.000025	0.005	0.000006	47.6	0.000024	0.00021
PTL1MW3/22 Deep	2024-05-04	-	-	336	3.6	177	0.5	0.5	0.5	177	166	181	24.8	8.07	-	0.84	0.0774	0.0774	0.0005	0.0201	9.96	0.0005	-	0.0005	0.0005	0.0018	0.00005	0.00028	0.0386	0.00001	0.000025	0.005	0.0000025	46.2	0.000114	0.00005
PTL1MW3/22 Deep	2024-05-04	-	-	337	3.7	178	0.5	0.5	0.5	178	163	179	24.9	7.96	-	0.9	0.087	0.087	0.0005	0.0215	9.83	0.0005	-	0.0005	0.0005	0.0012	0.00005	0.00029	0.0391	0.00001	0.000025	0.005	0.0000025	45.6	0.000109	0.00005
PTL1MW3/22 Deep	2024-08-18	-	-	138	5.8	71.1	0.5	0.5	0.5	71.1	65.7	81.7	5.7	7.82	-	0.17	0.0397	0.0397	0.0005	0.0227	1.56	0.0005	-	0.0005	0.0005	0.0056	0.00005	0.00027	0.0123	0.00001	0.000025	0.005	0.0000025	17.3	0.000005	0.00031
PTL1MW3/22 Deep	2024-10-21	-	-	216	5.8	115	0.5	0.5	0.5	115	102	114	85.4	7.64	-	0.62	0.119	0.119	0.0005	0.0446	3	0.0005	-	0.0005	0.0005	0.0018	0.00043	0.00032	0.0137	0.00001	0.000025	0.005	0.0000025	26.1	0.000005	0.00015
PTL1MW3/22 Deep	2024-10-21	-	-	335	1	176	0.5	0.5	0.5	176	171	164	3.4	8.21	-	0.87	0.0567	0.0567	0.0005	0.0044	11	0.0005	-	0.0005	0.0005	0.0012	0.00005	0.00045	0.037	0.00001	0.000025	0.005	0.0000025	47.9	0.000122	0.00005
PTL1MW4/22 Deep	2024-05-04	-	-	84.4	7.4	40.6	0.5	0.5	0.5	40.6	39.2	44.2	16.9	7.12	-	0.23	0.047	0.047	0.0005	0.0312	1.86	0.0005	-	0.0005	0.0005	0.0094	0.00005	0.00031	0.0123	0.00001	0.000025	0.005

Sample ID	Sample Date / Time	Co-D (mg/L)	Cu-D (mg/L)	Fe-D (mg/L)	Pb-D (mg/L)	Li-D (mg/L)	Mg-D (mg/L)	Mn-D (mg/L)	Hg-D (mg/L)	Mo-D (mg/L)	Ni-D (mg/L)	P-D (mg/L)	K-D (mg/L)	Rb-D (mg/L)	Se-D (mg/L)	Si-D (mg/L)	Ag-D (mg/L)	Na-D (mg/L)	Sr-D (mg/L)	S-D (mg/L)	Te-D (mg/L)	Tl-D (mg/L)	Th-D (mg/L)	Sn-D (mg/L)	Ti-D (mg/L)	W-D (mg/L)	(mg/L)	V-D (mg/L)	Zn-D (mg/L)	Zr-D (mg/L)	MeHg (ng/L)	Low Level Hg (ng/L)
MW23-04 Deep	2024-08-26	0.00444	0.00063	0.144	0.000025	0.0206	29.4	0.0734	0.0000025	0.00446	0.00163	-	5.95	0.00357	0.000559	6.81	0.000005	8.94	0.15	2.37	0.0001	0.000005	0.00005	0.00005	0.00015	0.0454	0.00687	0.00025	0.0018	0.00015	-	-
MW23-04 Deep	2024-10-14	0.00396	0.00083	0.132	0.000025	0.0228	29.1	0.0638	0.0000025	0.00433	0.00146	-	5.99	0.00312	0.000715	7.14	0.000005	9.71	0.143	2.53	0.0001	0.000005	0.00005	0.00005	0.00015	0.0281	0.00698	0.00025	0.0016	0.00015	-	-
MW23-06	2024-05-18	0.00016	0.00043	0.078	0.000114	0.0033	2.33	0.0214	0.0000025	0.00472	0.00025	-	1.53	0.00099	0.000131	5.64	0.000005	8.3	0.0356	1.95	0.0001	0.000005	0.0001	0.00019	0.00425	0.0052	0.00182	0.00189	0.0052	0.00015	-	-
MW23-06	2024-08-29	0.0006	0.00101	0.005	0.000025	0.0031	3.01	0.00958	0.0000025	0.00186	0.00025	-	1.46	0.00103	0.000084	6.24	0.000005	6.38	0.0384	1.13	0.0001	0.000005	0.00005	0.00005	0.00048	0.00669	0.00109	0.00088	0.0017	0.00015	-	-
MW23-06	2024-11-04	0.00052	0.00248	0.033	0.000074	0.0017	2.53	0.0304	0.0000025	0.00292	0.00052	-	1.45	0.00094	0.000099	5.91	0.000005	8.92	0.0388	1.04	0.0001	0.000005	0.00005	0.0001	0.00088	0.00543	0.00138	0.00112	0.0022	0.00015	-	-
MW23-07	2024-05-05	0.00252	0.00124	0.022	0.000025	0.0512	8.21	0.0208	0.0000025	0.0745	0.00447	-	3.19	0.00338	0.000025	4.14	0.000005	10.4	0.1	3.49	0.0001	0.000005	0.00005	0.00029	0.00015	0.53	0.00322	0.002	0.0013	0.00015	-	-
MW23-07	2024-08-24	0.00154	0.00047	0.024	0.000025	0.04	6.65	0.0252	0.0000025	0.0983	0.00228	-	3.5	0.00391	0.000025	4.5	0.000005	19.2	0.111	5.29	0.0001	0.000005	0.00005	0.00015	0.00015	1.01	0.00295	0.00073	0.0005	0.00015	-	-
MW23-07	2024-10-19	0.0072	0.00037	0.005	0.000025	0.0171	7.43	0.0481	0.0000025	0.0231	0.00439	-	2.81	0.00261	0.000082	5.98	0.000005	7.86	0.122	4.06	0.0001	0.000005	0.00005	0.00005	0.00015	0.245	0.00543	0.00126	0.0005	0.00015	-	-
MW23-08	2024-08-26	0.00697	0.0175	0.614	0.000025	0.0013	4.8	0.122	0.0000025	0.00124	0.0349	-	1.43	0.0011	0.000284	7.65	0.000024	3.75	0.0453	8.47	0.0001	0.000005	0.00005	0.00034	0.00015	0.0864	0.0001	0.00025	0.0312	0.00015	-	-
MW23-08	2024-10-15	0.00422	0.00708	1.2	0.000025	0.0014	3.81	0.218	0.0000025	0.00147	0.0195	-	1.36	0.00142	0.000428	8.3	0.000015	4.23	0.0384	9.31	0.0001	0.000005	0.00005	0.00005	0.00048	0.0448	0.00007	0.00068	0.0138	0.00015	-	-
MW23-09	2024-05-04	0.0165	0.0001	3.6	0.000025	0.0132	20.8	2.76	0.0000025	0.00756	0.00318	-	6.92	0.00115	0.000025	9.03	0.000005	23.8	0.241	7.44	0.0001	0.000005	0.00005	0.00005	0.00015	0.00798	0.00506	0.00025	0.0005	0.00032	-	-
MW23-09	2024-08-14	0.0167	0.00024	2.17	0.000025	0.012	17.5	2	0.0000025	0.00651	0.00453	-	6.4	0.0011	0.000025	7.36	0.000005	21.9	0.207	6.77	0.0001	0.000005	0.00005	0.00005	0.00015	0.00829	0.00623	0.00025	0.0005	0.00015	-	-
MW23-09	2024-10-15	0.0158	0.0001	0.005	0.000025	0.0137	18.7	1.76	0.0000025	0.0063	0.00402	-	7.13	0.00102	0.000025	7.97	0.000005	24.4	0.193	8.2	0.0001	0.000005	0.00005	0.00005	0.00015	0.00687	0.00679	0.00025	0.0005	0.00015	-	-
MW23-10	2024-05-05	0.00228	0.0106	0.211	0.00822	0.0131	4.16	0.146	0.0000025	0.0329	0.00714	-	2.09	0.00331	0.000025	8.35	0.000005	127	0.0873	7.68	0.0001	0.000031	0.00034	0.00005	0.00288	0.106	0.0168	0.00802	0.0294	0.00056	-	-
MW23-10	2024-08-25	0.00005	0.00025	0.013	0.000074	0.005	0.181	0.0018	0.0000025	0.0146	0.00068	-	1.18	0.00055	0.000295	6.22	0.000035	102	0.00606	3.82	0.0001	0.000005	0.00005	0.00005	0.00036	0.0736	0.00849	0.00119	0.0005	0.00015	-	-
MW23-10	2024-10-23	0.00005	0.00448	0.094	0.000182	0.0051	0.224	0.00456	0.0000025	0.00945	0.00114	-	2.28	0.00085	0.000124	6.49	0.000011	82.4	0.00332	2.73	0.0001	0.000005	0.00018	0.00005	0.00567	0.0582	0.00436	0.00331	0.0005	0.00048	-	-
MW23-11	2024-05-18	0.013	0.00021	0.019	0.000025	0.0024	15.4	2.8	0.0000025	0.0163	0.0081	-	0.717	0.00053	0.000025	9.07	0.000005	22.2	0.187	6.66	0.0001	0.000005	0.00005	0.00015	0.00015	0.0115	0.00039	0.00025	0.0055	0.00015	-	-
MW23-11	2024-08-28	0.0113	0.00068	0.079	0.000025	0.0012	12.2	1.36	0.0000025	0.00982	0.00891	-	0.501	0.00052	0.000025	8.4	0.000005	17.5	0.156	6.14	0.0001	0.000005	0.00005	0.00005	0.00015	0.00814	0.000266	0.00025	0.0021	0.00015	-	-
MW23-11	2024-10-19	0.0084	0.0001	0.09	0.000025	0.0005	12	1.09	0.0000025	0.0064	0.011	-	0.376	0.00036	0.000025	8.83	0.000005	16.1	0.161	6.55	0.0001	0.000005	0.00005	0.00005	0.00015	0.00486	0.000376	0.00025	0.0011	0.00015	-	-
MW23-14	2024-05-18	0.00044	0.00135	1.02	0.000071	0.0035	5.62	0.139	0.0000025	0.00421	0.00144	-	1.48	0.00236	0.000105	6.69	0.000005	8.74	0.0651	2.19	0.0001	0.000005	0.0001	0.00089	0.00384	0.00044	0.000767	0.00386	0.0054	0.00131	-	-
MW23-14	2024-08-27	0.00005	0.0001	2.81	0.000025	0.003	6.74	0.152	0.0000025	0.000275	0.00025	-	1.2	0.00107	0.000025	7.8	0.000005	2.45	0.0582	0.25	0.0001	0.000005	0.00015	0.00005	0.00767	0.00015	0.000071	0.00607	0.0005	0.00178	-	-
MW23-201	2024-10-20	0.00024	0.00119	0.121	0.000025	0.0027	5.86	1.09	0.0000025	0.00854	0.00094	-	0.89	0.00075	0.000146	5.78	0.000005	15.8	0.114	3.46	0.0001	0.000005	0.00005	0.00039	0.00062	0.00227	0.000386	0.00069	0.0012	0.00015	-	-
MW24-04	2024-10-20	0.00033	0.0001	0.066	0.000025	0.003	8.79	0.144	0.0000025	0.00325	0.00187	-	3.29	0.00051	0.000025	9.97	0.000005	23.7	0.206	1.31	0.0001	0.000005	0.00005	0.00062	0.00042	0.00782	0.00155	0.00064	0.0014	0.00015	-	-
MW24-04	2024-10-20	0.00036	0.0001	0.068	0.000025	0.0028	9.08	0.146	0.0000025	0.00337	0.00186	-	3.35	0.00047	0.000058	9.76	0.000005	24.8	0.212	1.44	0.0001	0.000005	0.00005	0.00064	0.0005	0.00785	0.00154	0.00063	0.0013	0.00015	-	-
MW24-07	2024-10-16	0.00061	0.00126	0.02	0.000025	0.001	1.67	0.217	0.0000025	0.0149	0.00147	-	1.35	0.00092	0.000157	3.33	0.000005	7.28	0.0401	1.33	0.0001	0.000005	0.00005	0.00005	0.00015	0.0169	0.000186	0.00025	0.0011	0.00015	-	-
MW24-08	2024-10-26	0.00416	0.00096	0.051	0.000025	0.011	8.48	0.451	0.0000025	0.00408	0.0023	-	4	0.00316	0.000138	5.94	0.000005	7.88	0.162	7.09	0.0001	0.000014	0.00005	0.00005	0.00015	0.0018	0.0176	0.00025	0.0018	0.00015	-	-
MW24-09	2024-10-23	0.00062	0.00387	0.021	0.000025	0.0137	18.4	0.231	0.0000025	0.00732	0.0016	-	4.62	0.00317	0.000218	11.5	0.000005	68.9	0.605	3.18	0.0001	0.000005	0.00005	0.00005	0.00038	0.00187	0.00444	0.00105	0.0018	0.00059	-	-
MW24-16	2024-10-26	0.00041	0.0081	0.036	0.000025	0.004	8.1	0.0663	0.0000025	0.00402	0.00238	-	3.55	0.0011	0.000408	7.48	0.000005	3.02	0.149	3.75	0.0001	0.000005	0.00005	0.00005	0.00015	0.00265	0.00142	0.00025	0.0005	0.00015	-	-
MW3/22	2024-05-11	0.00795	0.00048	2.48	0.000025	0.0022	1.74	0.363	0.0000025	0.000528	0.123	-	1.36	0.00071	0.00009	7.78	0.000005	2.71	0.0314	0.66	0.0001	0.000005	0.00005	0.00005	0.00015	0.00712	0.000071	0.00025	0.0005	0.00015	-	-
MW3/22	2024-08-25	0.00582	0.00119	4.3	0.000025	0.0019	1.76	0.681	0.0000025	0.000409	0.0416	-	2.3	0.00124	0.000025	10.1	0.000005	5.74	0.0372	0.51	0.0001	0.000005	0.00005	0.00005	0.00015	0.00817	0.00005	0.00025	0.0036	0.00015	-	-
MW3/22	2024-08-25	0.00577	0.00054	4.21	0.000025	0.0018	1.75	0.68	0.0000025	0.000398	0.042	-	2.25	0.00126	0.000025	10.1	0.000005	5.62	0.0378	0.55	0.0001	0.000005	0.00005	0.00005	0.00015	0.00846	0.000053	0.00025	0.0019	0.00015	-	-
MW3/22	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	0.0113	0.00055	3.64	0.000025	0.0018	1.59	0.394	0.0000025	0.000452	0.158	-	1.96	0.00134	0.000025	9.85	0.000005	3.22	0.0329	0.9	0.0001	0.000005	0.00005	0.00005	0.00015	0.013	0.000047	0.00025	0.0011	0.00015	-	-
MW3/22	2024-10-16	0.011	0.00061	3.68	0.000025	0.0022	1.55	0.42	0.0000025	0.000465	0.144	-	1.92	0.00131	0.000174	10.2	0.000005	3.26	0.0318	0.85	0.0001	0.00001	0.00005	0.00005	0.00015	0.0128	0.000049	0.00025	0.0016	0.00015	-	-
MW4/22 Deep	2024-05-14	0.00005	0.0001	0.328	0.000025	0.0044	8.64	0.0571	0.0000025	0.00276	0.00025	-	2.18	0.00123	0.000025	6.41	0.000005	5.21	0.0615	4.42	0.0001	0.000005	0.00005	0.00005	0.00015	0.00033	0.00023	0.00025	0.0005	0.00015	-	-
MW4/22 Deep	2024-08-21	0.00005	0.0001	0.286	0.000025	0.0029	8.42	0.0541	0.0000025	0.00274	0.00025	-	2.39	0.00121	0.000025	5.9	0.000005	5.08	0.063	4.17	0.0001	0.000005	0.00005	0.00005	0.00015	0.00032	0.0001	0.00025	0.0005	0.00015	-	-
MW4/22 Deep	2024-10-26	0.00005	0.0001	0.335	0.000025	0.0032	8.97	0.0554	0.0000025	0.0029	0.00025	-	2.24	0.0012	0.000025	6.43	0.000005	5.06	0.0647	4.57	0.0001	0.000005	0.00005	0.00005	0.00015	0.00035	0.000114	0.00025	0.0005	0.00015	-	-
MW4/22 Intermediate	2024-05-15	0.0082	0.0025	0.019	0.000025	0.0045	8.13	0.262	0.0000025	0.00558	0.00583	-	3.04	0.0019	0.000153	6.98	0.000005	9.85	0.123	1.06	0.0001	0.000005	0.00005	0.00005	0.00015	0.00736	0.000763	0.00025	0.0023	0.00015	-	-
MW4/22 Intermediate	2024-08-26	0.0126	0.00204	0.013	0.000025	0.0045	9.88	0.404	0.0000025	0.00349	0.00685	-	3.07	0.00232	0.000212	6.8	0.000005	7.7	0.125	1.01	0.0001	0.000012	0.00005	0.00005	0.00015	0.00748	0.000975	0.00025	0.0018	0.00015	-	-
MW4/22 Intermediate	2024-10-21	0.00343	0.00188	0.005	0.000025	0.005	8.91	0.045	0.0000025	0.00314	0.00573	-	3	0.00193	0.000085	7.05	0.000005	5.42	0.0937	1.24	0.0001	0.000005	0.00005	0.00005	0.00015	0.00525	0.000691	0.00025	0.0022	0.00015	-	-
MW7/22 Deep	2024-05-06	0.00032	0.0223	0.005	0.000025	0.0037	5.75	0.0352	0.0000025	0.00157	0.00264	-	1.84	0.00135	0.000126	6.74	0.000014	4.57	0.142	2.27	0.0001	0.000005	0.00005	0.00005	0.00015	0.545	0.00055	0.00056	0.0051	0.00015	-	-
MW7/22 Deep	2024-08-25	0.00031	0.0277	0.005	0.000025	0.0026	4.1	0.0398	0.0000025	0.00169	0.00234	-	1.79	0.00172	0.000107	7.41	0.000045	3.55	0.106	1.18	0.0001	0.000005	0.00005	0.00005	0.00015	0.49	0.000422	0.00077	0.005	0.00015	-	-
MW7/22 Deep	2024-08-25	0.00032	0.0302	0.005	0.000025	0.0027	4.16	0.0413	0.0000025	0.00183	0.00246	-	1.78	0.0017	0.000068	7.83	0.000049	3.73	0.107	1.24	0.0001	0.000005	0.00005	0.00005	0.00015	0.529	0.000436	0.00073	0.0046	0.00015	-	-
MW7/22 Deep	2024-10-14	0.00034	0.0282	0.024	0.000025	0.003	3.22	0.0379	0.0000025	0.00136	0.00226	-	1.61	0.00145	0.000119	8.57	0.000128	3.13	0.0847	1.04	0.0001	0.000005	0.00005	0.00005	0.00015	0.376	0.00032	0.00075	0.006	0.00015	-	-
MW7/22 Shallow	2024-05-06	0.00005	0.00294	0.005	0.000025	0.0021	1.45	0.00068	0.0000025	0.0013	0.00127	-	0.464	0.00123	0.000206	8.17	0.000005	2.08	0.0251	0.93	0.0001	0.000005	0.00005	0.00005	0.00015	0.00276	0.000063	0.00025	0.0014	0.00015	-	-
MW7/22 Shallow	2024-08-25	0.00005	0.00274	0.005	0.000025	0.002	1.39	0.00055	0.0000025	0.000603	0.00101	-	0.603	0.00171	0.000127	9.1	0.000018	2.54	0.0254	0.97	0.0001	0.000014	0.00005	0.00005	0.00015	0.00514	0.000066	0.00066	0.0005	0.00015	-	-
MW7/22 Shallow	2024-10-14	0.00005	0.00265	0.005	0.000025	0.0022	1.23	0.0005	0.0000025	0.000568	0.00099	-	0.537	0.00138	0.000144	9.36	0.000005	2.53	0.0219	0.74	0.0001	0.000013	0.00005	0.00005	0.00036	0.00398	0.000064	0.00062	0.0005	0.00015	-	-
MW8/22	2024-05-05	0.00045	0.00631	0.017	0.000025	0.0117	16	0.047	0.0000025	0.00114	0.00269	-	2.2	0.00267	0.000025	11.3	0.000005	5.3	0.0563	1.87	0.0001	0.000011	0.00005	0.00005	0.00015	0.00005	0.000565	0.00075	0.0012	0.00015	-	-
MW8/22	2024-05-05	0.00043	0.00608	0.015	0.000025	0.0088	14.6	0.047	0.0000025	0.00116	0.00264	-	2.13	0.00294	0.000025	10.3	0.000005	4.46	0.0564	1.82	0.0001	0.000013	0.00005	0.00005	0.00015	0.00005	0.000622	0.0007	0.0005	0.00015	-	-
MW8/22	2024-08-25	0.00066	0.008	0.018	0.000025	0.013	18.3	0.0612	0.0000025	0.00134	0.00376	-	2.43	0.0037	0.000064	11.6	0.000005	6.07	0.0714	1.82	0.0001	0.000017	0.00005	0.00005	0.00015	0.00023	0.000835	0.00114	0.0005	0.00015	-	-
MW8/22	2024-08-25	0.00066	0.008	0.018	0.000025	0.013	18.3	0.0612	0.0000025	0.00134	0.00376	-	2.43	0.0037	0.000064	11.6	0.000005	6.07	0.0714	1.82	0.0001	0.000017	0.00005	0.00005	0.00015	0.00023	0.000835	0.00114	0.0005	0.00015	-	-
MW8/22	2024-10-14	0.00079	0.00756	0.03	0.000025	0.0131	18.9	0.105	0.0000025	0.00146	0.00399	-	2.64	0.00359	0.000025	12.2	0.000005	6.27	0.0712	1.8	0.0001	0.000017	0.00005	0.00005	0.00015	0.00022	0.00112	0.00118	0.0017	0.00015	-	-
MW9/22 Deep	2024-05-08	0.00005	0.0001	0.646	0.000025	0.0058	6.89	0.125	0.0000025	0.00313	0.00025	-	2.73	0.00166	0.000025	6.33	0.000005	13.3	0.0774	4.06	0.0001	0.000005	0.00005	0.00005	0.00015	0.00791	0.00021	0.00025	0.0005	0.00015	-	-
MW9/22 Deep	2024-05-10	0.00425	0.0017	2.32	0.000148	0.0005	1.05	0.271	0.000008	0.000164	0.00073	-	0.683	0.00357	0.000025	7.84	0.000005	1.61	0.0364	0.25	0.0001	0.000027	0.00055	0.00005	0.00457	0.00005	0.000236	0.00092	0.0022	0.00086	-	-
MW9/22 Deep	2024-08-18	0.00005	0.0001	0.707	0.000025	0.005	6.63	0.104	0.0000025	0.00125	0.00025	-	2.68	0.00159	0.000025	6.59	0.000005	6.51	0.0761	1.12	0.0001	0.000005	0.00005	0.00005	0.00015	0.00362	0.000716	0.00025	0.0005	0.00015	-	-
MW9/22 Deep	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Deep	2024-10-13	0.00005	0.0001	0.79	0.000025	0.0059	6.54	0.102	0.0000025	0.00168	0.00025	-	2.79	0.00152	0.000025	6.74	0.000005	6	0.0738	0.9	0.0001	0.000005	0.00005	0.00005	0.00015	0.00354	0.00067	0.00025	0.0005	0.00015	-	-
MW9/22 Deep	2024-10-13	0.00005	0.0001	0.755	0.000025	0.0064	6.65	0.102	0.0000025	0.00167	0.00025	-	2.75	0.00158	0.000089	6.88	0.000005	6.02	0.0752	0.97	0.0001	0.000005	0.00005	0.00005	0.00015	0.00357	0.000706	0.00025	0.0005	0.00015	-	-
MW9/22 Shallow	2024-08-17	0.00458	0.00212	2.24	0.000174	0.0005	0.919	0.289	0.0000095	0.000092	0.00064	-	0.657	0.00347	0.000025	7.41	0.000005	1.38	0.0327	0.25	0.0001	0.000026	0.0006	0.00005	0.00435	0.00005	0.000286	0.00101	0.0017	0.00095	-	-
MW9/22 Shallow	2024-10-13	0.00463	0.00207	2.3	0.000168	0.0005	0.971	0.291	0.0000095	0.000128	0.00064	-	0.666	0.00316	0.000052	7.6	0.000005	1.38	0.0326	0.25	0.00023	0.000032	0.00071	0.00005	0.00434	0.00005	0.000296	0.00098	0.0015	0.00091	-	-
PTL1MW1/22 Deep	2024-05-03	0.00049	0.00047	0.135	0.000025	0.0037	5.65	0.0796	0.0000025	0.00146	0.00025	-	4.09	0.00281	0.000025	6.48	0.000005	10.7	0.113	2.86	0.0001	0.000005	0.00005	0.00011	0.00015	0.00296	0.000317	0.00025	0.0014	0.00015	-	-
PTL1MW1/22 Deep	2024-08-20	0.00082	0.00072	0.101	0.000025	0.0035	5.06	0.107	0.0000025	0.005	0.00065	-	4.1	0.00279	0.000025	5.52	0.000025	16.7	0.11	2.51	0.0001	0.000005	0.00005	0.00005	0.00015	0.00816	0.000795	0.00056	0.0023	0.00015	-	-
PTL1MW1/22 Deep	2024-10-20	0.00136	0.0001	0.01	0.000025	0.0037	5.35	0.135	0.0000025	0.006	0.00065	-	3.76	0.00264	0.000063	5.43	0.000005	13.8	0.115	1.91	0.0001	0.000005	0.00005	0.00005	0.00015	0.00668	0.000973	0.00025	0.0005	0.00015	-	-
PTL1MW2/22	2024-08-13	0.00013	0.00174	0.005	0.000025	0.005	2.67	0.0742	0.0000025	0.000614	0.00077	-	3.58	0.00198	0.000025	10	0.000005	3.98	0.059	1.67	0.0001	0.000012	0.00005	0.00005	0.00015	0.00005	0.00043	0.00025	0.0024	0.00015	-	-
PTL1MW2/22	2024-10-19	0.0012	0.00205	0.074	0.000104	0.006	2.86	0.0221	0.0000025	0.000634	0.00076	-	3.31	0.00134	0.000025	11.3	0.000005	3.77	0.0591	1.75	0.0001	0.00001	0.00005	0.00005	0.00322	0.00005	0.000401	0.00062	0.0013	0.00015	-	-
PTL1MW3/22 Deep	2024-05-04	0.00136	0.00048	0.072	0.000025	0.0105	12.2	0.0442	0.0000025	0.0039	0.00431	-	4.82	0.00504	0.000473	6.02	0.000005	4.12	0.0711	3.83	0.0001	0.000005	0.00005	0.00005	0.00015	0.361	0.0041	0.00025	0.0005	0.00015	-	-
PTL1MW3/22 Deep	2024-05-04	0.00136	0.00028	0.071	0.000025	0.0106	12	0.0436	0.0000025	0.00414	0.00434	-	4.67	0.00494	0.000459	6.14	0.000005	4.18	0.0754	3.94	0.0001	0.000005	0.00005	0.00005	0.00015	0.372	0.00415	0.00025	0.0005	0.00015	-	-
PTL1MW3/22 Deep	2024-08-18	0.00005	0.00055	0.005	0.000025	0.0026	5.47	0.00097	0.0000025	0.000131	0.00025	-	0.848	0.00169	0.0001	9.1	0.000005	2.43	0.0294	0.68	0.0001	0.000005	0.00005	0.00005	0.00015	0.00329	0.00019	0.00025	0.0014	0.00015	-	-
PTL1MW3/22 Deep	2024-10-21	0.00353	0.00213	0.005	0.000025	0.005	8.99	0.0448	0.0000025	0.00305	0.006	-	2.98	0.00189	0.000124	6.93	0.000005	5.35	0.0912	1.23	0.0001	0.000005	0.00005	0.00005	0.00015	0.00521	0.0007	0.00025	0.0024	0.00015	-	-
PTL1MW3/22 Deep	2024-10-21	0.00094	0.00067	0.106	0.000025	0.0104	12.6	0.0338	0.0000025	0.00355	0.00312	-	4.66	0.00433	0.000163	6.53	0.000005	4.15	0.0758	4.35	0.0001	0.000005	0.00005	0.00005	0.00015	0.196	0.00349	0.00025	0.0005	0.00015	-	-
PTL1MW4/22 Deep	2024-05-04	0.00005	0.00154	0.005	0.000025	0.0005	3.34	0.00209	0.0000025	0.000247	0.00077	-	0.86	0.00162	0.000099	8.11	0.000005	2.17	0.0342	0.82	0.0001	0.000005	0.00005	0.00005	0.00015	0.011	0.000085	0.00025	0.0011	0.00015	-	-
PTL1MW4/22 Deep	2024-08-17	0.00081	0.00034	0.092	0.000025	0.0089	12	0.0322	0.0000025	0.00336	0.00228	-	4.4	0.00423	0.000203	5.97	0.000005	3.91	0.0754	3.86	0.0001	0.00001	0.00005	0.00005	0.00015	0.102	0.0033	0.00025	0.0005	0.00015	-	-
PTL1MW4/22 Deep	2024-10-19	0.00005	0.00254	0.04	0.000025	0.0019	7.58	0.0219	0.0000025	0.000517	0.00187	-	0.672	0.00115	0.000178	11.2	0.000005	6.38	0.0791	1.06	0.0001	0.000005	0.00011	0.00005	0.00128	0.00216	0.000642	0.00072	0.0014	0.00054	-	-
AEX Potable Well	2024-10-29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

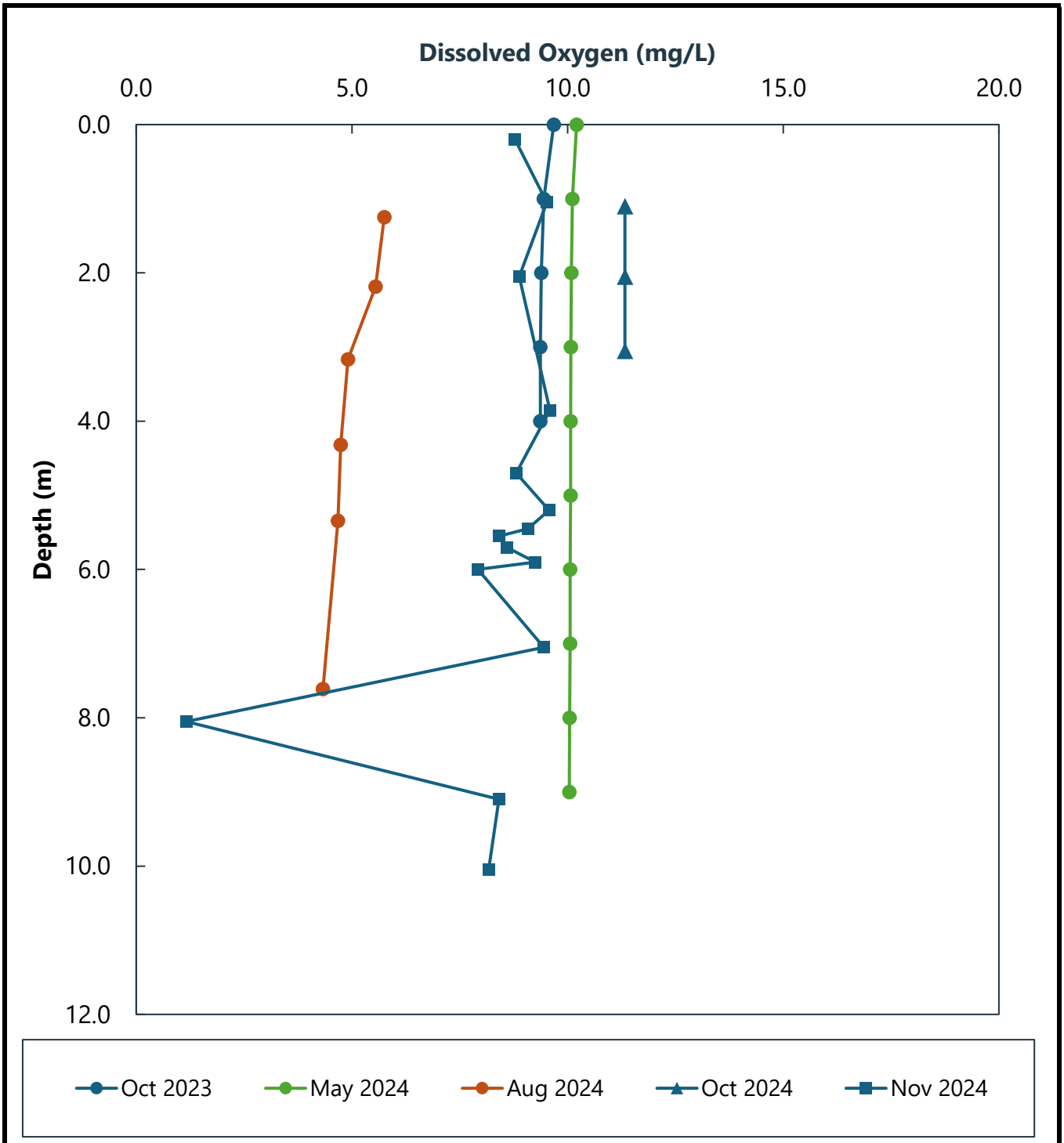
Sample ID	Sample Date / Time	Temp-F (°C)	pH-F (s.u.)	Cond.	Acidity	Alkalinity, bicarbonate (as CaCO3) (mg/L)	Alkalinity, carbonate (as CaCO3) (mg/L)	Alkalinity, hydroxide (as CaCO3) (mg/L)	Alkalinity, phenolphthalein (as CaCO3) (mg/L)	Alk-T (mg/L)	Hardness-D (mg/L)	TDS (mg/L)	TSS (mg/L)	pH-L (s.u.)	NH_3-T (as N) (mg/L)	Cl- (mg/L)	NO_3-N (mg/L)	NO_3-N + NO_2-N (mg/L)	NO_2-N (mg/L)	P-T (by colour) (mg/L)	SO_4 (mg/L)	CN-Free (mg/L)	CN-T (mg/L)	CN-WAD (mg/L)	CN-SAD (mg/L)	Al-D (mg/L)	Sb-D (mg/L)	As-D (mg/L)	Ba-D (mg/L)	Be-D (mg/L)	Bi-D (mg/L)	B-D (mg/L)	Cd-D (mg/L)	Ca-D (mg/L)	Cs-D (mg/L)	Cr-D (mg/L)
BH23-AEX-39	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW1/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Deep	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Intermediate	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW10/22 Intermediate	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11/22 Deep	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11/22 Deep	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11/22 Shallow	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW11/22 Shallow	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW12/22 Deep	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW12/22 Deep	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW12/22 Intermediate	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW12/22 Intermediate	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2/22 Deep	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW2/22 Deep	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-02 Deep	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-02 Deep	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-02 Shallow	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-02 Shallow	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-04 Deep	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-04 Deep	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-06	2024-11-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-06	2024-11-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-07	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-07	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-07	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-07	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-08	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-08	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-09	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-09	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-10	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-11	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-11	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-14	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-201	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-201	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-202	2024-10-28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW23-202	2024-10-28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-04	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-04	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-08	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-08	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-09	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-16	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW24-16	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW3/22	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW4/22 Deep	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW4/22 Deep	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW4/22 Intermediate	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW4/22 Intermediate	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW7/22 Deep	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW7/22 Deep	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW7/22 Shallow	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW7/22 Shallow	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW8/22	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW8/22	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Deep	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Deep	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW9/22 Shallow	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PTL1MW1/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PTL1MW1/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PTL1MW2/22	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PTL1MW2/22	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PTL1MW3/22 Deep	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PTL1MW3/22 Deep	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PTL1MW4/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PTL1MW4/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample ID	Sample Date / Time	Co-D (mg/L)	Cu-D (mg/L)	Fe-D (mg/L)	Pb-D (mg/L)	Li-D (mg/L)	Mg-D (mg/L)	Mn-D (mg/L)	Hg-D (mg/L)	Mo-D (mg/L)	Ni-D (mg/L)	P-D (mg/L)	K-D (mg/L)	Rb-D (mg/L)	Se-D (mg/L)	Si-D (mg/L)	Ag-D (mg/L)	Na-D (mg/L)	Sr-D (mg/L)	S-D (mg/L)	Te-D (mg/L)	Tl-D (mg/L)	Th-D (mg/L)	Sn-D (mg/L)	Ti-D (mg/L)	W-D (mg/L)	(mg/L)	V-D (mg/L)	Zn-D (mg/L)	Zr-D (mg/L)	MeHg (ng/L)	Low Level Hg (ng/L)
BH23-AEX-39	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.01	-
MW1/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12
MW1/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW10/22 Deep	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.034	-
MW10/22 Deep	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.11
MW10/22 Deep	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.037	-
MW10/22 Intermediate	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.96
MW10/22 Intermediate	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
MW11/22 Deep	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.06
MW11/22 Deep	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW11/22 Shallow	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33
MW11/22 Shallow	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW12/22 Deep	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.27
MW12/22 Deep	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.007	-
MW12/22 Intermediate	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65
MW12/22 Intermediate	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW2/22 Deep	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.72
MW2/22 Deep	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.004	-
MW23-02 Deep	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24
MW23-02 Deep	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.008	-
MW23-02 Shallow	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.52
MW23-02 Shallow	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.067	-
MW23-04 Deep	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16
MW23-04 Deep	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW23-06	2024-11-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.83
MW23-06	2024-11-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.075	-
MW23-07	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.3
MW23-07	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.105	-
MW23-07	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1
MW23-07	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW23-08	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.9
MW23-08	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.796	-
MW23-09	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12
MW23-09	2024-10-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW23-10	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65	-
MW23-10	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61.6
MW23-10	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.751	-
MW23-11	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.59
MW23-11	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.285	-
MW23-14	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.006	-
MW23-14	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.95
MW23-14	2024-10-22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.006	-
MW23-201	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.76
MW23-201	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.122	-
MW23-202	2024-10-28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.01
MW23-202	2024-10-28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.012	-
MW24-04	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33
MW24-04	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW24-08	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.72
MW24-08	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.019	-
MW24-09	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.5
MW24-09	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.9
MW24-09	2024-10-23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.252	-
MW24-16	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
MW24-16	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.011	-
MW3/22	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.42
MW3/22	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.46
MW3/22	2024-10-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.004	-
MW4/22 Deep	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16
MW4/22 Deep	2024-10-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW4/22 Intermediate	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.8
MW4/22 Intermediate	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.018	-
MW7/22 Deep	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.29
MW7/22 Deep	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.009	-
MW7/22 Shallow	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.56
MW7/22 Shallow	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW8/22	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.98
MW8/22	2024-10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00175	-
MW9/22 Deep	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31
MW9/22 Deep	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.006	-
MW9/22 Shallow	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.4
MW9/22 Shallow	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
MW9/22 Shallow	2024-10-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.021	-
PTL1MW1/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1
PTL1MW1/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.026	-
PTL1MW2/22	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4
PTL1MW2/22	2024-10-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.008	-
PTL1MW3/22 Deep	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1
PTL1MW3/22 Deep	2024-10-21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.004	-
PTL1MW4/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.43
PTL1MW4/22 Deep	2024-10-20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.036	-

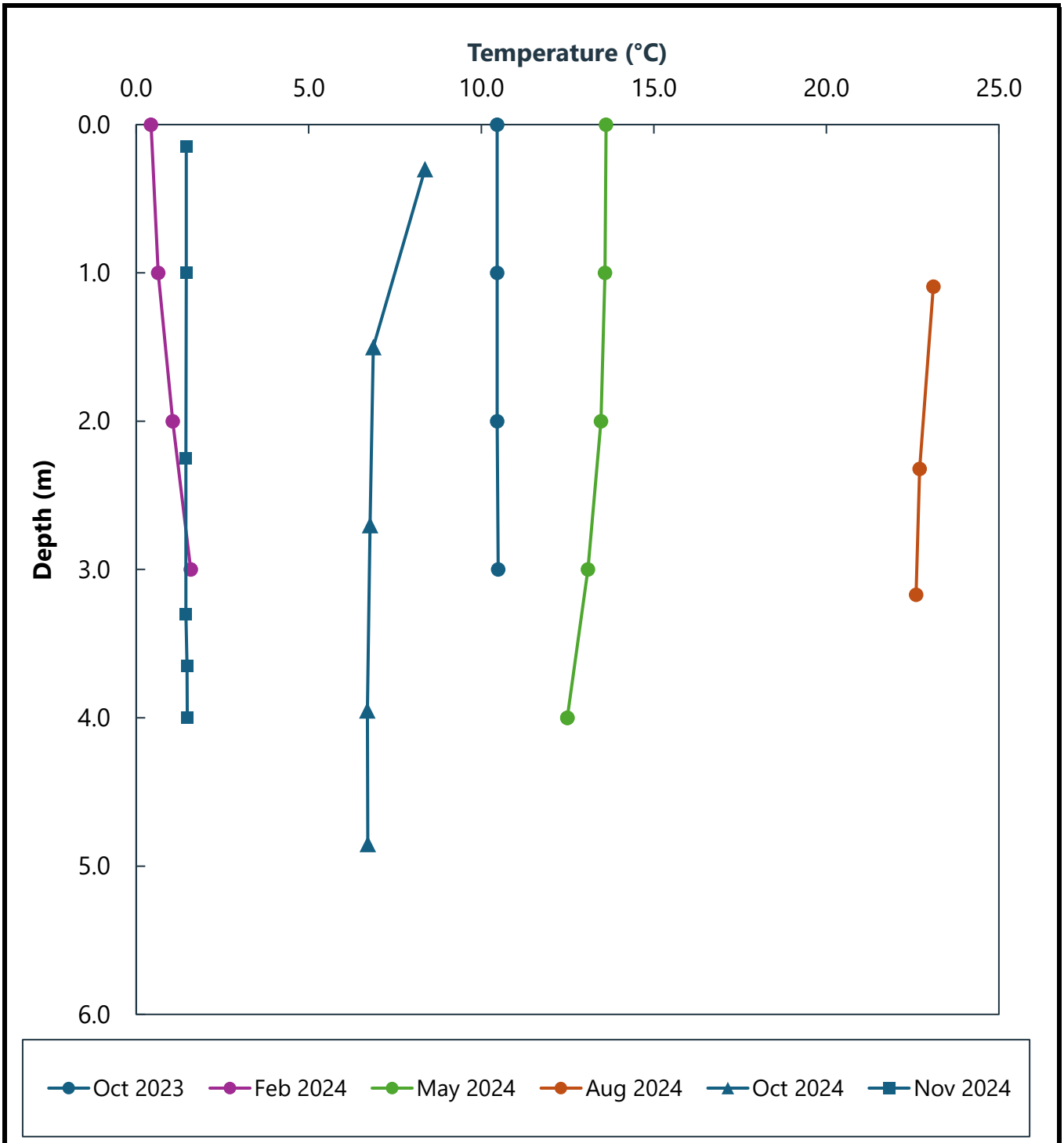
Appendix F
Lake Profiles



	PL-01 Temperature Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-1



	PL-01 Dissolved Oxygen Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-2



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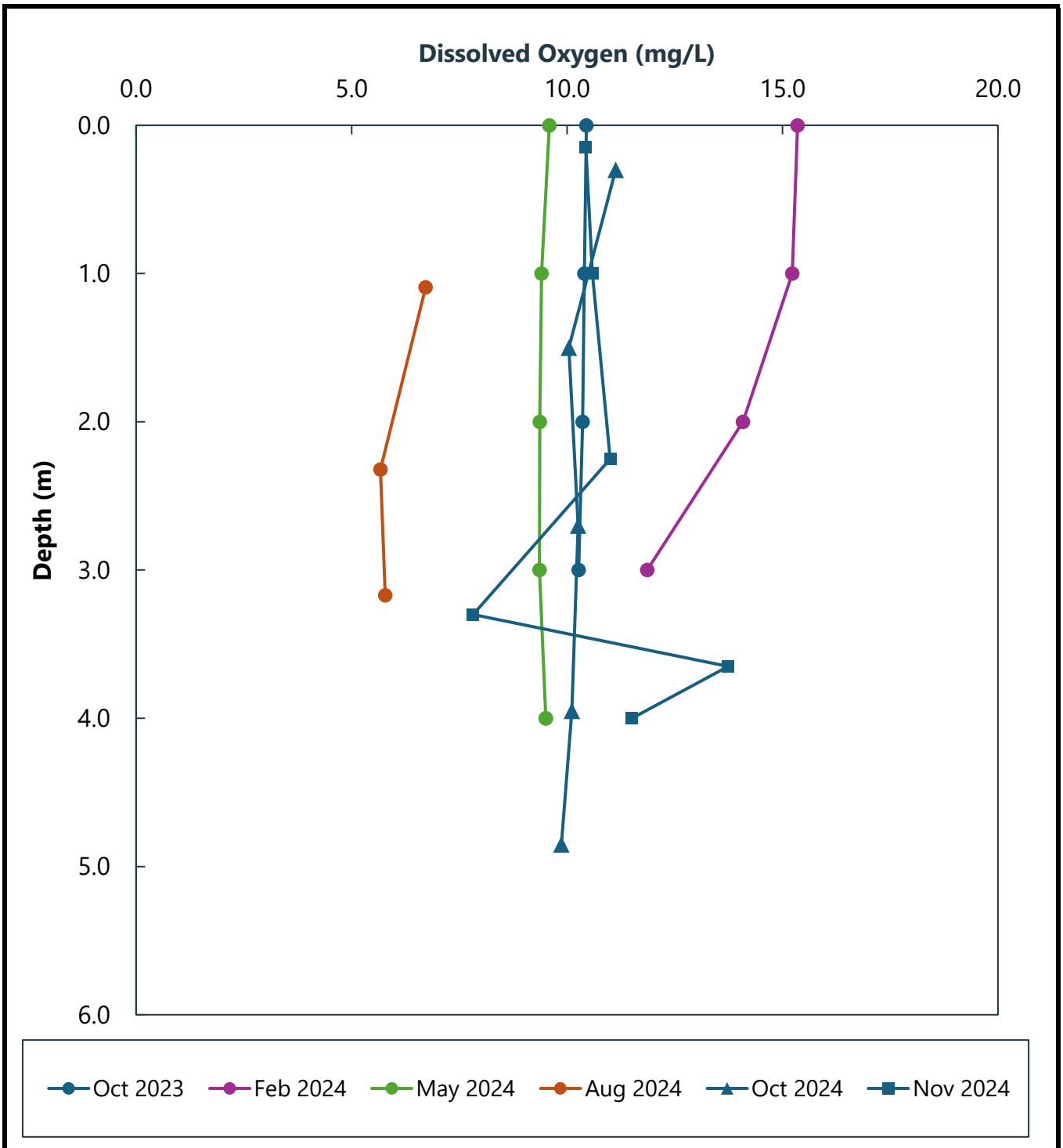
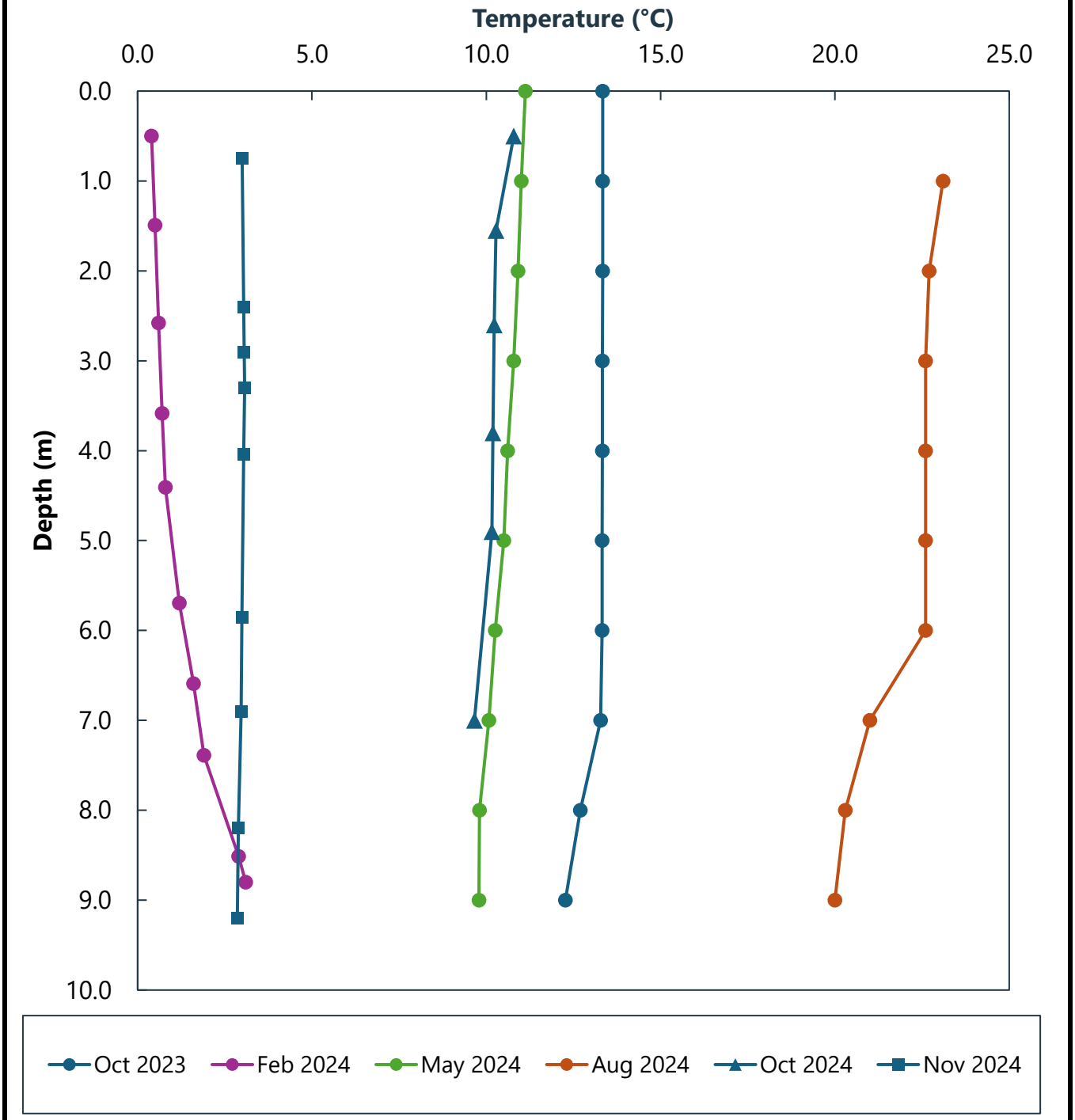
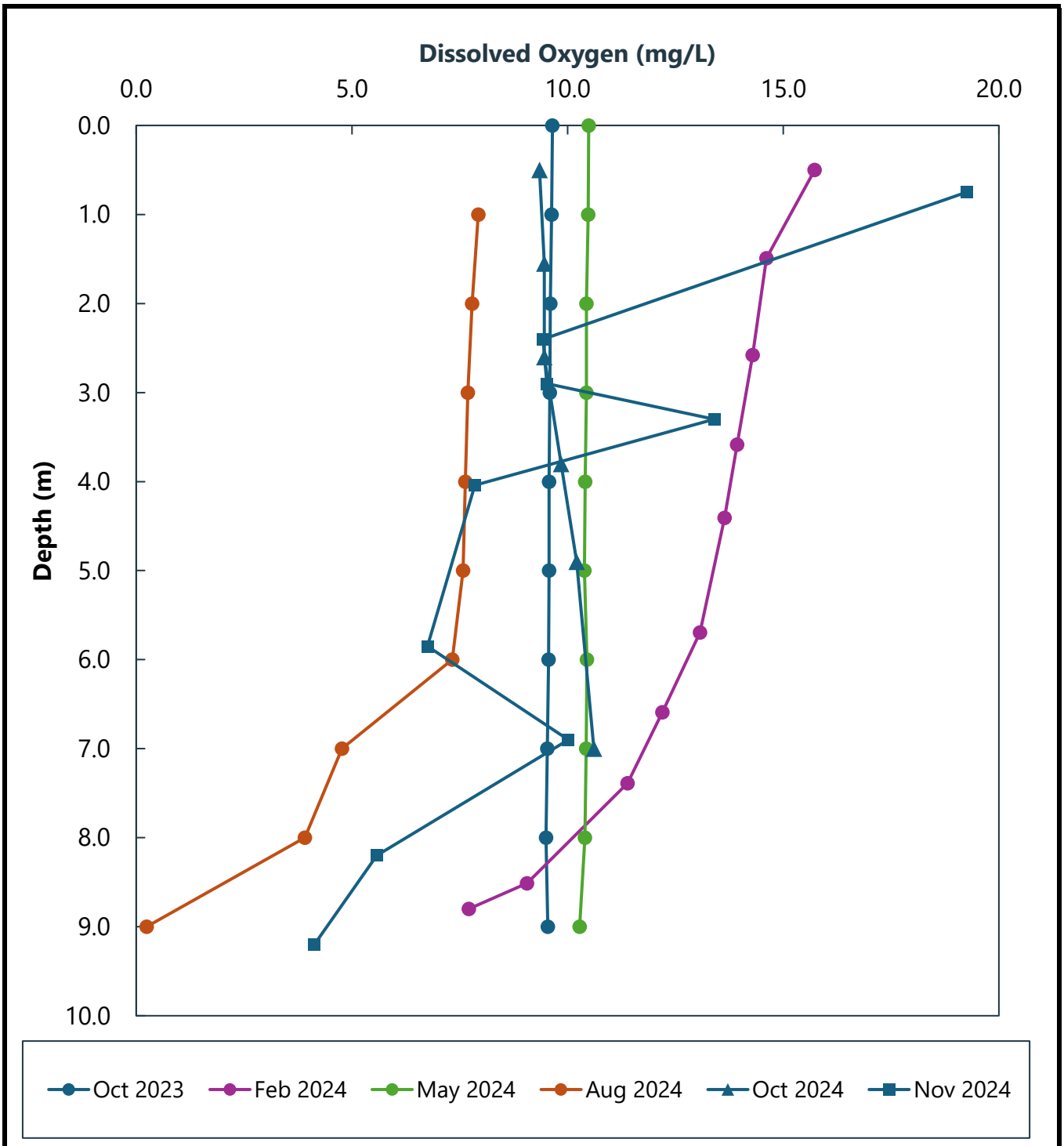
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-3



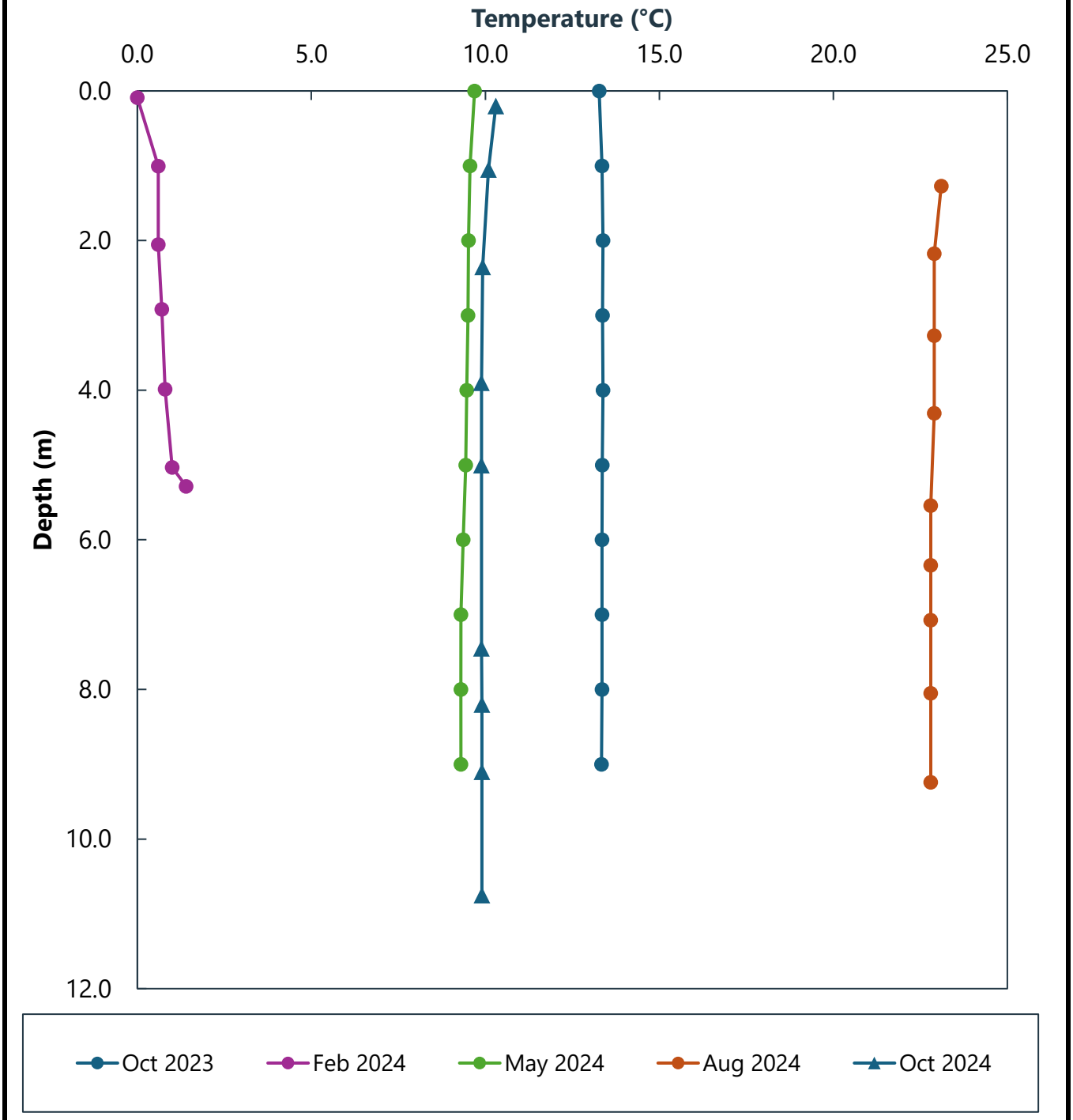
	PL-02 Temperature Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-4



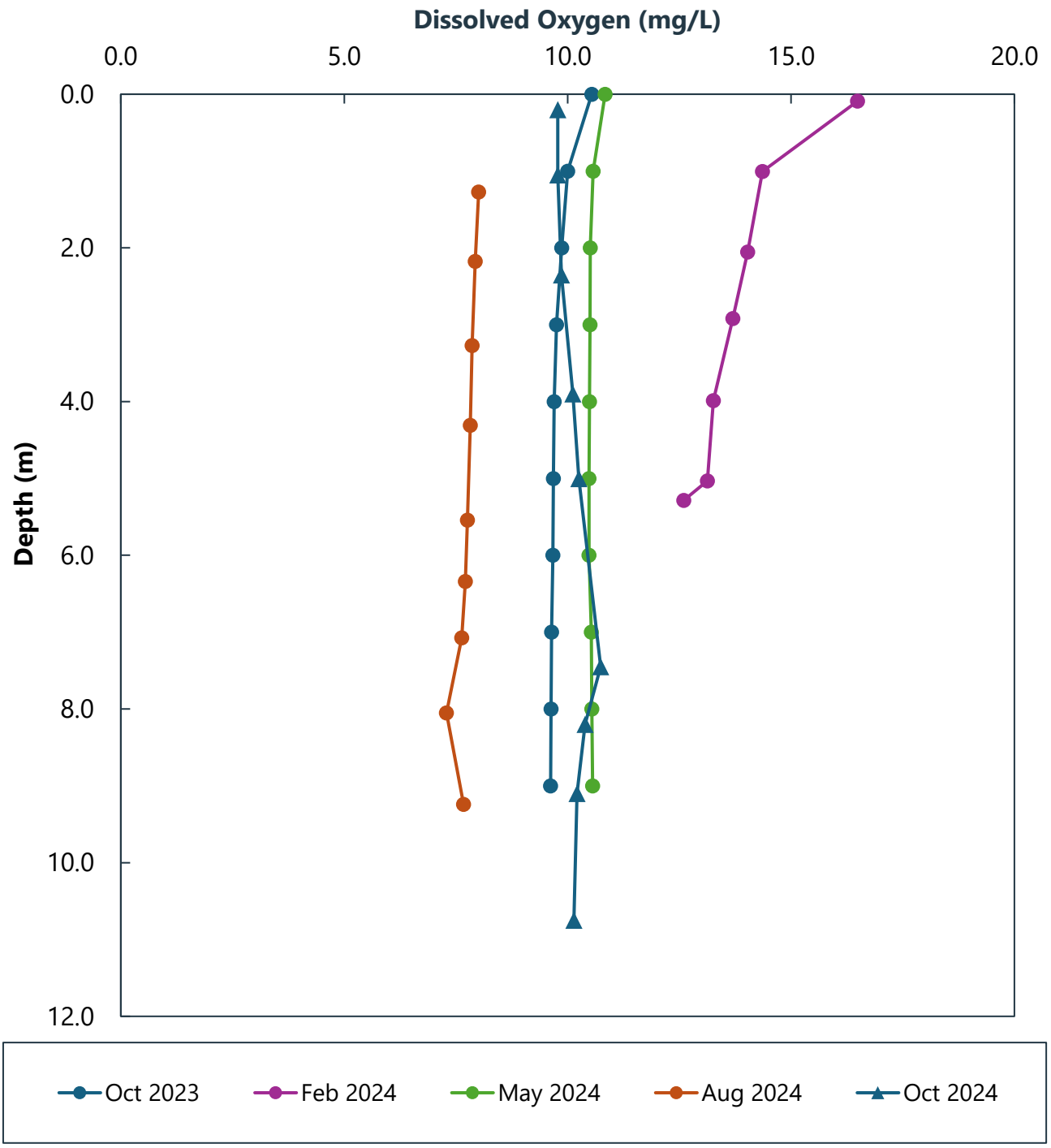
	PL-03 Temperature Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-5



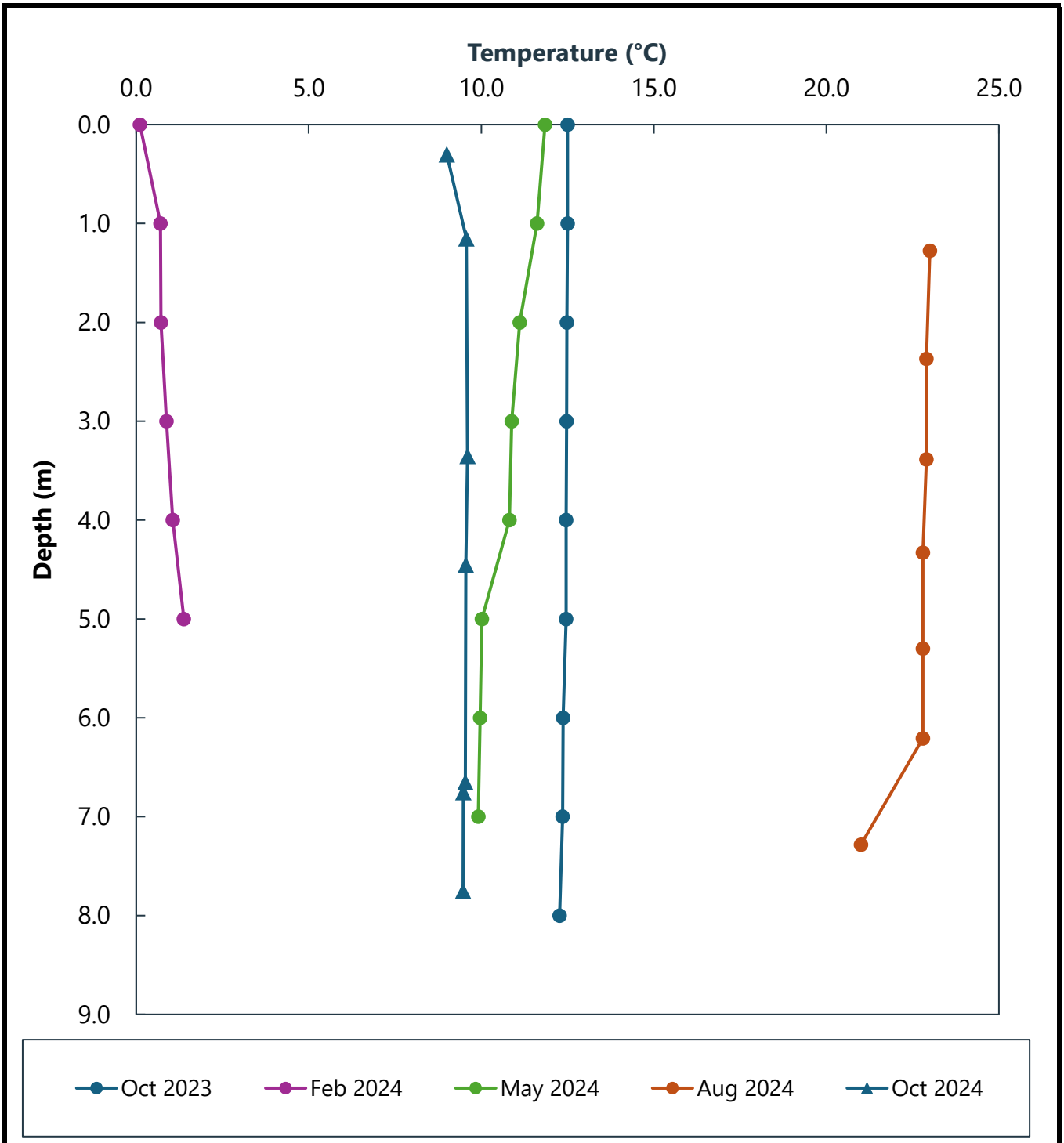
	PL-03 Dissolved Oxygen Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-6



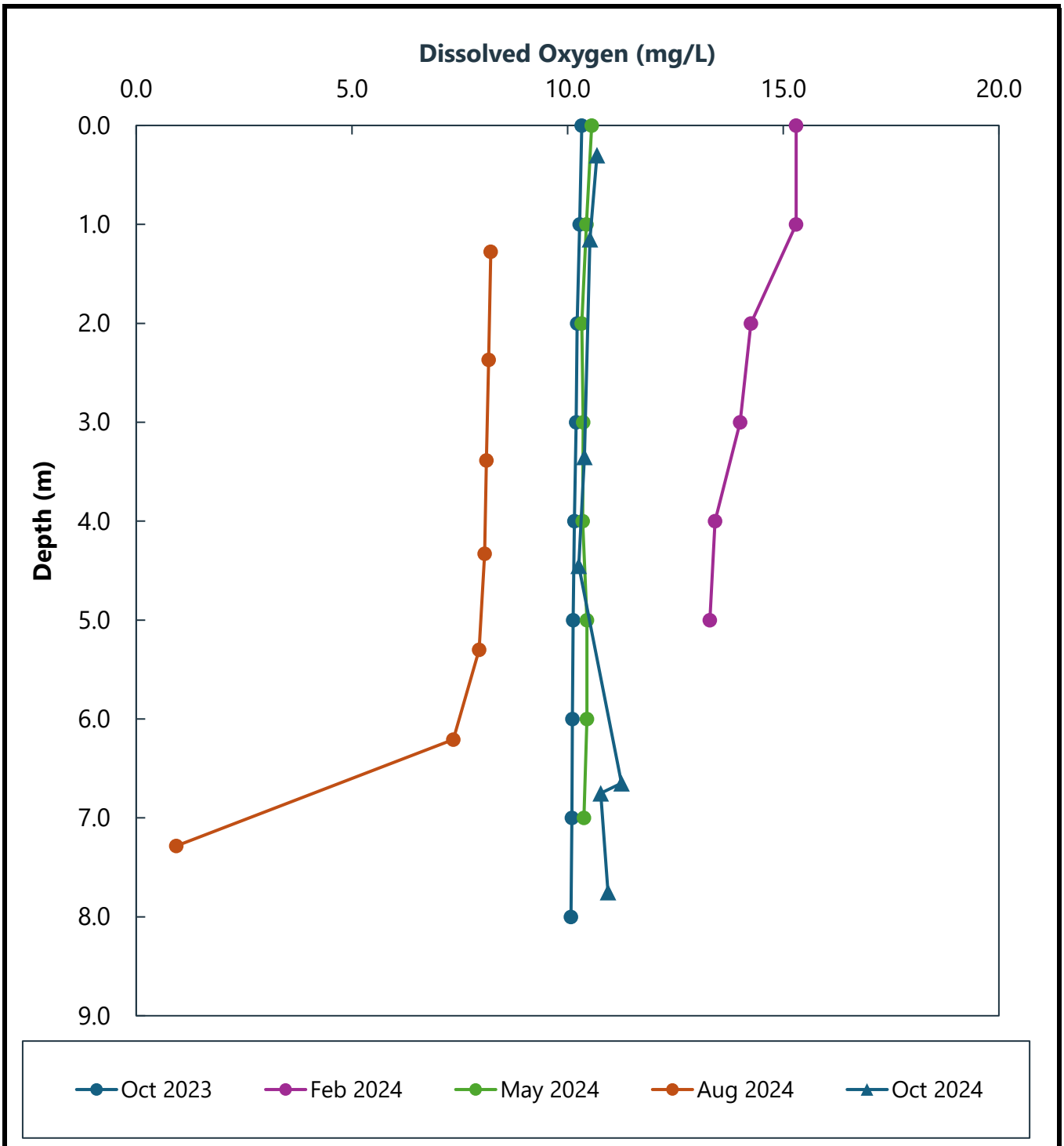
	PL-04 Temperature Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-7



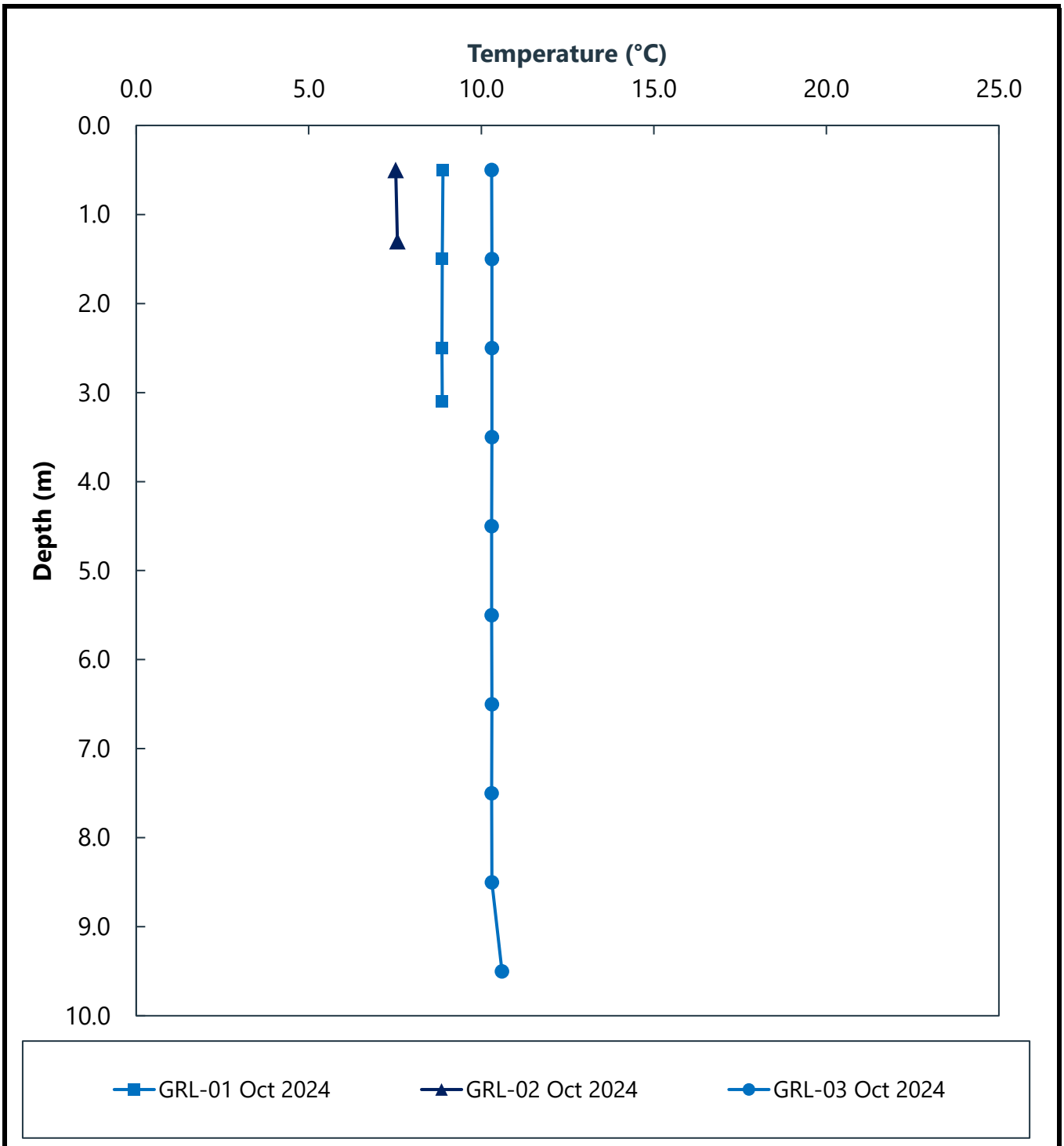
	PL-04 Temperature Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-8



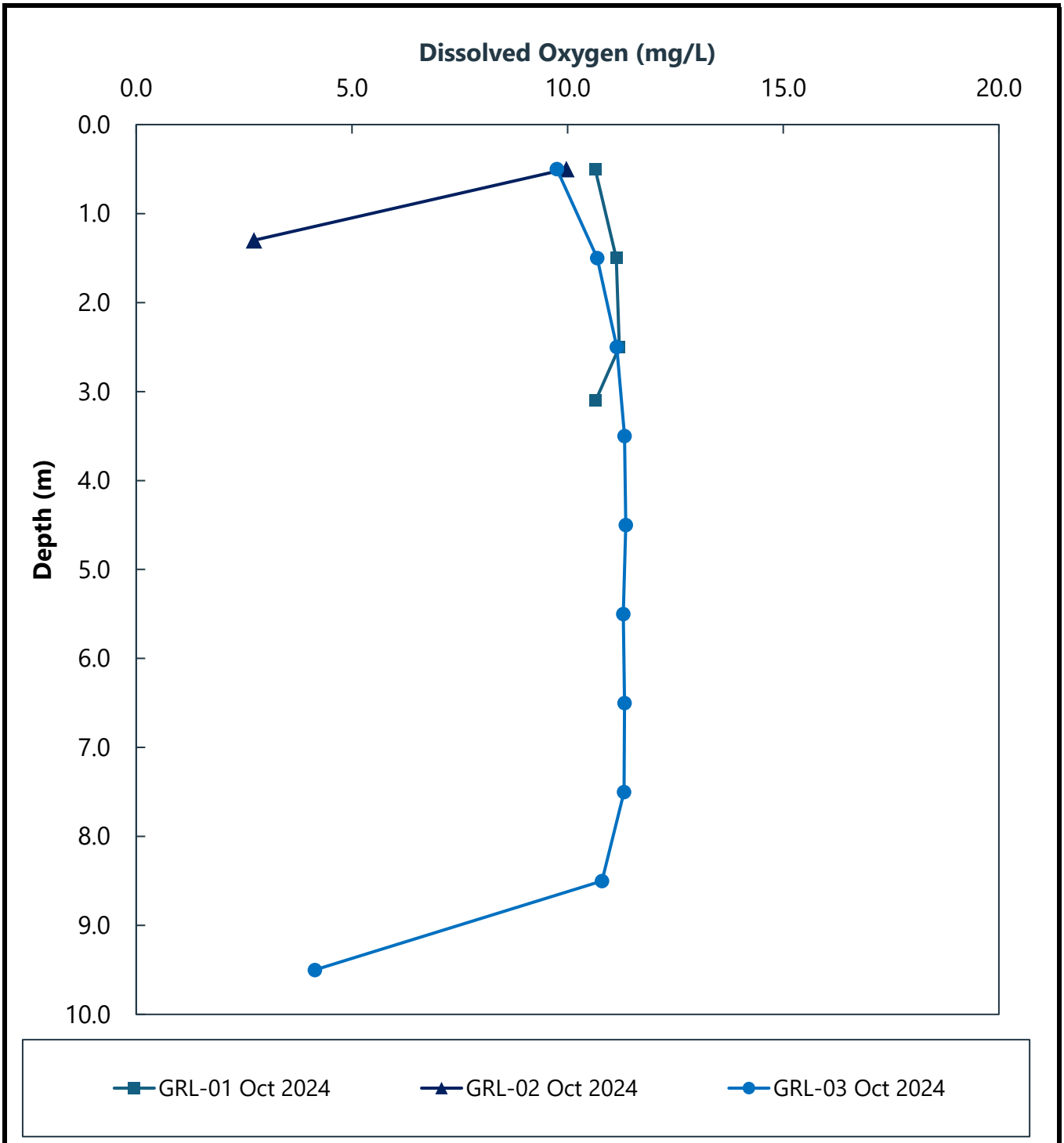
	PL-05 Temperature Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-9



	PL-05 Dissolved Oxygen Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-10



	Gullrock Lake Temperature Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-11

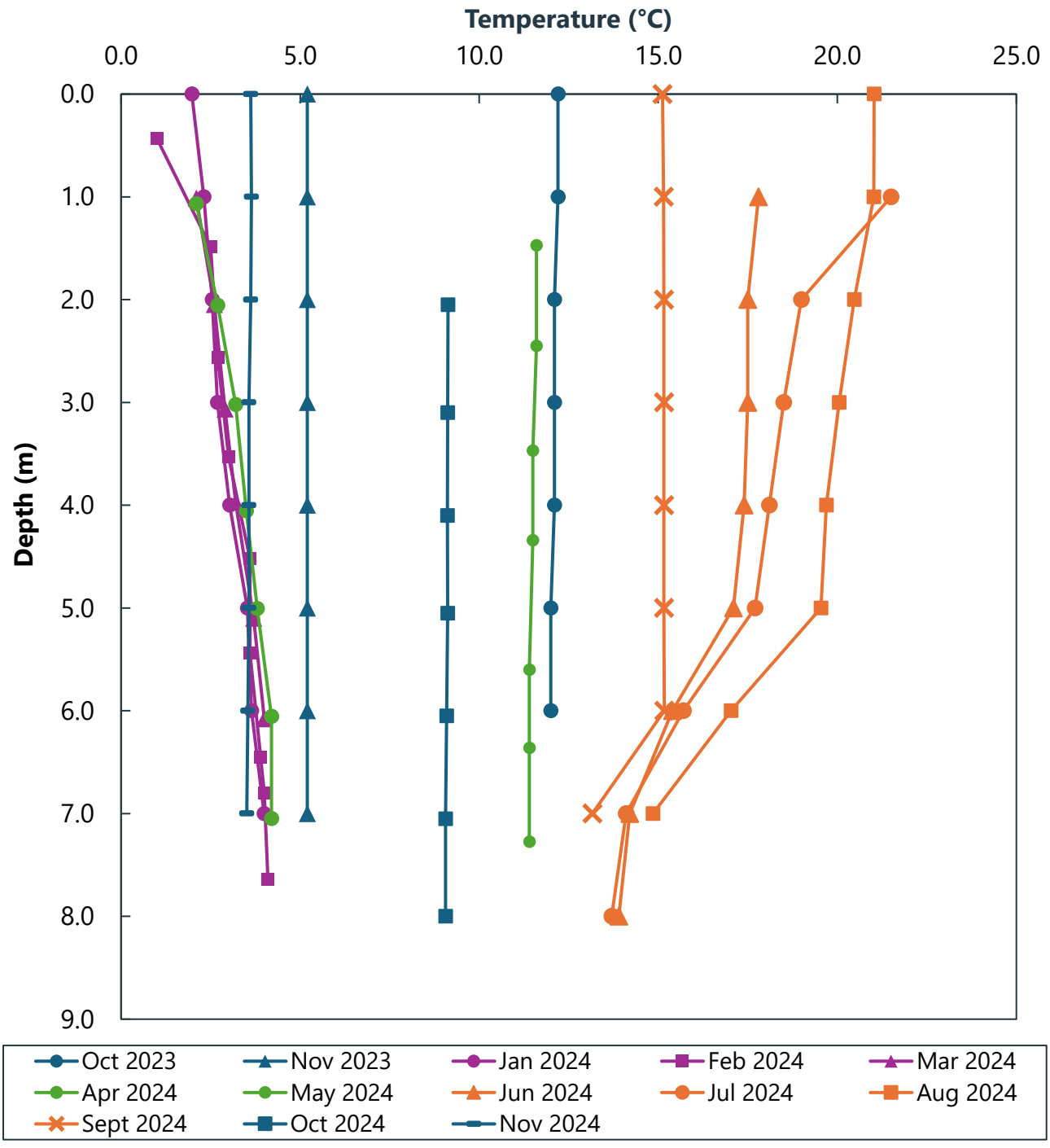


Gullrock Lake Dissolved Oxygen Profile

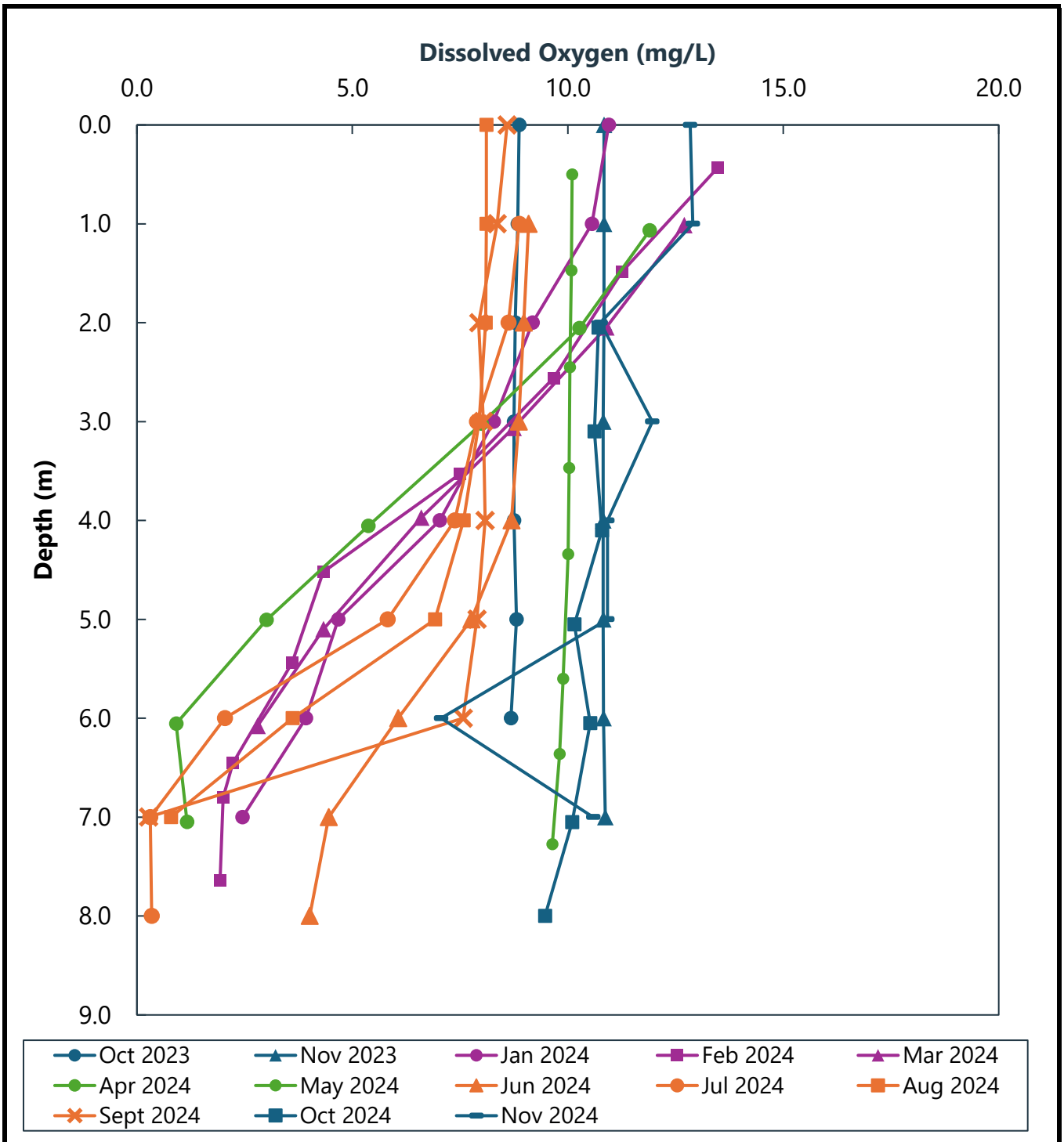
Water Quality Baseline Report

Great Bear Project

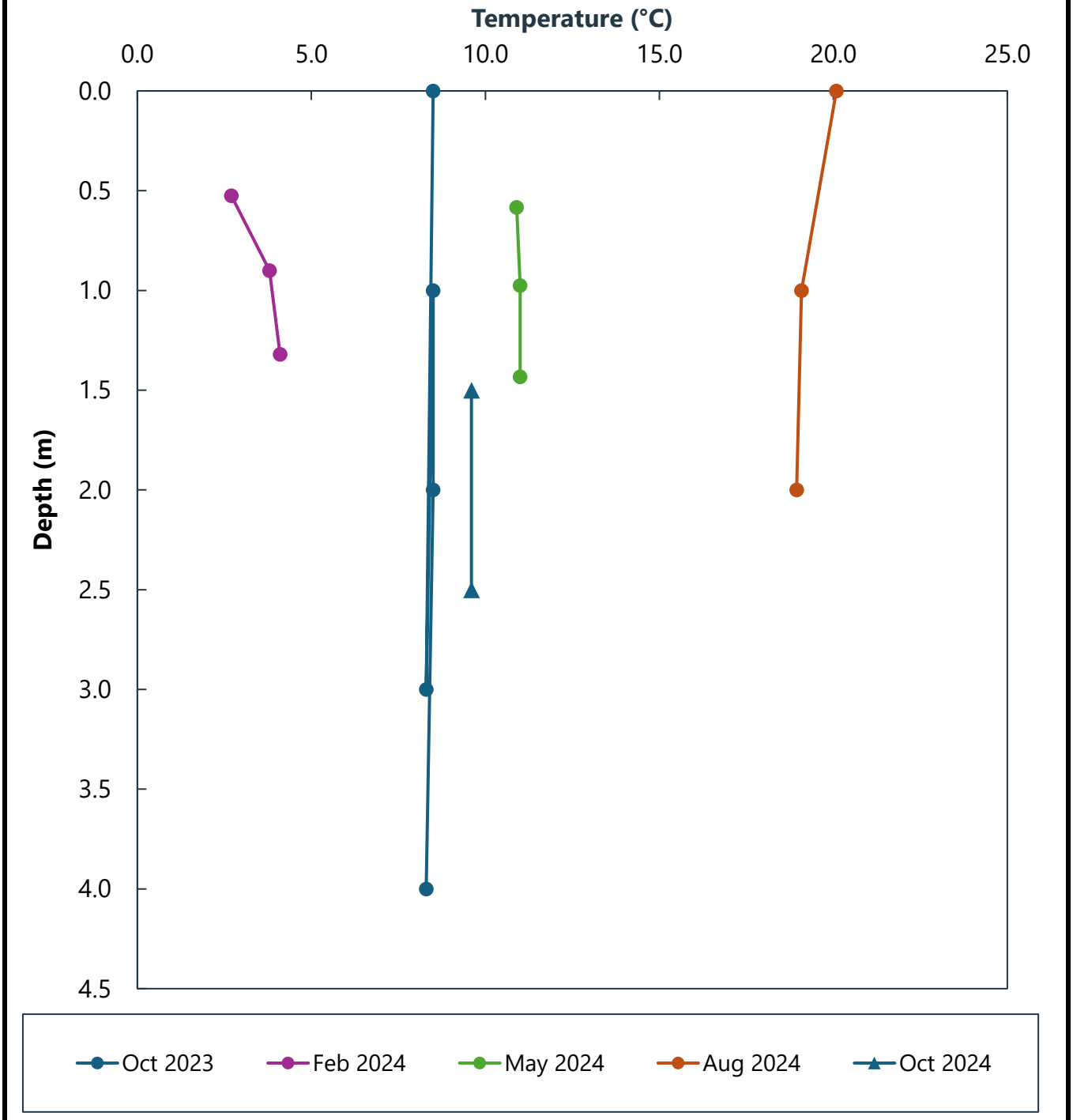
Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	F-12



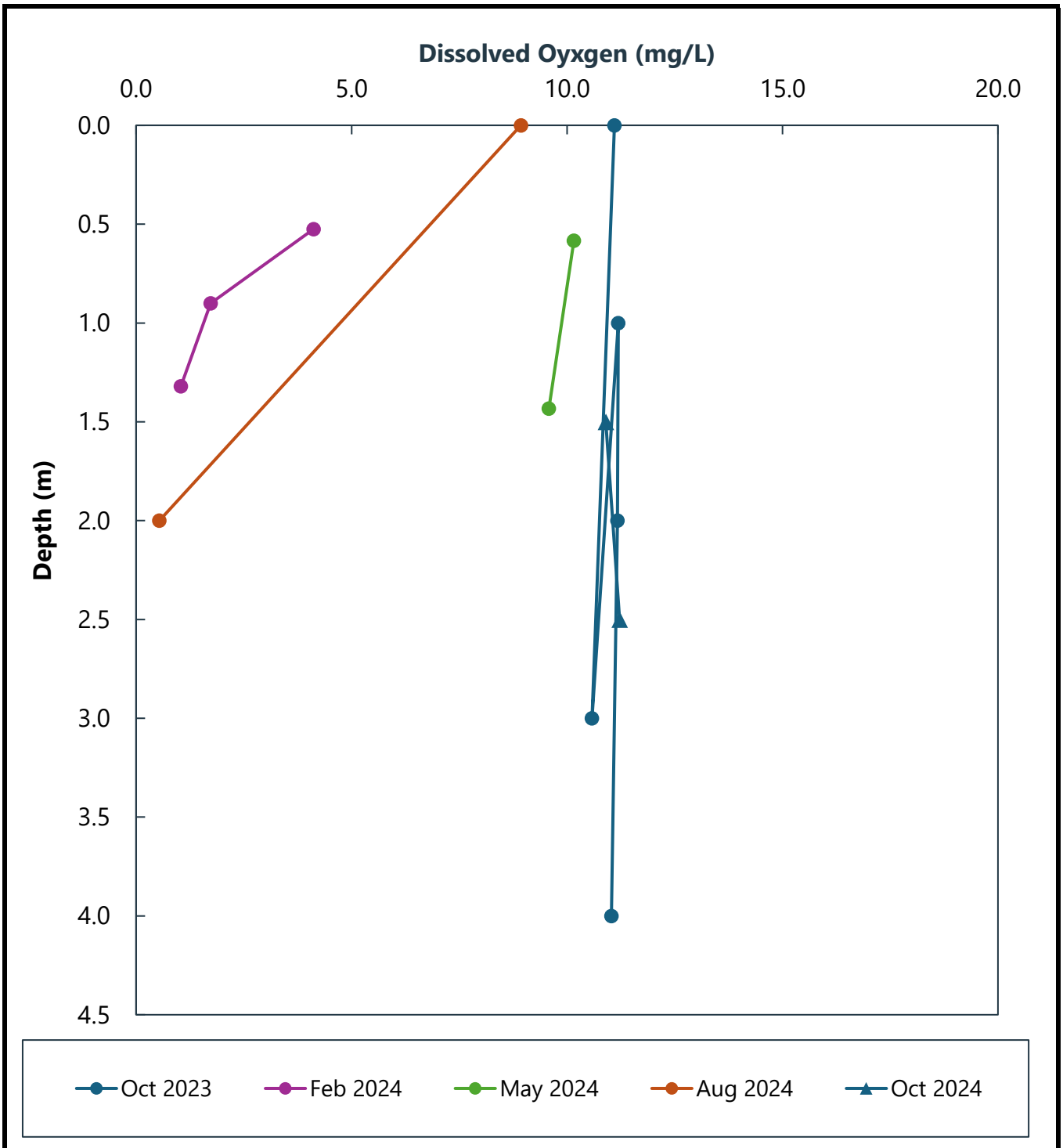
	Genessee Lake Temperature Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-13



	Genessee Lake Dissolved Oxygen Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-14

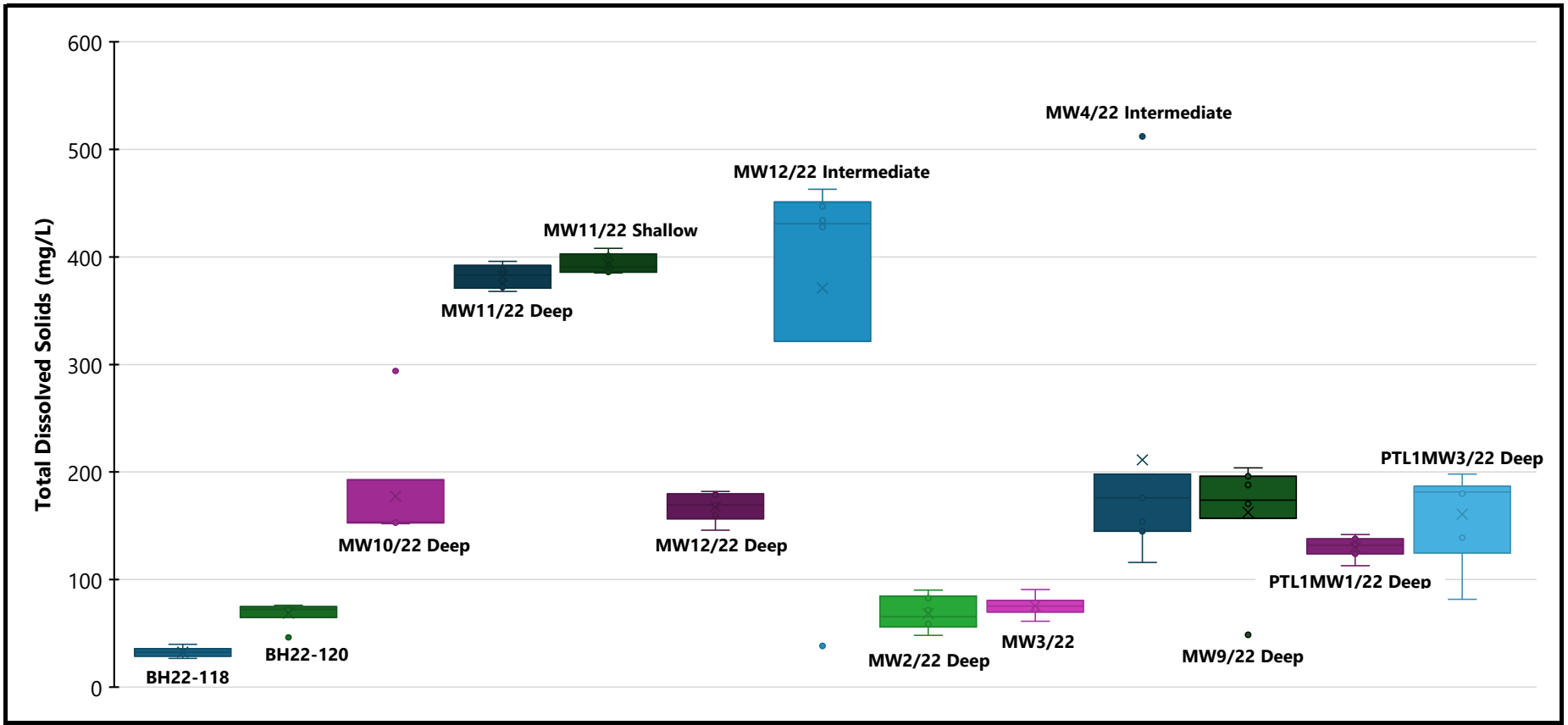


Waterbody 6 Temperature Profile	
Water Quality Baseline Report	
Great Bear Project	
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-15



	Waterbody 6 Dissolved Oxygen Profile
	Water Quality Baseline Report
	Great Bear Project
Drawn by: FL	Date June 2025
Checked by: AE	Figure F-16

Appendix G
Groundwater Quality Graphs



Notes:

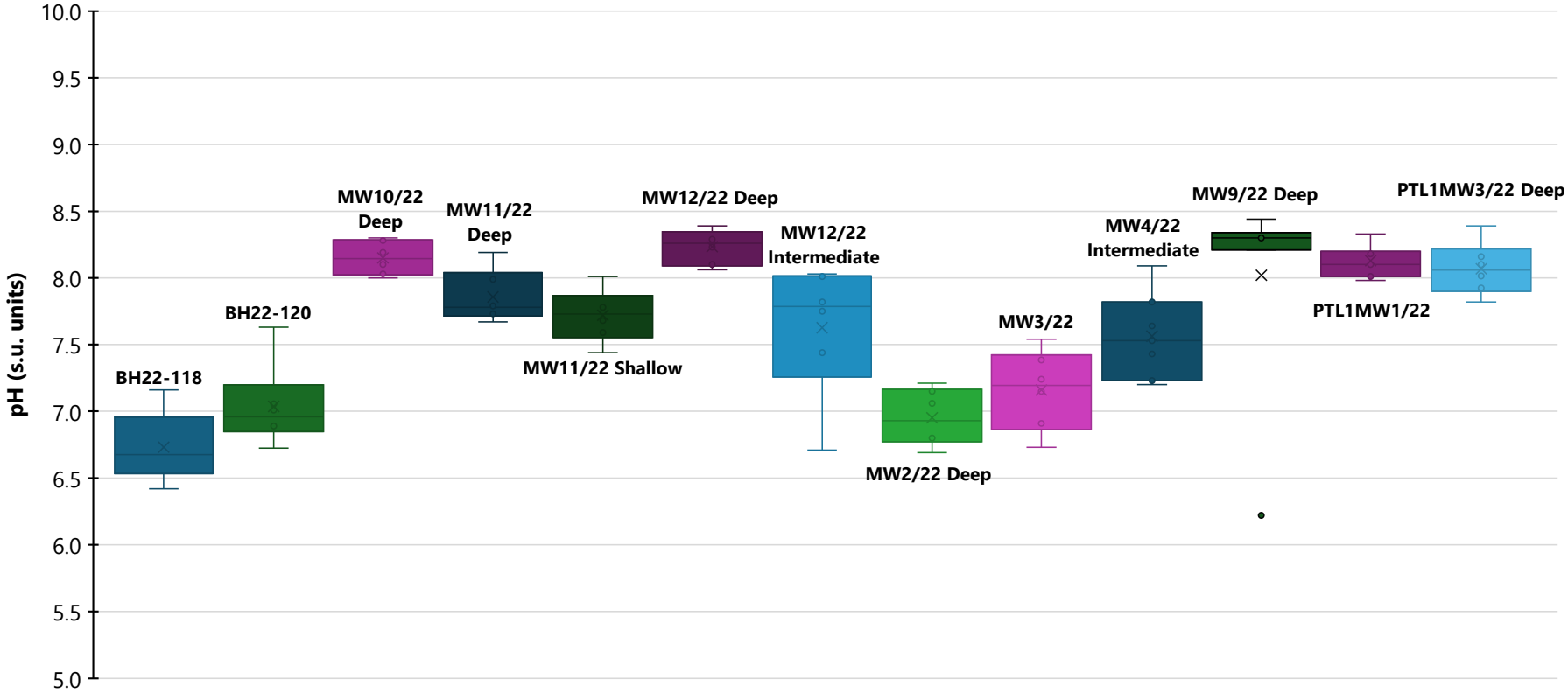
1 - Sampling period includes May, August, and October 2023 and 2024

Groundwater Sampling Seasonal Variation - Total Dissolved Solids

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-1



Notes:

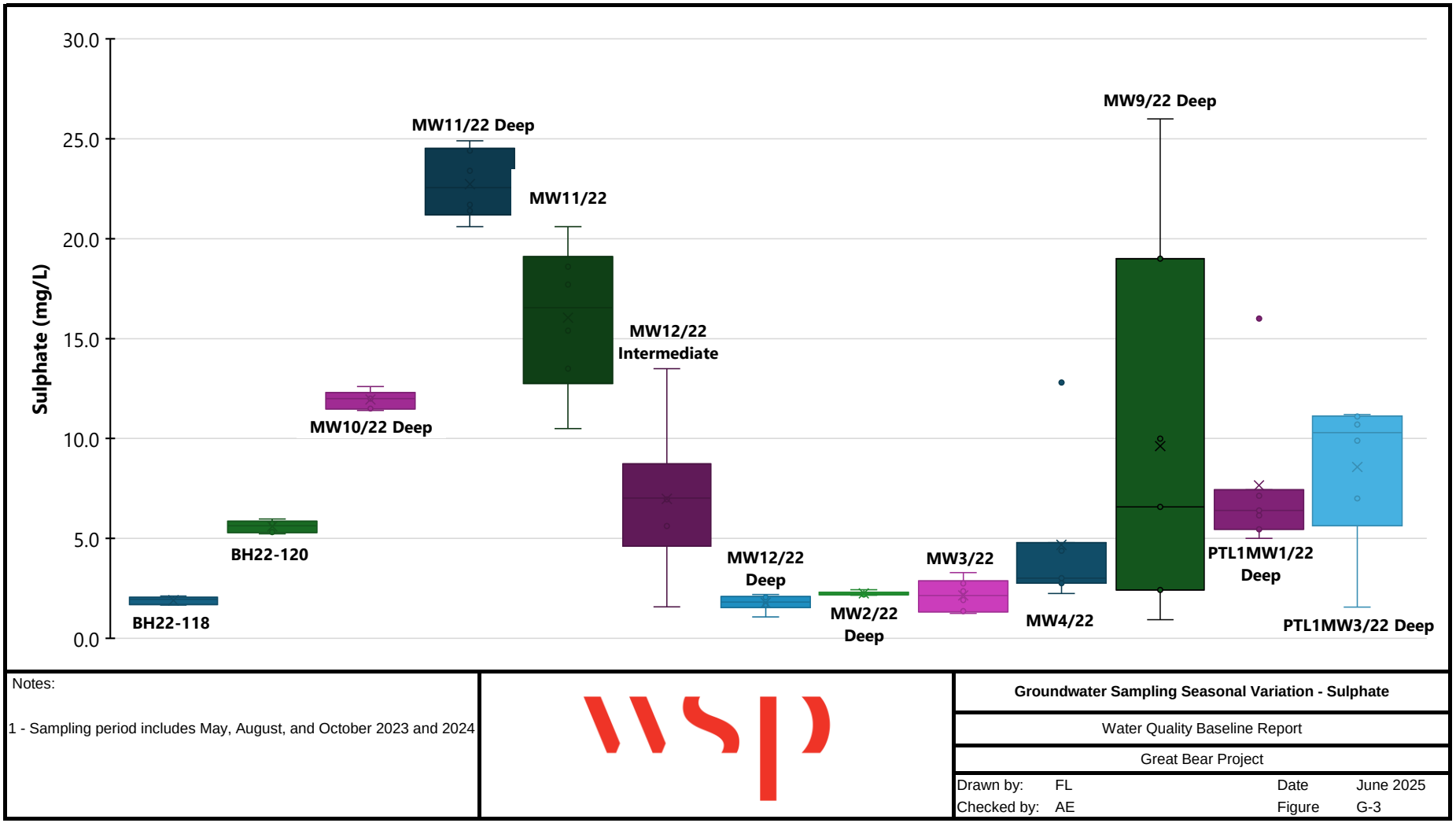
1 - Sampling period includes May, August, and October 2023 and 2024

Groundwater Sampling Seasonal Variation - pH

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-2



Notes:

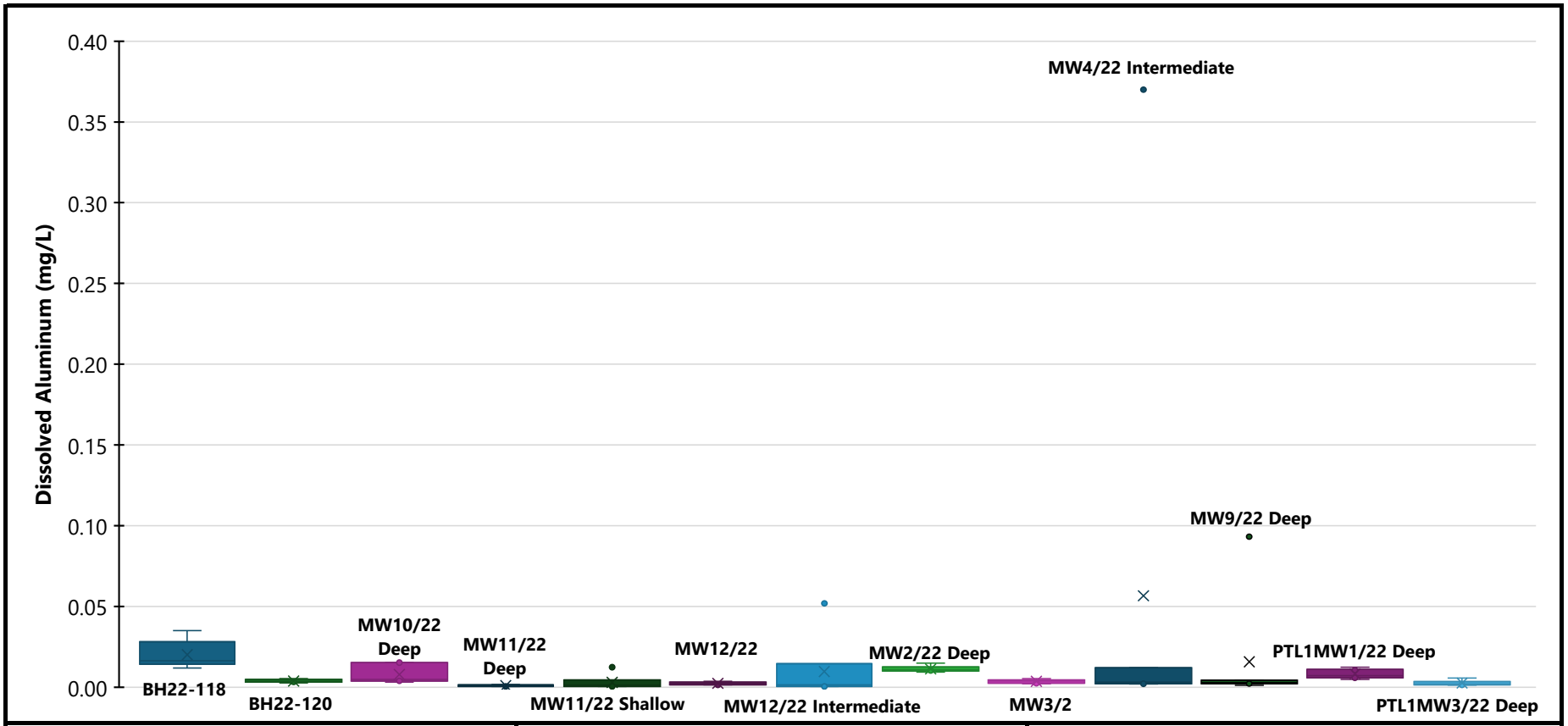
1 - Sampling period includes May, August, and October 2023 and 2024

Groundwater Sampling Seasonal Variation - Sulphate

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-3



Notes:

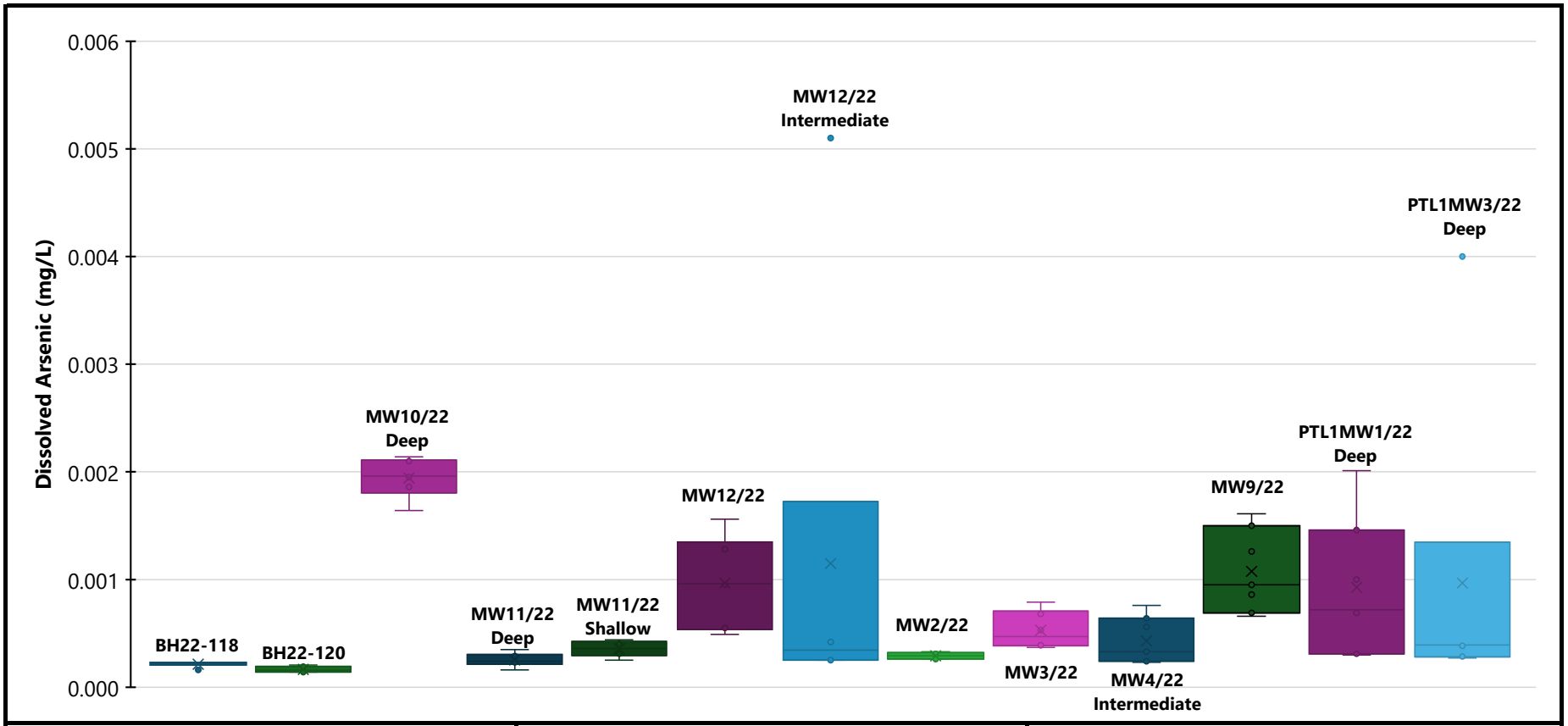
1 - Sampling period includes May, August, and October 2023 and 2024

Groundwater Sampling Seasonal Variation - Aluminum

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-4



Notes:

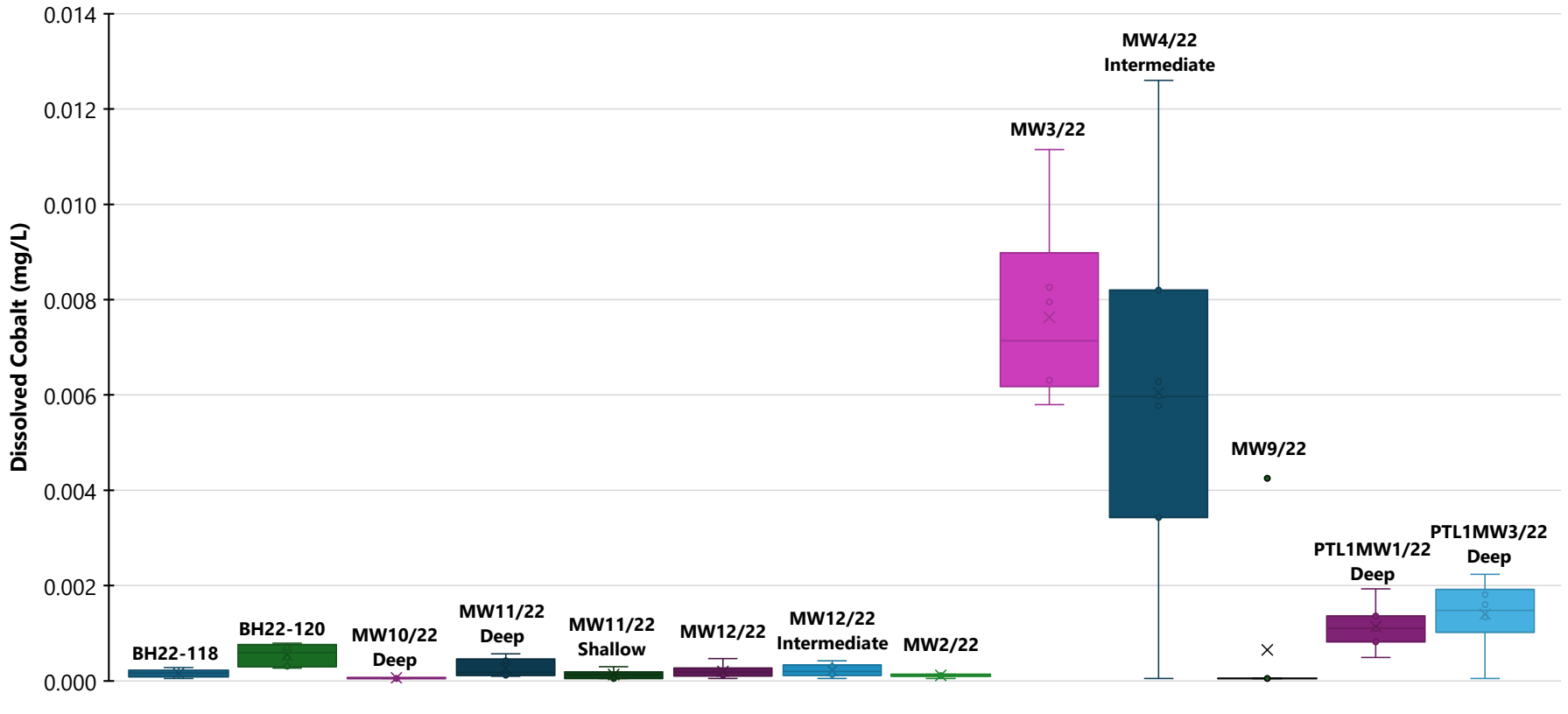
1 - Sampling period includes May, August, and October 2023 and 2024

Groundwater Sampling Seasonal Variation - Arsenic

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-5



Notes:

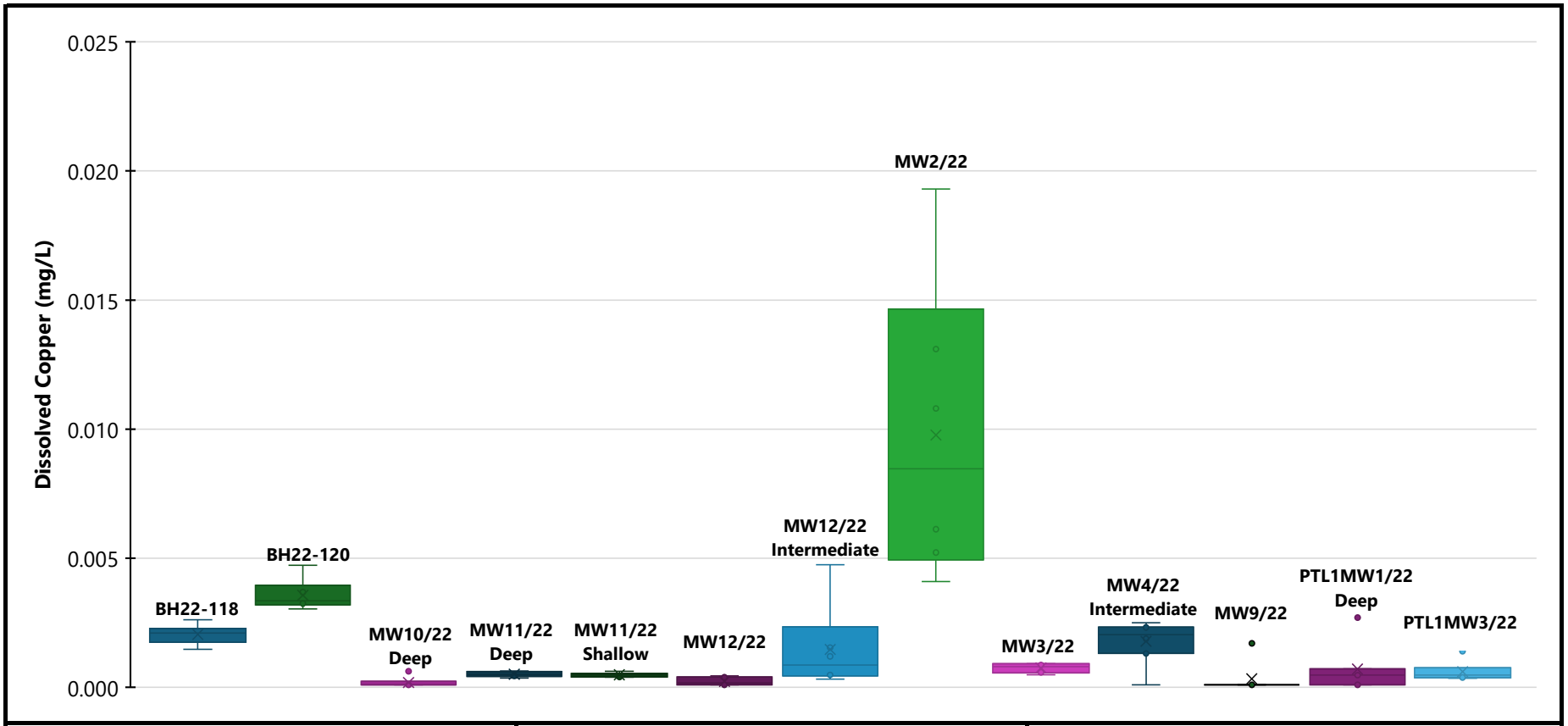
1 - Sampling period includes May, August, and October 2023 and 2024

Groundwater Sampling Seasonal Variation - Cobalt

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-6



Notes:

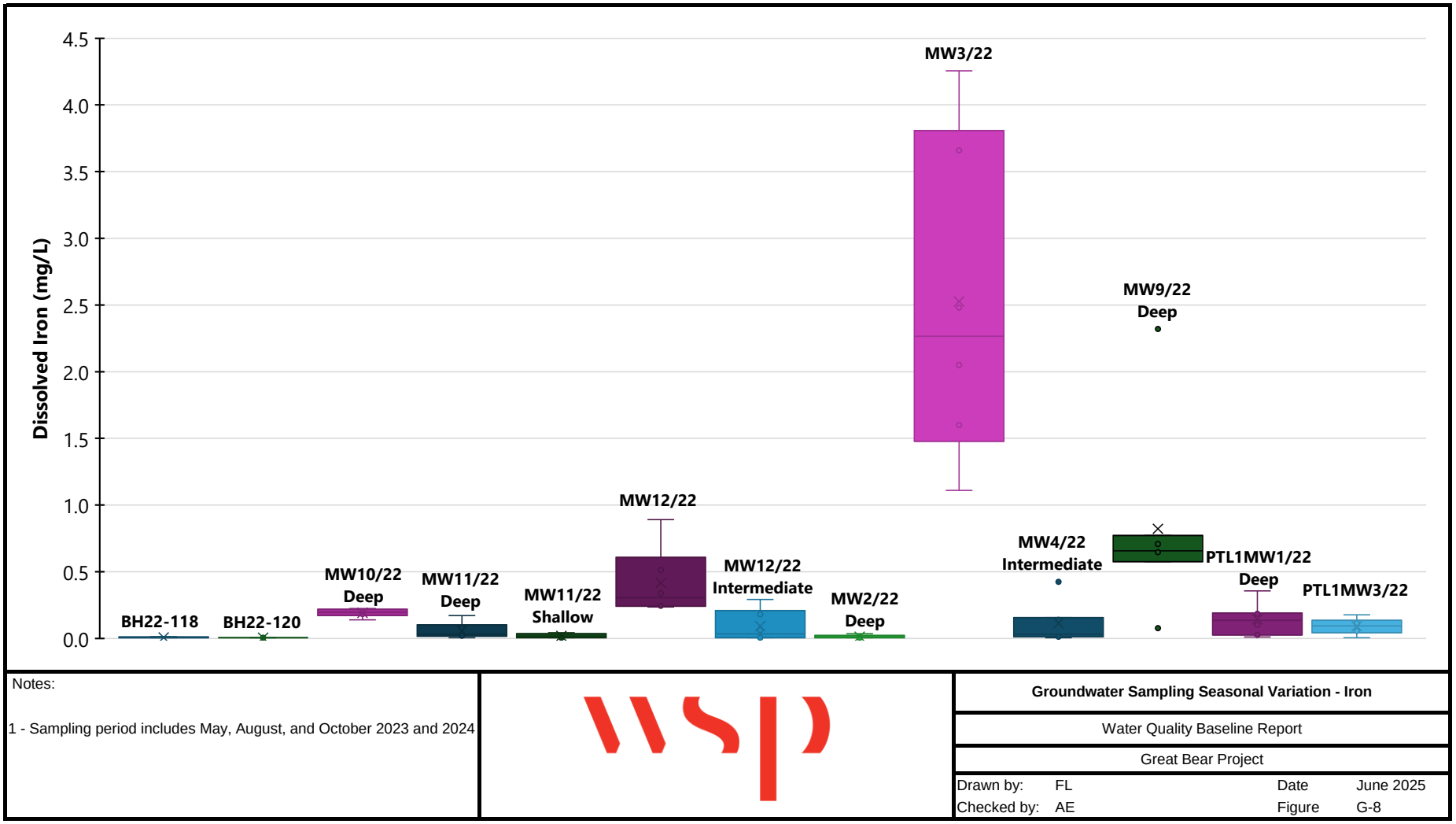
1 - Sampling period includes May, August, and October 2023 and 2024

Groundwater Sampling Seasonal Variation - Copper

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-7



Notes:

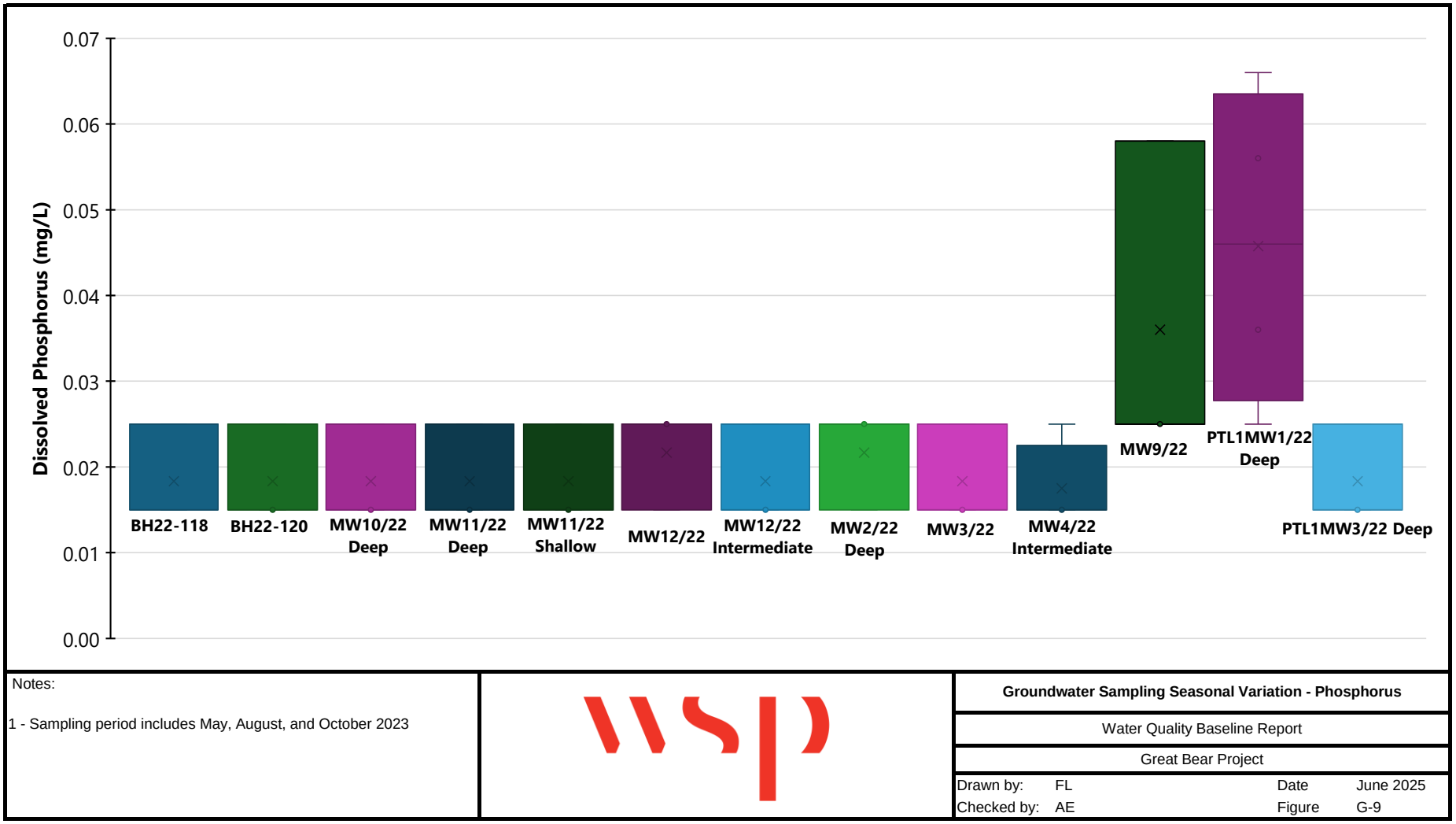
1 - Sampling period includes May, August, and October 2023 and 2024

Groundwater Sampling Seasonal Variation - Iron

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-8



Notes:

1 - Sampling period includes May, August, and October 2023

Groundwater Sampling Seasonal Variation - Phosphorus

Water Quality Baseline Report

Great Bear Project

Drawn by:	FL	Date	June 2025
Checked by:	AE	Figure	G-9